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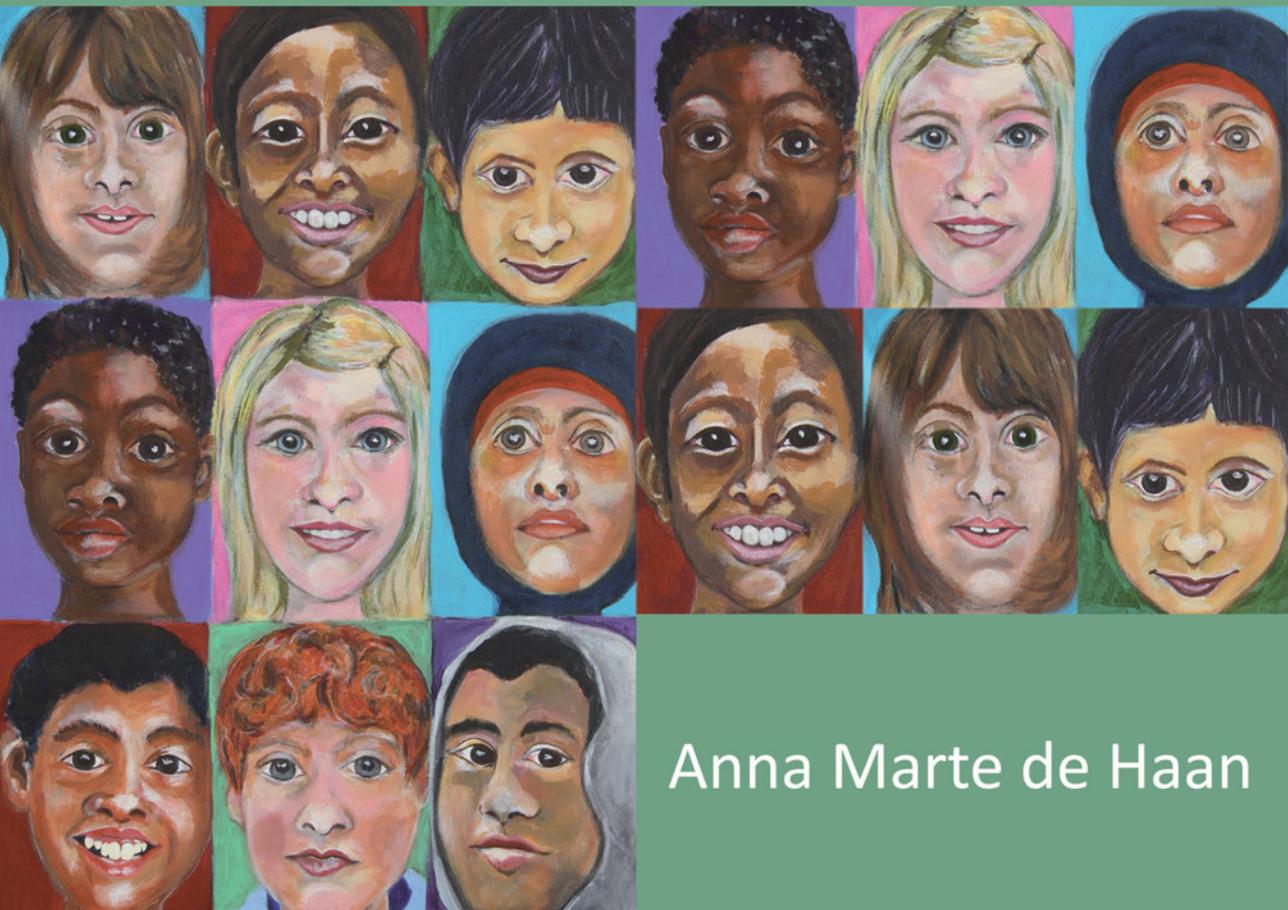
Author: Haan, Anna Marte de

Title: Ethnic minority youth in youth mental health care : utilization and dropout

Issue Date: 2014-09-10



Ethnic minority youth in youth mental health care: utilization and dropout



Anna Marte de Haan

Ethnic minority youth in youth mental health
care: utilization and dropout

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Cover art: Greetje de Haan

Layout: Elwin Roetman

Printed by: Ipskamp Drukkers BV

ISBN: 978-94-6259-275-9

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Ethnic minority youth in youth mental health
care: utilization and dropout

Proefschrift

Ter verkrijging van
de graad van Doctor aan de Universiteit Leiden,
op gezag van Rector Magnificus prof.mr. C.J.J.M. Stolker,
volgens besluit van het College voor Promoties
te verdedigen op woensdag 10 september 2014
klokke 11:15 uur

door

Anna Marte de Haan
Geboren te Utrecht
in 1982

Promotiecommissie

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CHAPTER 1

Introduction

This thesis focuses on three subjects: the accessibility of Youth Mental Health Care (YMHC), the diagnoses given in YMHC, and the premature termination (dropout) of therapy in YMHC. Differences between ethnic groups is the main focus in each of these subjects.

The prevalence of emotional and behavioral disorders (based on meeting symptom criteria) during childhood and adolescence is estimated to be between ten and twenty percent, which is comparable across countries (Lavigne et al., 1996; Rescorla et al., 2007; Rescorla et al., 2011; Rutter & Stevenson, 2008), and over different ethnic groups (Bengi-Arslan, Verhulst, van der Ende, & Erol, 1997; G. W. J. M. Stevens & Vollebergh, 2008; Zwirs et al., 2007). A smaller percentage of youths (i.e., about 7%) is limited in their functioning to such a degree that treatment is indicated (Rutter & Stevenson, 2008). In most western societies, only an estimated 2.5 percent finds its way to youth mental health care (YMHC) (Boon, de Haan, & de Boer, 2010; Meltzer, Gatward, Goodman, & Ford, 2000; Sytema et al., 2006; Zachrisson, Rödje, & Mykletun, 2006), indicating an overall underutilization of YMHC. For ethnic minority youth, this underutilization is considered to be even higher (Boon, De Haan, De Boer, & Klasen, 2014; V. C. Copeland, 2006; Garland et al., 2000; Goodman, Patel, & Leon, 2008; Ivert, Merlo, Svensson, & Levander, 2013; Kodjo & Auinger, 2004; Zwirs, Burger, Schulpfen, & Buitelaar, 2006b). Untreated youth psychiatric disorders are likely to lead to detrimental outcomes later in life, i.e. these children are at increased risk to grow up as adults relying on mental health services, which has negative consequences for themselves, their surroundings and society (Domburgh, 2009; Dulmus & Wodarski, 1996; Gosden, Kramp, Gabrielsen, & Sestoft, 2003; Kazdin & Wassell, 1998; Sytema et al., 2006). Early treatment is not only effective for current disorders, it also has the potential to reduce the risk for disorders later in development (W. E. Copeland et al., 2013; Durlak & Wells, 1997; M.W.; Lipsey & Wilson, 1993; Webster-Stratton, Reid, & Hammond, 2004). Therefore it is clinically relevant to gain knowledge on the causes of underutilization of mental health care services. Both ethnic background and socioeconomic status are seen as important variables in relation to ethnic differences in mental health care utilization (Garland et al., 2005; Zimmerman, 2005). These variables are often correlated, i.e., ethnic minorities likely have a lower SES than majorities (Chen, Martin, & Matthews, 2006; Saxena, Eliahoo, & Majeed, 2002; Urbanus-Van Laar, 2006). It thus is not surprising that ethnic inequalities in health care are, at least to some extent, socioeconomic in nature (Stronks & Kunst, 2009). It is however difficult to find out to what extent each variable contributes to the underutilization, which is relevant because it will determine how mental health services can address the problem of

underutilization. The first aim of this thesis is therefore to describe the utilization of YMHC in the Netherlands. And whether there are differences in service consumption between ethnic groups, between children and adolescents, between males and females, and whether socioeconomic factors play a role in this utilization. It is further important that the disorders of children and adolescents who consult mental health services minority youths are concerned, thus impeding effective treatment (Begeer, El Bouk, Boussaid, Meerum Terwogt, & Koot, 2009; Crone, Bekkema, Wiefferink, & Reijneveld, 2010; Kreps, 2006; Martin, 1993; Reijneveld, Harland, Brugman, Verhulst, & Verloove-Vanhorick, 2005; Van Ryn & Fu, 2003; Zwirs, Burger, Buitelaar, & Schulpen, 2006a). In line with these results it is interesting to analyze whether there are differences between ethnic groups and their received diagnoses in YMHC practice. The second aim of this thesis is thus to describe ethnic differences in the received diagnoses among YMHC patients.

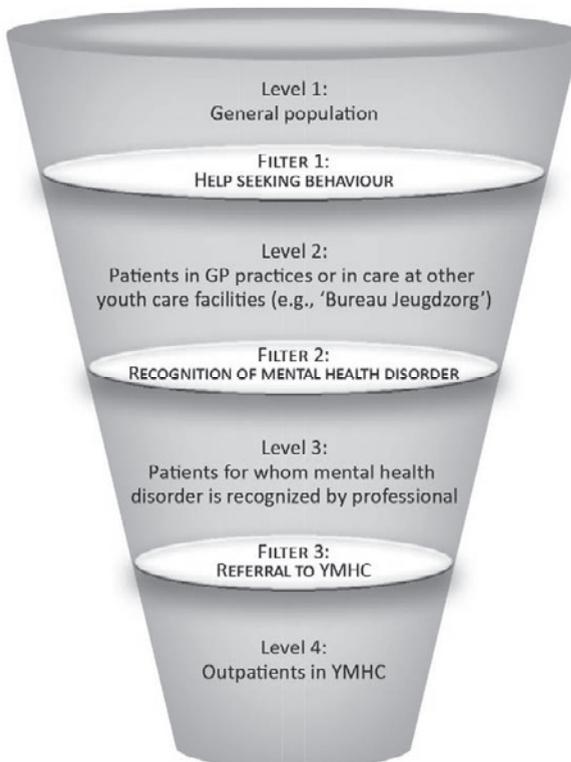
Another important factor contributing to the issue of possible non-effective treatment is the premature termination of treatment. Of all children and adolescents receiving treatment a quarter to up to three quarters terminate psychotherapy prematurely (Baruch, Vrouva, & Fearon, 2009; Lai, Pang, Wong, Lum, & Lo, 1998; Luk et al., 2001; Midgley & Navridi, 2006). As efficacy has been proven for many interventions (Weisz, Jensen-Doss, & Hawley, 2006), completing therapy definitely increases the likelihood of reducing disfunctioning due to psychiatric problems. When children prematurely terminate or drop out of psychiatric treatment, their disorders might persist or even worsen later in life (Dulmus & Wodarski, 1996; Reis & Brown, 1999). In order to prevent these negative consequences of treatment dropout, it is important to gain knowledge of its determinants. The third aim is therefore to describe the variables that relate to dropout and to analyze ethnic differences in dropout of therapy in YMHC.

The pathway to Youth Mental Health Care

As mentioned before, prevalence rates and patterns of disorders in child and adolescent populations are broadly similar across ethnic groups. One may thus expect that ethnic minority groups receive mental health care services at about equal rates as the majority group, which is not the case as we have seen. Underutilization of YMHC can at least partly be attributed to factors in the pathway that leads to these services. An important theoretical approach in understanding this pathway is the 'filter model' (Goldberg & Huxley, 1980), which was adapted

by Verhulst and Koot (1992) and Zwaanswijk and colleagues (2003, 2005a, 2007) for children and adolescents. The filter model discriminates between several levels (the *first level* being the total general population, and the *fourth level* being the patients in outpatient mental health care), each separated by a so-called filter (see figure 1). According to the model, a number of filters have to be passed before treatment in a mental health institution occurs (Colijn, 2001; De Jong, 2010b; De Jong & Van den Berg, 1996; Goldberg & Huxley, 1980; Verhulst & Koot, 1992). Although the focus in this thesis will be on the *fourth level* (i.e., outpatients in YMHC), the filters that precede this level will be described here to gain understanding of the mechanisms that lead to treatment in YMHC.

Figure 1: Filter Model for the pathway to YMHC



In the *first filter* the perception and the recognition of psychiatric problems by individuals and their parents, relatives, friends, or teachers, determine the eventual decision to consult a professional. De Swaan (1979) introduced the term 'proto-professionalization' to describe the extent to which individuals have the capacity to obtain, process, and understand basic health information, and have knowledge about the services needed to make appropriate health decisions. Where children are concerned parents have an important role in the help-seeking process, as do other relatives and teachers (Zwaanswijk, 2005). During adolescence parents continue to play a role in initiating the help-seeking process, although the process is characterized by increasing autonomy and the adolescent's own problem recognition. Next, the problems have to be presented to the GP or the youth care worker (i.e., from 'Bureau Jeugdzorg'). And subsequently in the *second filter* the problems have to be recognized by these professionals as being psychiatric problems. GPs and youth care workers may or may not detect and identify cases that are presented to them, and may or may not decide to treat these cases in general practice. In the *third filter* part of these cases will be referred for diagnostic examination or treatment in YMHC.

The process of 'selective filtering' is likely to explain to some extent why ethnic minority youth tend to make less use of mental health care than majority youth, despite similar prevalence rates (Colijn, 2001). According to Colijn (2001), De Jong and Van den Berg (1996), and De Jong (2010b) the filters have differential effects for different subgroups within the population, and are therefore more easily passed by some ethnic groups than by others. For instance, some ethnic minority groups are less familiar with mental health problems and with the possibilities of professional care than majorities, and the *first filter* might therefore be more easily passed by ethnic majority groups (Colijn, 2001). In addition, ethnic minority groups also tend to seek help with traditional or alternative healers, and according to some authors they should be added to the filter model when describing the pathway to YMHC for ethnic minority youth (Bhui & Bhugra, 2002). Healers may refer patients to the GP when they suspect (mental) health problems that they cannot cure themselves.

Next, GP's or other primary care or educational workers in the *second filter* might recognize mental health problems more easily among children of a majority background than among children of an ethnic minority background, which is likely to affect decisions on referral to mental health care services. For instance, there may be differences in verbal and non-verbal

presentation, in cultural definitions of important Western concepts like self and insight, the transcultural normality or deviance of ideas like hearing voices, in the believe that mental health care will work, in the knowledge of and trust in psychiatric treatment, and so on (Colijn, 2001; De Jong, 2010a). After children and adolescents are referred (*third filter*) to YMHC by the primary care workers, professionals working there have to decide which emotional and behavioral problems are present (i.e., the diagnostic process), and whether these patients are correctly referred.

As mentioned before, in this thesis the focus will lay on the *fourth level* (i.e., outpatients in YMHC). We will analyze which children and adolescents arrive at this level and which diagnoses these patients receive. The processes in the three preceding filters thus determine who will arrive at this fourth level. The described process of selective filtering indicates that ethnicity is an important factor influencing transition through the three different filters. It is unclear however, whether ethnicity influences the pathway to YMHC equally among age and gender groups. As mentioned before, ethnic majority youth underutilize YMHC as well, although little is known about the exact distribution of the utilization over age and gender groups. Hence it is important to focus not only on the ethnic background but also on the age and gender of patients. This thesis thus intends to study utilization of YMHC by ethnic, gender and age group. Because ethnic background and socioeconomic status are correlated, several authors state that SES actually explains the differences on the utilization of mental health care between ethnic groups (Cooper, 2002; Stronks & Kunst, 2009). However, Garland and colleagues (2005), Wu and colleagues (2001), and Kamperman and colleagues (2007) analyzed the ethnic disparities in use of YMHC while controlling for socioeconomic position, and found that ethnic disparities in the utilization of mental health services still remained. Although these are important studies, they focused on the situation in the United States (Garland et al., 2005; Wu et al., 2001) or on adults in The Netherlands (Kamperman et al., 2007). In the United States the insurance status of the patients always interferes with the SES and the possibility to receive (mental) health care. In most European countries however, the whole population has health insurance and insurance status is much less a confounding factor. It is therefore important to investigate the association between ethnic background, SES and youth mental health service use in European countries. Insights gained may determine how European youth mental health services can address the problem of underutilization.

Once children and adolescents have been referred to YMHC, decisions are made on the diagnosis and the treatment that is needed. Diagnostic accuracy is important because it predicts better therapy engagement, a decreased likelihood of therapy dropout, and better treatment outcomes (Jensen-Doss & Weisz, 2008). As stated before, psychiatric disorders are underdiagnosed in ethnic minority youth in particular, which, among other factors, can be attributed to the influence of ethnic stereotyping (Begeer et al., 2009; Kreps, 2006; Reijneveld et al., 2005). A number of studies have shown that clinicians assign different meanings to the same behaviour depending on race, class, or other demographic characteristics of the individual involved (Snowden, 2004; Van Ryn & Fu, 2003). For instance, in one study with a group of children that scored within the clinical range of an emotional and behavioural problem self-rating questionnaire, mental health care professionals recognized psychiatric problems among 9,4% of the ethnic minority children and among 21,4% of the native Dutch children (Reijneveld et al., 2005). Also, paediatricians more often diagnosed autism when judging clinical vignettes of European majority cases (Dutch) compared to vignettes including non-European minority cases (Moroccan or Turkish) (Begeer et al., 2009). Underdiagnosis is more likely to occur when diagnoses are made in an unstructured clinical interview by a single diagnostician, which is the assessment method most often used in the practice of YMHC (Cashel, 2002; Zayas, Cabassa, Perez, & Howard, 2005). It is therefore important to gain knowledge on differences between ethnic groups in the received diagnoses in the practice of YMHC, which will be illustrated in the present thesis.

Treatment adherence in Youth Mental Health Care

Compared to children receiving treatment, children with untreated behavioral problems or premature terminators are more likely to leave school without a qualification, engage in delinquent activities, abuse drugs and alcohol and become unemployed (Alonso, Chatterji, & He, 2013; Lochman & Salekin, 2003; Moffitt, Caspi, Harrington, & Milne, 2002). Also, untreated early-onset anxiety disorders often continue into adulthood (Dadds et al., 1999), and academic underachievement and substance dependence are likely to follow (Woodward & Fergusson, 2001). In addition, the pathway to YMHC is a difficult one, as we have described in the former paragraph. Evidence-based therapy is known to increase the likelihood that psychiatric problems get resolved and functioning is improved (Weisz et al., 2006). And it is undesirable that therapy,

once it is started after the difficulties in accessibility, is prematurely terminated. It is thus important to gain knowledge of the dropout determinants in order to be able to prevent it.

Dropout predictors can be divided in three major groups: child factors (e.g., ethnic background, problem severity, age, gender), family factors (e.g., socioeconomic status, family composition, living situation), and therapy or therapist factors (e.g., therapeutic relationship, perceived relevance of treatment, waiting time) (Armbruster & Kazdin, 1994; Kazdin, Holland, & Crowley, 1997a). Studying child and family factors may lead to the identification of patients being at risk for dropout. Extra attention to these patients may prevent dropping out. Therapy factors are factors that can be changed during the course of therapy. For instance, the therapist is able to influence the therapeutic relationship during treatment. All three groups of predictors need different interventions in order to prevent dropout. A mere identification of the child and family factors without conceptualizations of the underlying process of premature termination (i.e., therapy and therapist factors) is unlikely to improve the understanding of dropout (Armbruster & Kazdin, 1994).

A theoretical model to understand underlying processes of dropout was introduced by Kazdin and colleagues; the barriers-to-treatment-participation model (Kazdin et al., 1997a; Kazdin, Holland, Crowley, & Breton, 1997b). This model proposes that families experience multiple barriers associated with participating in treatment, which increase the risk for dropping out. The absence of barriers may serve as a protective factor, i.e., for families with a high risk for dropping out, the presence of only a few barriers might attenuate the risk (Kazdin et al., 1997b). Many studies on dropout in child and adolescent psychotherapy have shown inconsistent results. It is therefore hard to discern the characteristics of child and adolescent patients that dropout of treatment and the conditions under which dropout occurs. In order to structuralize the findings of various dropout studies, a review or meta-analysis should be done. The last review was conducted in 1994 (Armbruster & Kazdin, 1994). In this thesis we will update the findings on dropout studies in child and adolescent therapy by conducting a meta-analytic review of the studies published later than 1994. Considering that ethnic minority youth are treated less often for their mental health problems than ethnic majority youth, analyzing the levels of dropout among ethnic minorities, as well as ethnic-specific dropout determinants carries substantial importance. This has become feasible since several dropout studies specifically focused on ethnic minority children, or described the ethnic background of their

respondent group. Therefore, a review specifically focusing on the ethnic minority status aspect in dropout studies will also be included in this thesis.

The earlier described interplay between ethnic background and socioeconomic variables also accounts for the predictors regarding dropout. Indeed both factors were found to be predictive for dropout (Kazdin & Wassell, 1998; Kendall & Sugarman, 1997; Peters, Calam, & Harrington, 2005; Warnick, Gonzalez, Weersing, Scahill, & Woolston, 2012), while the relationship between both is not clear. Nor is it clear for which specific ethnic or socioeconomic groups the risk for dropping out is elevated. This thesis will try to extend the knowledge on dropout in psychotherapy with ethnic majority and minority children and on the interfering relationship of ethnic background and SES variables. Until now, most studies did not specifically make a distinction by age, i.e., some studies only had children as their respondent group while other studies only included adolescents. Or both groups were included without differentiating by age. In contrast to adults and in a lesser extent to adolescents, children rarely seek mental health treatment for themselves. Motivation for coming and remaining in treatment largely depends on others, foremost parents, but also teachers and referral agents. Frequently, parents participate in their children's treatment and consequently parent and family characteristics are likely to play a central role in continuation or termination of treatment. Probably, parent and family characteristics are more significant in child therapy and less significant in adolescent therapy (Armbruster & Kazdin, 1994). It is thus important to study dropout for children and adolescents separately.

One of the important determinants of dropout is the quality of the therapeutic relationship between the child or family and the therapist (Garcia & Weisz, 2002; Hawley & Weisz, 2005; Kazdin & Wassell, 1998; J. Stevens, Kelleher, Ward-Estes, & Hayes, 2006). Therefore, developing effective therapeutic relationships with young patients and their family members may facilitate engagement and lessen resistance to treatment by providing a stable, accepting and supportive context within which therapy may take place (Karver, Handelsman, Fields, & Bickman, 2006). There is evidence from several studies that a negative or weak therapeutic relationship is predictive of therapy dropout with children and adolescents (Zack, Castonguay, & Boswell, 2007). Much variation in the moment at which the therapeutic relationship was measured limits generalizability of findings in previous studies. In some studies, it was measured in retrospect at the end of therapy by asking the parents and/or child to complete a questionnaire, while in other studies trained observers rated the therapeutic alliance

at one or two therapy sessions during the course of therapy (Cordaro, Tubman, Wagner, & Morris, 2012; Hawley & Weisz, 2005; Pereira, Lock, & Oggins, 2006; Shelef, Diamond, Diamond, & Liddle, 2005; J. Stevens et al., 2006). Each of these methods has its shortcomings. Measuring the relationship by observers may be considered a limited approach, as it does not take the patients' opinion about the relationship directly into account. It depends on the observer how the relationship is rated. Measuring the relationship after therapy is likely biased as it is influenced by the way patients and parents feel at that termination point. In addition, parents can hold a different view of the therapeutic relationship than the child. It thus makes more sense to measure the therapeutic relationship during several sessions of the therapy process (Zack et al., 2007). We therefore intend to extend and specify insights on the association between the therapeutic relationship and dropout in psychotherapy with ethnic minority children and adolescents by measuring the therapeutic alliance during the course of psychotherapy.

Central concepts and major aims of this thesis

Specification of ethnicity

Ethnic background was determined by the country of birth of both parents. Based on their parent's country of birth, children were categorized into ethnic groups. The country-of-birth criterion has been used in the Netherlands to determine ethnicity since the 1990s (Boon & Colijn, 2001; Den Heeten & Verweij, 1993). If the country of birth of both parents is the Netherlands (regardless of the country of birth of the person himself), a person is seen as native Dutch (CBS, 2012). If one or both parents are born abroad, a person is seen as ethnic minority. The term native Dutch is a difficult one to use. In countries such as the United States or Australia for instance, natives are the native inhabitants (e.g., Indians or Aborigines), who are nowadays the minority groups while the non-native Caucasians are nowadays the majority group. In most European countries such as the Netherlands, the natives are the Caucasian majority group, while the non-natives are the minority groups. For international purpose, it is therefore better to use the term majority group versus minority groups when describing the differences between both groups and especially the disadvantaged position of the minority groups. When describing the Dutch situation, it is accepted to use native Dutch population versus the non-native population or the ethnic minority population.

The majority of non-natives in the Netherlands originate from Morocco, Turkey, Suriname or the Dutch Antilles. The Moroccans and Turks are mainly descendants from labour migrants who have migrated from to the Netherlands since the 1960s and 1970s (Bocker, 2000; Nelissen & Buijs, 2000). Surinamese have come to the Netherlands since 1975, during the process of decolonisation (Van Niekerk, 2000). The Dutch Antilles consists of six islands in the Caribbean, which were part of the Netherlands until 2010, three of them still are now. After the 1960s the group that came from these islands consisted primarily of labour migrants, while before it were mainly children of white colonists and the local elite who came to the Netherlands to study at universities (Van Hulst, 2000). Besides these four main ethnic minority groups, many other groups are residing in the Netherlands nowadays. These inhabitants come from other African countries, the Middle East, Asia, and Latin America who migrated due to the processes of decolonisation, refugee movements following conflicts and civil disturbances, and the collapse of the Soviet Union.

For the purpose of our thesis, a division in seven ethnic groups was made: native Dutch, Surinamese, Antillean, Turkish, Moroccan, Other non-native western, and Other non-native non-western. Following the guidelines of the Dutch government (CBS, 2012), European countries (except Turkey), North-America, Oceania, Japan, Indonesia and the Asian part of the former USSR were considered as western countries. Turkey, Africa, Latin America and the rest of Asia were considered as non-western countries.

Specification of dropout

In former dropout studies, there is an enormous variation in operational definitions of premature termination and classification of dropout status. Many studies define dropout in terms of treatment duration or number of sessions completed, in which clients attending less than the specified number of sessions are categorized as dropouts (Wierzbicki & Pekarik, 1993). Some patients, although terminating treatment earlier than planned, can still be considered successful terminators, because sufficient improvement in their mental health was achieved in a shorter than planned duration. A definition based on a predetermined number of sessions will thus result in a dropout group comprised of a mixture of dropouts and appropriate premature terminators.

In this thesis, we used the opinion of the therapist, the parent, and the adolescent to determine who should be regarded as a dropout. After therapy had ended, both the therapist

and the patient (or in the case of children under the age of 12, the parents) were asked why the therapy had ended. Only when both the therapist and the patient agreed that therapy goals had been reached, or when both agreed to terminate while not all goals had been reached, was the patient classified as a completer. Completion was thus defined as “the termination of outpatient treatment at any point of time during therapy, that occurred with accordance of both the therapist and the patient or parent, while both agreed that treatment goals were (at least partly) reached”. Dropout was defined as “the termination of outpatient treatment at any point of time after inscription, that occurred on the child’s or parents’ unilateral decision, while the therapist thought that further treatment was needed”.

Major aims

This thesis has three major aims. The first aim is to describe the utilization of Youth Mental Health Care (YMHC) in the Netherlands: whether there are ethnic differences in this utilization between ethnic groups, between children and adolescents, and between males and females, and whether socioeconomic or ethnic background play a role in this utilization (**chapter 2 and 3**). Second, to describe ethnic differences in the psychiatric classification (DSM) in youth patients receiving mental health care (**chapter 4**). Third, to describe dropout predictors in YMHC and ethnic differences in these dropout predictors (**chapter 5 to 8**). The three major aims will be addressed by focusing on specific sub-aims in the several chapters of this thesis. These will be described in more detail below.

Three different data sets were used:

- Dataset A: the patient population. We used the data of two YMHC sites in The Hague (and its surrounding areas), one of the four main cities of The Netherlands: *De Jutters*, a general mental health care institution for children and adolescents, and *i-psy de jutters*, an intercultural specific mental health care institution for children and adolescents. Within these institutions, patients aged 0-23 can be treated on ambulatory, clinical, or day-care basis. For the patient population, we used data of all patients that were registered at the two sites in 2008 and 2009.
- Dataset B: the general population. We used data of the general population of The Hague and its surroundings (i.e., ethnic background of the inhabitants and average year income) in 2008 and 2009, drawn from municipality files.

- Dataset C: published studies. Data of published studies in English (1994-2013) on dropout in child and adolescent psychiatry were used to conduct a meta-analytic review and a literature review.

Outline of thesis

In **chapter 2** the aim is to describe ethnic, gender, and age differences in utilization of YMHC in The Hague. Dataset A and B were used for this aim. Patients' ethnic backgrounds were compared to the general population distribution of the same region. Relative Risk ratios (likelihood) of YMHC utilization for ethnic minority groups were calculated with native Dutch youth YMHC utilization as the reference group. **Chapter 3** aims to describe the relationship between YMHC utilization, ethnic background, and a specific socioeconomic variable (i.e., the average income of the district that the patients live in). Again, both dataset A and B were used. Regression analyses with average year income (as an indicator of SES), and the percentage of native Dutch and ethnic minority inhabitants as independent variables, and the percentage of youngsters in treatment as the dependent variable were conducted.

The aim of **chapter 4** is to describe ethnic differences in the received DSM-classifications of YMHC patients. Dataset A was used for this purpose. Odds Ratios (probability ratios) on psychiatric diagnoses made by clinicians for the ethnic minority groups were calculated with native Dutch youth as the reference group

In the **5th chapter** the aim is to structuralize the knowledge on dropout predictors. We conducted a meta-analytic review by using dataset C and calculated effect sizes for each predictor. The aim of **chapter 6** is to specifically extend the knowledge on dropout predictors in therapy with ethnic minority youth. We used dataset C and conducted a literature review.

Chapter 7 aims to gain knowledge on differences in dropout predictors (such as ethnic background) between children and adolescents in YMHC in The Hague. This was done by using dataset A. We used multinomial logistic regression models to test the strength and significance of each potential predictor. In the **8th chapter** the aim is to study the quality of the therapeutic relationship (i.e., an important dropout predictor) in therapy with ethnic minority youth. General Estimation Equations (GEE) were used to analyse longitudinal repeated measurements within the same subjects of dataset A. Finally, the main findings of this thesis are summarized and discussed in **chapter 9**.

CHAPTER 2

Ethnic differences in utilization of youth mental health care

Ethnicity & Health, 2012, 17(1-2): 105-110

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Abstract

Objective There is an overall underutilization of youth mental health care (YMHC). It is unknown whether underutilization differs per ethnic group. Therefore, this study is aimed at gaining insight in the effects of ethnicity, age and gender on this utilization.

Design The sample consisted of outpatient children (age 5-10) (n = 1940) and adolescents (age 11-19) (n = 2484) admitted to a Dutch YMHC centre. Ethnic background of the patients (patient registration system) was compared to that of the general population (municipality files). Relative risks on utilization for non-native groups were calculated with natives as the reference group.

Results With regard to children, female children from Moroccan, Turkish and other non-native western descent were less likely to enter mental health care than native Dutch female children. The RR was 0.24 for Moroccan girls, 0.53 for Turkish girls, and 0.60 for girls from other non-native western countries. Male children from almost all non-native groups were also less likely to enter mental health care than native Dutch male children, with the RR's being between 0.43 and 0.65. With regard to adolescents, most ethnic minority adolescents, were as likely as native Dutch adolescents to enter mental health care. An exception were males and females from Morocco and males from Turkey and non-native western countries, who were less likely than native Dutch adolescents to enter mental health care (RR's between 0.61 and 0.80).

Conclusion and discussion Results imply that YMHC is less accessible for children from a ethnic minority background than for children from a native Dutch background. With for adolescents, there is no difference in accessibility between Dutch natives and ethnic minorities. Future research should focus on the reasons for this difference in accessibility. Potential mediators such as socioeconomic status, discrimination, acculturation processes, language barriers should be taken into account.

Keywords: ethnic minorities; underutilization; youth mental health care.

Introduction

The prevalence of psychiatric problems during childhood and adolescence is estimated to be between 10 and 20% (Rutter & Stevenson, 2008). About seven percent of the young population is limited in their functioning to such a degree that treatment is indicated (Rutter & Stevenson, 2008). Several studies done in western Europe (i.e., Norway, England and The Netherlands), have indicated that only an estimated 2.5% finds its way to youth mental health care (YMHC) (Boon et al., 2010; Meltzer et al., 2000; Sytma et al., 2006; Zachrisson et al., 2006). This indicates an overall underutilization of YMHC. Studies in the United States have shown that ethnic minority youths (i.e., African Americans and Hispanic Americans) are less likely to receive mental health care than Caucasian Americans (V. C. Copeland, 2006; Garland et al., 2005), even when they face similar emotional problems (Kodjo & Auinger, 2004). This indicates that the rate of underutilization of YMHC is higher for ethnic minority youth than it is for ethnic majority youth. It is not clear however, whether this accounts for ethnic minority groups in western Europe and whether various ethnic minority groups are equally underrepresented. Therefore, it is relevant to investigate YMHC utilization for various ethnic groups in countries in western Europe, for instance in the Netherlands. The goal of our study is to gain knowledge on the extent of YMHC use among different ethnic groups in The Netherlands and to find explanations for potential differences in utilization. We analyzed the ethnic composition of YMHC patients in a large city in the Netherlands (The Hague) that provides both regular and specialized intercultural care. The following research question was formulated. Are ethnic minority children and adolescents represented differently in YMHC compared to native Dutch children and adolescents?

Method

Population

The information on all youths (age 5-19 years) from the general population and their ethnic backgrounds was drawn from municipality files. In 2009 a total of 126717 youths (5-19 years) lived in The Hague and surrounding areas. All of the 126717 youths were included in our study. Ethnic background was specified as follows: if the country of birth of both parents was the Netherlands (independently of the country of birth of the child), the child was seen as Dutch. If one or both parents were born abroad, the foreign country was taken as the country of origin. If both parents were born abroad but in different countries, the mother's birth country was taken

as the country of origin. The country of birth of the grandparents was not taken into account. A division was made into the largest minority groups (more than one percent of the total population of the area): Dutch, Surinamese, Turkish, Antillean, Moroccan, "Other African countries" and "Other non-native western" and "Other non-native non-western".

De Jutters, a YMHC centre, covers almost all YMHC of The Hague (one of the four major cities of The Netherlands) and its surroundings. All ambulatory settings (including a specific intercultural setting), and the (day-care) clinics were taken into account. In 2009 a total of 5033 patients (5-19 years) were treated at De Jutters. Information about patients ethnic backgrounds was drawn from the patient registration system used by De Jutters. At the beginning of treatment, all patients were asked if they allow that their personal identification data is used for research purposes. Patients' ethnic backgrounds were specified in similar ways to the ethnic background of the general population. The ethnic background of patients at De Jutters was known for 87,9% of the patients (n = 4424), resulting in a sample of 1940 children and 2484 adolescents. No differences in socio-demographic characteristics were found between participants and excluded patients (data available on request).

Statistical Analyses

Patient's ethnic backgrounds (using the patient registration system) were compared to the general population distribution of the same region. Relative risk ratios (likelihood) of YMHC utilization for ethnic minority groups were calculated with native Dutch youth YMHC utilization as the reference group. The YMHC utilization percentages of native Dutch youths were thus taken as the reference (RR=1) and the YMHC utilization percentages of the ethnic minority groups as the nominator. Age specific (5-10 years vs. 11-19 years) and gender specific (male vs. female) results will be presented.

Results

For female children, the YMHC utilization percentages varied from 0.8 for Moroccan girls (12/1571) to 3.2 for native Dutch girls (341/10783) (table 1), with an overall average of 2.6 (536/21000). As shown in table 1, Moroccan girls, Turkish girls and other non-native western girls all had a significantly smaller likelihood (RR < 1, $p < .00$) of using YMHC than native Dutch girls.

For male children, the YMHC utilization percentages varied from 3.6 for other non-native non-western boys (55/1529) to 8.4 for native Dutch boys (922/10998) (table 1). The overall average of 6.5% (1404/21742) was consistent with the estimated 7% prevalence rate (Rutter & Stevenson, 2008). But even with these higher utilization percentages, the relative risks for almost all ethnic minority boys to use YMHC compared to native Dutch boys (with the exception of the Antillean/Aruban group) were significantly lower ($RR < 1, p < .00$).

The treatment percentages for female adolescents varied from 2.3 for Moroccan adolescents (64/2729) to 3.8 for Surinamese adolescents (162/4247) (table 1), with an overall average of 3.1% (1284/41031). The relative risks in table 1 show that the likelihood for ethnic minority female adolescents to use YMHC was as high as the likelihood for native Dutch female adolescents to use YMHC, with the exception of the Moroccan females ($RR < 1, p = .02$). The likelihood for Surinamese female adolescents to use YMHC was significantly higher than for native Dutch female adolescents ($RR = 1.19, p = .04$)

The treatment percentages for male adolescents varied from 1.9 for other non-native western adolescents (86/4561) to 3.2 for other non-native non-western adolescents (94/2949) with an overall average of 2.8% (1200/42944). The relative risks for most ethnic minority male adolescents to use YMHC were similar to the risks for native Dutch male adolescents. The risks were significantly smaller ($RR < 1, p < .00$ and $p = .04$) for Turkish, Moroccan non-native western male adolescents though.

Table 1: Ethnic background of the YMHC patients compared to the general population of The Hague

| Ethnic background | Females | | | | Males | | | |
|----------------------------|------------------|--------------------|--------|---------------------------|------------------|--------------------|--------|---------------------------|
| | Patient s (N) | Populat ion (N) | RR | C.I. (95%) | Patient s (N) | Populat ion (N) | RR | C.I. (95%) |
| <i>children (5-10)</i> | | | | | | | | |
| Native Dutch | 341 | 10783 | 1 | - | 922 | 10998 | 1 | - |
| Surinamese | 44 | 1867 | 0.75 | 0.55 - 1.02 ($p = .06$) | 106 | 1950 | 0.65** | 0.53 - 0.79 ($p < .00$) |
| Turkish | 29 | 1726 | 0.53** | 0.36 - 0.77 ($p < .00$) | 81 | 1795 | 0.54** | 0.43 - 0.67 ($p < .00$) |
| Moroccan | 12 | 1571 | 0.24** | 0.14 - 0.43 ($p < .00$) | 67 | 1677 | 0.48** | 0.37 - 0.61 ($p < .00$) |
| Antillean and Aruban | 11 | 480 | 0.72 | 0.40 - 1.31 ($p = .29$) | 40 | 544 | 0.88 | 0.65 - 1.19 ($p = .40$) |
| Other African | 18 | 871 | 0.65 | 0.41 - 1.04 ($p = .08$) | 41 | 972 | 0.50** | 0.37 - 0.68 ($p < .00$) |
| Other western | 41 | 2181 | 0.60** | 0.43 - 0.82 ($p < .00$) | 92 | 2277 | 0.48** | 0.39 - 0.59 ($p < .00$) |
| Other non-western | 40 | 1521 | 0.83 | 0.60 - 1.15 ($p = .26$) | 55 | 1529 | 0.43** | 0.33 - 0.56 ($p < .00$) |
| Total | 536 | 21000 | | | 1404 | 21742 | | |
| <i>adolescents (11-19)</i> | | | | | | | | |
| Native Dutch | 677 | 21161 | 1 | - | 682 | 22085 | 1 | - |
| Surinamese | 162 | 4247 | 1.19* | 1.01 - 1.41 ($p = .04$) | 114 | 4322 | 0.85 | 0.70 - 1.04 ($p = .11$) |
| Turkish | 84 | 3195 | 0.82 | 0.66 - 1.03 ($p = .09$) | 89 | 3619 | 0.80* | 0.64 - 0.99 ($p = .04$) |
| Moroccan | 64 | 2729 | 0.73* | 0.57 - 0.94 ($p = .02$) | 57 | 2743 | 0.67** | 0.52 - 0.89 ($p < .00$) |
| Antillean and Aruban | 42 | 1224 | 1.07 | 0.79 - 1.46 ($p = .65$) | 37 | 1272 | 0.94 | 0.68 - 1.31 ($p = .72$) |
| Other African | 48 | 1435 | 1.05 | 0.78 - 1.39 ($p = .76$) | 41 | 1393 | 0.95 | 0.70 - 1.30 ($p = .76$) |
| Other western | 127 | 4323 | 0.92 | 0.76 - 1.11 ($p = .37$) | 86 | 4561 | 0.61** | 0.49 - 0.76 ($p < .00$) |
| Other non-western | 80 | 2717 | 0.92 | 0.73 - 1.16 ($p = .48$) | 94 | 2949 | 1.03 | 0.83 - 1.28 ($p = .77$) |
| Total | 1284 | 41031 | | | 1200 | 42944 | | |

* = significant on a 95% level; ** = significant on a 99% level

Conclusion and discussion

The present study intended to gain insight in the differences between ethnic groups on utilization of YMHC. The main conclusion from this study is that the use of YMHC services was unequally distributed over the different ethnic, gender and age groups amongst children but not amongst adolescents.

During childhood, most ethnic minority girls and boys are less likely to use YMHC than native Dutch boys and girls, despite the inclusion of the intercultural specific ambulatory treatment setting. Similarly, both male and female adolescents were underrepresented in YMHC but there were no differences between ethnic groups. These results indicate that in general, all children (except for native Dutch boys for whom the utilization percentages are about equal to the prevalence rate of psychiatric disorders) and adolescents are being poorly reached by YMHC. The trajectory towards YMHC should be studied in more detail in order to reveal the causes of this underutilization. It has to become clear how psychiatric problems are perceived by the general population, what the differences are on pathways to mental health services, and which perceptions about YMHC are present. Potential mediators such as socioeconomic status, discrimination, acculturation processes, and language issues should be taken into account. Next, the persons or organizations/facilities where help is being sought (primary care workers, community services) should be the focus of future study. Professionals may be biased and judge on behavioural and psychological cues differently, depending on the ethnic background of the patient or the professional, and cultural values and education (i.e., they might have culturally patterned perceptions of problem behaviour versus normal behaviour).

A limitation of the present study is that the study was based on the data of only one institution in one large city in The Netherlands. Therefore we recommend that the study be replicated in other metropolitan settings. Only then can we learn to what extent specific Dutch factors (or even special features of the population of The Hague) may have influenced the results. Finally, characteristics of the Dutch health care system may limit generalizability of the results found in this study.

CHAPTER 3

Ethnic minority status as a barrier to youth mental health care

Submitted for publication

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Abstract

Objective Although their prevalence of mental disorders is at least as high as among ethnic majority youth, ethnic minorities are highly underrepresented in Youth Mental Health Care (YMHC). The purpose of the present study is to examine whether socioeconomic or ethnic factors are related to the underutilization of these services.

Method YMHC patients (age 0-19) living in a large city in the Netherlands were categorized per district they lived in. The number of patients and their ethnic background were compared to the ethnic composition and average spendable year income of their district. Odd Ratio's (chance of receiving YMHC treatment) for ethnic minority youths in comparison to their majority peers were calculated for the city as a whole and for black, mixed and white districts.

Results Large differences were found between districts in the percentage of YMHC patients. The percentage of youths in treatment was not related to the average spendable year income of the districts, but was however closely related to the ethnic composition of the districts. It was found that the higher the percentage of ethnic minority inhabitants was, the lower the percentage of youngsters in YMHC treatment.

Conclusions The underrepresentation of immigrant youths in YMHC is related to the ethnic composition of the district they live in. Presumably, ethnic minorities in districts with a low percentage of majority inhabitants have less knowledge about mental health problems and the treatment possibilities. Strategies to make YMHC more accessible for ethnic minorities should focus on the cultural barriers between the services and their potential patients.

Keywords: youth mental health care; underutilization; socioeconomic status; ethnic origin.

Introduction

Due to psychiatric problems an estimated seven percent of the children and adolescents in western societies is limited in its functioning to such a degree that psychiatric treatment is recommended (Friedman, Katz-Levey, Manderschied, & Sondheimer, 1996; Roberts, Attkisson, & Rosenblatt, 1998). However, only about one-third of the young population that needs treatment finds its way to youth mental health care (YMHC) (Boon et al., 2010; Fombonne, 2002; Meltzer et al., 2000; Sayal, 2006; Sytema et al., 2006). Compared to majority youth, ethnic minority youth make even less use of mental health services (Angold et al., 2002; Elster, Jarosik, VanGeest, & Fleming, 2003; Garland et al., 2005; Gudino, Lau, Yeh, McCabe, & Hough, 2009), while research indicates that the rates and patterns of mental disorders are quite similar across ethnic groups and that the prevalence of psychiatric problems in children and adolescents from minority groups is at least as high as that of their peers from the majority population (Fombonne, 2002; Janssen et al., 2004; Luk, Leung, & Ho, 2002; Murad, Joung, van Lenthe, Bengi-Arslan, & Crijnen, 2003; Nikapota & Rutter, 2008; Reijneveld et al., 2005; Vollebergh et al., 2005; Zwirs et al., 2007). Because there is no apparent difference in prevalence rates of psychiatric disorders between ethnic groups, the explanation for the higher underutilization of YMHC of minority youths must be sought in other factors like socioeconomic status or cultural differences.

Both ethnic background and socioeconomic status (SES) are seen as important variables in relation to ethnic differences in mental health care utilization (Angold et al., 2002; Garland et al., 2005; Sayal, 2006). These variables are often correlated however (i.e., ethnic minorities often have a lower SES than majorities) (CBS, 2009; Chen et al., 2006; Zahner & Daskalakis, 1997), and therefore it is difficult to discern which variable is the most important contributor. Thus far, several surveys in The Netherlands, Great Britain and the United States indicated that a higher level of education or income (both indications for a high SES) is associated with a higher use of mental health care (Paasche-Orlow, Parker, Gazmararian, Nielsen-Bohman, & Rudd, 2005; Pumariaga, Glover, Holzer, & Nguyen, 1998; Ten Have, Oldehinkel, Vollebergh, & Ormel, 2003). Other studies found a link between mental health care utilization and ethnic background, i.e., youths and adults with a ethnic minority background less often used mental health care services than youths and adults of a majority background (Bhui et al., 2003; Dieperink, Van Dijk, & De Vries, 2007; Dieperink, Van Dijk, & Wierdsma, 2002; K. Wells, Klap, Koike, & Sherbourne, 2001). Garland and colleagues (2005) analyzed the ethnic disparities in use of YMHC while

controlling for socioeconomic position, and found that the ethnic disparities in the utilization of youth mental health services still remained. To our knowledge only the study of Garland and colleagues (2005), investigated both ethnic background and SES of the patients and its (interfering) associations with mental health service use. Although this is an important study, it focused on the situation of the United States where the insurance status of the patients always interferes with the SES and the possibility to receive (mental) health care. Indeed, Sayal (2006) suggests that the finding that Caucasian ethnicity is positively related with mental health care use, might be caused by their health insurance status, while other ethnic groups (e.g., African Americans or Hispanic Americans) less often have health insurance. In contrast, in most European countries the whole population has health insurance. This offers the opportunity to investigate the effect of SES without the insurance status as a confounding factor. More information about the association between ethnic background, SES and mental health service use in European countries, can give direction on how mental health services in countries where these services are covered by health insurance can deal the problem of underutilization by minority groups.

Because untreated youth psychiatric disorders can cause serious damage later in life (Domburgh, 2009; Gosden et al., 2003; Sytema et al., 2006), it is of utmost urgency to gain knowledge on the causes of underutilization of YMHC services. Based on the previous research cited above, two contradicting hypotheses can be formulated: (1) the socioeconomic hypothesis: people (from all ethnic groups) with a lower SES make less use of mental health facilities. As minorities are more likely to have a lower SES, poverty would explain their underrepresentation. This would implicate that the use of mental health care is primarily reserved to the socioeconomic top stratum population. And (2) the ethnic hypothesis: there is a direct link between ethnic origin and the use of mental health care. This would implicate that the use of mental health care is primarily reserved for the majority population and the thresholds to YMHC are associated with ethnic or cultural differences. The aim of the present study is to give more clarity about how these factors (socioeconomic background or ethnic origin) are related to the percentage of children and adolescents treated for psychiatric problems.

Method

The YMHC patients

In 2008 De Jutters, a youth mental health care institution, was a near monopolist in the field of youth mental health care in The Hague (one of the four main cities in The Netherlands). The city is divided into 44 districts. The patients (0-19) that lived in The Hague were selected from the files of De Jutters (2008), and were categorized per district they lived in, based on their postal code. This resulted in a data file with the exact number of children and adolescents in treatment per district and their ethnic background (see below for specification).

Because only general information about ethnic background was used, it was not mandatory to obtain written informed consent from patients or parents. This was in accordance with the statutory requirements in the Netherlands.

The general population per district

The following data per district were retrieved from municipality files: number of inhabitants born after 1988 (i.e. 0-19 years), the ethnic background of the inhabitants (total and those of 0-19 years), and the district's average spendable year income ("Den Haag in Cijfers," 2008). The present study uses data on the average spendable annual income per district as an indicator for the SES. The percentage of total native Dutch inhabitants per district was used as an indicator of the ethnic composition of that district. The districts were divided in three groups based on the percentage of native Dutch inhabitants: 'White districts' (>75% native Dutch inhabitants), 'Mixed districts' (50-75% native Dutch inhabitants), and 'Black districts' (<50% native Dutch inhabitants).

Ethnic background

Most ethnic minorities in the Netherlands originate from Morocco, Turkey, Surname and the Dutch Antilles. The Moroccans and Turks are mainly descendants from labour migrants that entered the Netherlands in the 1960s and 1970s (Bocker, 2000; Nelissen & Buijs, 2000). Most Surinamese have come to the Netherlands from the early seventies during the process of decolonisation (Van Niekerk, 2000). The Dutch Antilles consists of six islands in the Caribbean, which were or still are part of the Netherlands. After the 1960s the group that came from these islands consisted primarily of labour migrants, before it were mainly children of white colonists who came to the Netherlands to study at universities (Van Hulst, 2000). Besides these four main

ethnic minority groups, many other groups are residing in the Netherlands nowadays. These inhabitants come from other African countries, the Middle East, Asia, Latin America, Eastern Europe, who migrated due to the processes of decolonisation, refugee movements following armed conflicts, political violence, humanitarian emergencies, human right violations, and other reasons.

In contrast to the United States, race is not registered in The Netherlands. Therefore in both samples (patients and general population) the ethnic background was specified as follows: if both parents of the patient/inhabitant were born in The Netherlands (regardless of his or her own country of birth), the person was seen as native Dutch. If one or both of the parents were born abroad, the person was seen as an ethnic minority/immigrant. Depending on the specific birth country, the person was seen as a western or non-western immigrant. If both parents were born in different foreign countries, the country of birth of the mother was taken as the determining country. Western immigrants were originally from European countries (except for Turkey), Northern America, Oceania, Indonesia and Japan. Non-western immigrants were from the remaining foreign countries. Both the patients and the general sample were divided in three ethnic groups, i.e., native Dutch, western immigrants, and non-western immigrants.

Statistical analyses

All analyses were performed using the Statistical Package for the Social Sciences, version 20.0 (SPSS, 2012). For each district the percentage of the population under age 20 that received YMHC treatment was calculated (i.e. the 'treatment percentage'). Pearson correlations between the percentages of youths in treatment and the average spendable year income per district (indicating SES) were calculated, as well as those between the percentages of youths in treatment and the total percentage of native Dutch inhabitants per district (indicating the ethnic composition). A stepwise regression analysis with the district variables (average year income, percentage of native Dutch inhabitants, western immigrant inhabitants, and non-western immigrant inhabitants) as independent variables, and the percentage of youngsters in treatment as the dependent variable was conducted. Scatter plots were generated to gain more insight in the association between YMHC consumption and the ethnic composition of the districts, and between YMHC consumption and the average income level of the districts. Also, Odd Ratios (chance at receiving treatment) for immigrant youths in comparison to their native Dutch peers were calculated for the city as a whole and for the White, Mixed and Black districts.

Results

In the year 2008 the city of The Hague counted 109818 inhabitants under age 20 ("Den Haag in Cijfers," 2008). The number of youths receiving psychiatric care in this age group was 2667, this indicates that 2.4% of the city's youth was treated at De Jutters. There were large differences in the treatment percentages between districts, varying from 1.5% to 4.2 percent. The number of youngsters (0-19 years) per district varied from 1 to 11254, with an average of 2496 youths per district. In order to make reliable comparisons between the districts on the percentages of youngsters in treatment per district, the sparsely populated districts were left out of the analyses.

Figure 1. District percentages of youths in YMHC treatment compared to the district percentage of native Dutch inhabitants

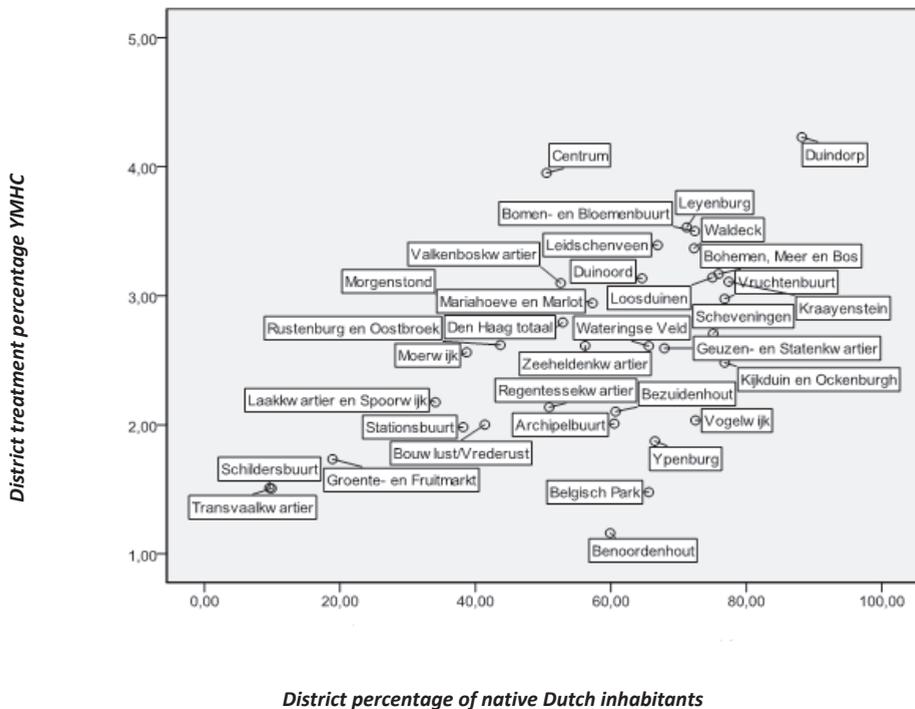
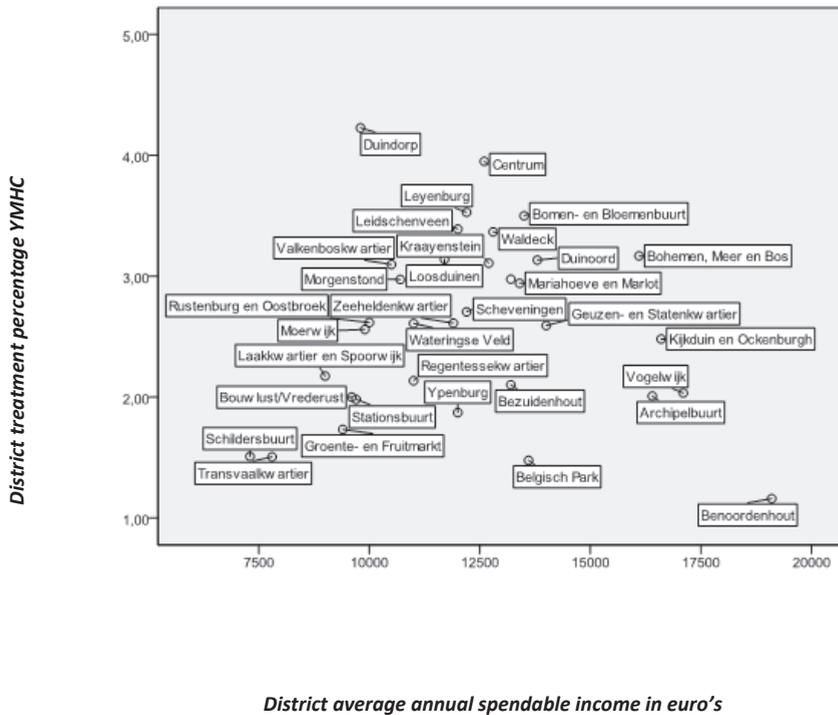


Figure 2. District percentages of youths in YMHC treatment compared to the district's spendable year income level



Therefore, a reliability threshold was determined, wherein the districts were considered as samples of the total population of the city. With a reliability level of 95% and a error level of 5%, a number of at least 383 youngsters living in a district was needed to obtain reliable results. Districts (mainly park, office or industrial areas) with less than 383 inhabitants under age 20 were left out of the analyses. The population of these districts were mainly of native Dutch origin (69.5%) and from Western countries (17.2%). After this selection, 34 districts with a total of 108979 inhabitants under age 20 remained (99.2% of the young population of The Hague). The minimum number of youths per district was 404.

The correlation analysis showed a significant relationship between the districts' percentage of youth in treatment and the percentage of native Dutch inhabitants in the districts ($r = .550, p = .001$), while no relationship was found between the district's percentage of youth in treatment and the average spendable year income level of the districts ($r = -.008, p = ns$). The

ethnic composition of the district (Figure 1) appeared to be of greater influence on the treatment percentages than the average income level (Figure 2). The correlation between the ethnic composition (percentage of native Dutch inhabitants) and the average spendable year income level was high ($r = .63, p = .000$).

The ethnic background variables of the district population (percentage of native Dutch, western immigrants, and non-western immigrants), and income level were entered as independent variables in a regression analysis (stepwise) with the district's treatment percentages as the dependent variable. The best solution (adjusted $R^2 = 0.469$) was found when the specific ethnic background variables (percentage of western and non-western immigrants) were excluded. The final solution contained only two predictors: percentage of native Dutch in the district ($t = 5.583, p = .000$) and the districts' average income level ($t = -3.491, p = .001$). The percentage of native Dutch inhabitants in a district, and not the differentiation between western and non-western descent within the immigrant group, appeared to be the most important predictor for the percentage of the district's youth that received treatment in YMHC.

Figure 2 shows that the highest treatment percentages were found in the middle income districts. Other studies also found a 'curvilinear' relationship with greatest YMHC use in middle socio-economic status groups (Sayal, 2006). For our study no data from non-institutional therapists, who according to their professional profile (also) offered treatment to children and adolescents, were available. The majority (25 of 29) of these therapists was located in the five districts with the highest average spendable annual income. In these five districts the percentage of youth in treatment is low (1.5%), maybe because the inhabitants of these districts are more likely to use non-institutional psychotherapists. Therefore we repeated our analysis after the five richest districts (year income > €16000) were excluded. After this elimination, 29 districts remained with 103756 inhabitants under age 20 (94.5% of the total young population of the city). The correlation between the district's treatment percentages and the district's percentage of native Dutch inhabitants became slightly higher ($r = .593, p = .000$) than it was when the highest income districts were included. The correlation between the districts' treatment percentages and the income level per district remained non-significant ($r = .006, p = ns$). In the (stepwise) regression analysis for this selection of districts, only the percentage of native Dutch inhabitants per district remained as a predictor for the districts' treatment percentages (adjusted $R^2 = 0.413, t = 4.553, p = .000$).

A closer look at the ten districts with the lowest average spendable annual income (< €10.000) made clear that there are large differences in the treatment percentages in these poorest districts. The district with the highest treatment percentage (4.2%), and a population that consisted almost exclusively of native Dutch inhabitants (88.2%), as well as the two districts with the lowest treatment percentages (1.5%), and a population that consisted almost completely of immigrants (90.1% and 90.4%), belong to the ten poorest districts. The district with a mixed population (38.7% native Dutch inhabitants) was positioned between these extremes with a treatment percentage of 2.6.

The analyses so far concentrated on the percentages of youths in treatment, regardless the ethnic background of these patients. The results presented above cannot rule out the possibility that all patients from the districts with a majority of native Dutch inhabitants, are minority youths. To check for this phenomenon (i.e., 'ecological fallacy'), the city was divided in three categories based on the number of native Dutch inhabitants. 'White districts', 'Mixed districts' and 'Black districts'. For these three categories the treatment percentages and the Odds Ratios for treatment of the immigrant youths compared to their native Dutch peers were calculated (Table 1). The treatment percentage of native Dutch patients in the 'Black districts' was about the same as that in the 'White districts' (respectively 3.6% and 3.5%). However, the treatment percentage of immigrant youths in 'Black districts' was much lower than the immigrants' treatment percentage in 'White districts' (respectively 1.4% and 2.6%). In addition, in the 'Black districts', the chance for immigrant youths at YMHC treatment was much lower (Table 2) compared to their native Dutch peers living in the same districts (OR = 0.38), and is lowest for the non-western immigrants (OR = 0.36). In the other categories ('Mixed districts' and 'White districts'), the chances for non-western immigrant youths at treatment in YMHC is about half of that of their native Dutch peers (OR = 0.51 and OR = 0.58). A remarkable finding is that the percentage of immigrant patients from western origin in the 'White districts' is much higher than that of the native Dutch (respectively 4.7% and 3.5%).

Table 1: Percentages of youths in treatment in The Hague (age 0-19)

| | Total % | Dutch natives % | Ethnic minorities | | |
|------------------------------|---------|-----------------|-------------------|---------------|---------|
| | | | Western % | Non-Western % | Total % |
| White districts ¹ | 2.6 | 3.5 | 4.7 | 1.8 | 2.6 |
| Mixed districts ² | 2.3 | 2.6 | 1.8 | 1.5 | 1.6 |
| Black districts ³ | 1.8 | 3.6 | 2.5 | 1.3 | 1.4 |

¹(>75% Dutch natives), ²(50-75% Dutch natives), ³(<50% Dutch natives).

Table 2: Chance at YMHC treatment of ethnic minority youth (age 0-19) in the Hague compared to native Dutch youths

| | Odds Ratios (OR) | | |
|-----------------|------------------|-------------|-------|
| | Western | Non-Western | Total |
| White districts | 1.34 | 0.51 | 0.74 |
| Mixed districts | 0.69 | 0.58 | 0.62 |
| Black districts | 0.69 | 0.36 | 0.38 |

1 (>75% Dutch natives), 2(50-75% Dutch natives), 3(<50% Dutch natives).

Discussion

Although research indicates that the prevalence rates of psychiatric disorders are about as high or even higher for ethnic minority youth compared to ethnic majority youth, ethnic minority youths are underrepresented in youth mental health care (YMHC). Because untreated youth psychiatric disorders can cause serious damage later in life, our research intended to extend the knowledge on possible causes of this underutilization by specifically focusing on the (interfering) effects of the socioeconomic status (SES) and the ethnic background of potential patients.

Two hypotheses were tested: 1) the socioeconomic hypothesis: people (from all ethnic groups) with a lower SES underutilize mental health facilities. As ethnic minorities are more likely to have a lower SES, this would explain their under-representation, and 2) the ethnic hypothesis: there is an association between ethnic origin and the use of mental health care. The district's average year income was used as an indicator for SES, and the district's percentage of native Dutch inhabitants was used as an indicator of the ethnic composition of that district. A high correlation between treatment percentages and the districts' average income level can be seen as support for the first hypothesis, and a high correlation between treatment percentages and the districts' percentage of native Dutch inhabitants can be seen as support for the second.

The results of present study indicated that the percentage of children and adolescents in treatment was strongly associated with the ethnic composition of the district, and that the district's income level had almost no effect. This implicates that ethnic (or cultural) aspects are more relevant obstacles on the pathway to mental health treatment than socioeconomic aspects. The districts where the proportion of YMHC patients was low, were mostly districts with a high percentage of immigrant inhabitants. Of course, because no information about the SES of the patients was available, the possibility remains that on a individual level socioeconomic factors do play a role. For instance, within districts with a low average year income, minority youth with a higher SES might enter care more frequently than minority youth with a lower SES.

The comparison between 'White', 'Mixed' and 'Black' districts showed that the treatment percentage of native Dutch youths living in 'Black districts' was about equal to the treatment percentage of those living in 'White districts'. The treatment percentage of non-western immigrant youths living in the 'Black districts' however, was much lower than the treatment percentage of non-western youths living in 'Mixed' and 'White' districts. Compared to the native Dutch inhabitants of the 'Black districts', the chance for non-western immigrant youths in same districts to be treated in YMHC was one-third (OR: 0.36).

Several explanations can be given for the finding that minority children are treated less often in YMHC than majority children. For instance, language problems between the parents and the professionals might heighten the threshold to care. But at the time our data were collected, interpreters were financed by the Dutch government and it is therefore unlikely that language problems play a major role. Another explanation can be the proximity of YMHC centres for people in the 'Black' districts. It is possible that the native Dutch population in these districts have a higher individual SES than the immigrant population and that they can thus afford to pay for transportation, while the immigrant population cannot afford this. It might also be that ethnic minorities seek non-institutionalized help with traditional or alternative healers (Bhui & Bhugra, 2002). One of the reasons for seeking help here (instead of within YMHC) can be that ethnic minorities have negative beliefs about psychiatric disorders and YMHC and are afraid of stigma (De Jong & Colijn, 2010).

A possible explanation for the results can be found in the concept of 'proto-professionalization' which describes the degree to which individuals have the capacity to obtain, process, and understand basic health information, recognize the mental health problem, and

have knowledge about the services needed to make appropriate health decisions (De Swaan, 1979). A lack of proto-professionalization among potential patients and their parents can hinder the access to accurate mental health care. During the past fifty years the ethnic majority population in western countries has been proto-professionalized regarding mental health problems, which can be seen as one of the factors responsible for the huge increase of their mental health care utilization (Nicolai, 1996; Stapel & Keukens, 2009). Proto-professionalization also implies that cultural or religious beliefs about mental illness are replaced by notions from western mental health care. Some groups (i.e. ethnic minorities, people with a low socioeconomic status) might be less proto-professionalized than the rest of the population. Because the percentage of native Dutch children and adolescents that are treated in YMHC is about the same in 'Black', 'Mixed' and 'White' districts, it can be assumed that the process of proto-professionalization influences the native Dutch population regardless of their surroundings. For ethnic minorities however, it might be that the level of proto-professionalization is related to the ethnic composition of the district they live in, i.e., this process is more common among immigrants living in 'White' districts than among the ones living in 'Black' districts. More knowledge and insight in the level of proto-professionalization of ethnic minority inhabitants of 'Black' districts is needed to warrant such conclusions. Health care professionals should gain insight in the way these inhabitants interpret problematic behaviour and the reasons for them to decide that professional help is (not) needed. For one aspect of proto-professionalization, i.e., the problem identification, it was shown that this was an important factor contributing to the mental health help-seeking process. Indeed, with ethnic minority parents and adolescents problem identification was significantly lower than with native Dutch parents and adolescents (Verhulp, Stevens, Van de Schoot, & Vollebergh, 2013).

In order to be able to supply equal mental health care to all ethnic groups, the YMHC institutions have to employ strategies to reach immigrant children and their parents, especially in the 'Black' districts. For instance, locate services in these districts' general health centres. YMHC institutions should also gain more insight in the possible ethnic biases in the trajectory that leads to referral for treatment in YMHC. Those biases can occur when psychiatric problems are discarded because of the cultural distance between a referral professional and the patient (Garb, 2005; Torres, Zayas, Cabassa, & Perez, 2007; Zayas et al., 2005). Indeed, professionals (in the referral process) are likely to judge differently on behavioural and psychological cues dependant on the ethnic background of the patient, the ethnic background of the professional,

cultural values and education of the professional, as well as the culture of the institution itself (Torres et al., 2007; Zayas et al., 2005). This would indicate that immigrant children and adolescents with psychiatric disorders are less likely to be referred to YMHC and that they are treated elsewhere or not treated at all. In addition, immigrant parents might be less willing or capable to share information on the development during the child years than native Dutch parents (Pels & Nijsten, 2003). Sharing this information of the early years is important, because it is hard to make correct diagnoses without it. Indeed, Sayal (2006) and Kelleher et al. (1999) stated that the recognition of problems in children and the subsequent referral to YMHC depends amongst others on disclosure of problems by parents/children. But even when parents disclose problems the health professional will not always recognize these problems and will thus not refer the child to YMHC (Sayal, 2006). Also YMHC services should reflect on what they can do to welcome minority youth and find ways to meet their needs. For instance by employing ethnic minority professionals or by setting up special facilities for intercultural mental health (Boon, De Haan, De Boer, & Isitman, 2012).

A limitation of this research is that it was based on the data of one institution in one city in The Netherlands. Therefore we recommend that the study should be replicated in other metropolitan surroundings. Only then can we learn to what extent specific Dutch factors (or even specific features of the population of The Hague) influenced the results. Another limitation is that we used the average income of the district as an indicator for SES and we did not have information on the individual SES levels of the patients. We could thus not provide rates of children with a lower or higher SES in care, and we can therefore not conclude that socioeconomic factors do not play a role at all in the utilization of YMHC facilities. We advocate that in future research the individual SES variables are used in similar research. But even without additional research, youth mental health care professionals can reflect on measures that make their institutions more accessible for the inhabitants of the districts with a lower percentage of patients. When these actions are combined with an adequate registration of ethnic and socioeconomic background of patients, the effect of the new strategies can be analyzed.

CHAPTER 4

Ethnic differences in DSM– classifications in youth mental health care practice

International Journal of Culture and Mental Health, 2014, 7(3): 284-296

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Abstract

In community Youth Mental Health Care (YMHC) patients are mostly diagnosed according to the clinical judgment of professionals. Because validated instruments are hardly used, this process may be influenced by other factors than the diagnostic criteria, such as the ethnic background of the patient. The goal of our study was to assess differences between ethnic groups in the received clinical diagnoses. The sample consisted of children (n = 1940) and adolescents (n = 2484) admitted to a Dutch YMHC center. Ethnic background was specified based on the country of birth of the parents. Odds ratios on clinical diagnoses for ethnic minority patients were calculated with the native patients as reference. The results showed that native patients more often received specific psychiatric disorders and co-morbid diagnoses on axis I, while ethnic minority children more often received V-codes only, indicating that there was insufficient information to determine a psychiatric disorder. We therefore assume that it is harder to recognise psychiatric disorders when ethnic minority patients are diagnosed. This could imply that immigrant children and adolescents are not adequately treated for their disorders in YMHC. We recommend that YMHC professionals should reflect on the potential biasing effect of the patient's ethnic background in diagnostic procedures.

Keywords: ethnic minorities; youth mental health care; DSM-classifications; psychiatric diagnoses.

Introduction

In community youth mental health settings, diagnoses are usually made through unstructured interviews, in which clinicians gather diagnostic information from clients and/or family members (Anderson & Paulosky, 2004; Jensen-Doss & Weisz, 2008). Indeed, several surveys indicate that the unstructured clinical interview is the assessment method used most often by clinicians in the practice of Youth Mental Health Care (YMHC), and reliable and validated instruments are rarely used (Cashel, 2002; Zayas et al., 2005). Some studies suggest that because of this practice clinicians are susceptible to several information-gathering biases that will influence the diagnostic process, such as seeking information to confirm the diagnosis while ignoring conflicting information, and making decisions based on assumptions about gender, ethnicity or age (Garb, 2005; Torres et al., 2007; Zayas et al., 2005). In addition, if clinicians are under time pressure because they have to see many patients, as is often the case in clinical practice, ethnic stereotypes are more likely to influence their decisions (Burgess, Fu, & Van Ryn, 2004; Muroff, 2005).

It is widely assumed that migration and migration related processes affect the mental health of both children and adults (Barrett, Turner, & Sonderegger, 2000; Guarnaccia & Lopez, 1998). For instance, the migration process causes stress because it entails loss of family and surrounding, and migrants have to adapt to a new cultural environment. Children who did not migrate themselves may suffer indirectly, because they receive inadequate support from their parents who are preoccupied with their own migration stress (Hicks, Lalonde, & Pepler, 1993). Also, migrant populations often have a minority position in their host country and a weak social position which may adversely affect mental health (Garcia Coll et al., 1996). On the other hand, researchers have suggested that migrant youth may be at a decreased risk of mental health because there often is a coherent and supportive family culture within migrant families which protects them against the development of mental health problems (Harker, 2001). Indeed, a review on the prevalence of mental health disorders in migrant children showed that there was no unequivocal confirmation that migrant youth were at a higher risk of mental health problems than native Dutch youth (G. W. J. M. Stevens & Vollebergh, 2008). However, there is no clear evidence that migrant youth have a lower risk of mental health problems either. Therefore it is concluded that the prevalence of psychiatric disorders is at least as high among ethnic minority youth as among ethnic majority youth.

Several studies show that psychiatric disorders are under-diagnosed with ethnic minority youth. A substantial part of this under-diagnosing can be attributed to the influence of ethnic stereotyping when professionals have to judge children from ethnic minority groups (Begeer et al., 2009; Kreps, 2006; Martin, 1993; Reijneveld et al., 2005; Van Ryn & Fu, 2003; Zwirs et al., 2006a). Indeed, a number of studies have shown that observers assign different meanings to the same behaviour depending on the race, class, or other demographic characteristics of the individual involved (Snowden, 2004; Van Ryn & Fu, 2003). For instance, in one study with a group of children that scored within the clinical range of an emotional and behavioural problem self-rating questionnaire, mental health care professionals recognized psychiatric problems among 9,4% of the ethnic minority children and among 21,4% of the native Dutch children (Reijneveld et al., 2005). Also, paediatricians more often referred to autism when judging clinical vignettes of European majority cases (Dutch) compared to vignettes including non-European minority cases (Moroccan or Turkish) (Begeer et al., 2009). The researchers concluded that the use of structured instruments, instead of giving diagnoses according to clinical judgment, may decrease the likelihood of ethnic bias in diagnostic decisions of autism. Likewise, in another study one group of psychotherapists was presented with a scenario involving a White adolescent, and a second group of psychotherapists was presented with a scenario involving a Black adolescent. Overall, the behaviours of the Black adolescent were rated as less clinically significant as the behaviours of the White adolescent (Martin, 1993). Also, it was shown that for more than two decades, African Americans had higher than expected rates of diagnosed schizophrenia and lower rates of diagnosed affective disorders, which might be attributed to clinicians being ethnically biased in routine practice and African Americans presenting their symptoms to clinicians in a different way than White Americans (Baker & Bell, 1999; Trierweiler et al., 2000). Several other studies have indicated that diagnoses generated through the use of (cross-culturally) validated diagnostic instruments, conducted in accordance with standard rules for information gathering, are more valid than are clinician-generated diagnoses (Aklin & Turner, 2006; Basco et al., 2000). In addition, diagnostic accuracy (an agreement between diagnoses generated by the clinician or by validated instruments) predicted better therapy engagement, and a decreased likelihood of therapy dropout (Jensen-Doss & Weisz, 2008).

As a consequence of potential misdiagnoses, ethnic minority youth might not receive the right treatment for their disorders, affecting the outcome of treatment. (Jensen-Doss & Weisz, 2008). Children with untreated disorders are likely to grow up as adults who may have to rely on

mental health services and this has negative consequences for the individuals, their surroundings and society (Belfer, 2008; Dulmus & Wodarski, 1996; Kazdin, Mazurick, & Siegel, 1994; Kazdin & Wassell, 1998; Reis & Brown, 1999). Compared to children who do receive treatment, children with untreated behavioural problems are more likely to leave school without a qualification, to engage in delinquent activities, to abuse drugs and alcohol, and to become unemployed (Lochman & Salekin, 2003; Moffitt et al., 2002). It is therefore important that the disorder is correctly recognized in order to increase a successful outcome of treatment.

To our knowledge, thus far no studies have focused on the impact of the ethnic background of youth mental health care patients on the diagnoses they receive. Our goal was therefore to assess differences between ethnic groups in received diagnoses (i.e., DSM classifications) by professionals in a YMHC practice where patients are diagnosed according to the clinical judgment of the professional and allocated to the categories of the Diagnostic and Statistical Manual of Mental Disorders IV-TR (APA, 2000). Specifically, our goal was to focus on whether the patients received V-codes only. V-codes in the DSM-IV-TR indicate other conditions than a psychiatric disorder that may be a focus of clinical attention (APA, 2000). V-codes should only be used as the main diagnoses when insufficient information is available to know whether or not a presenting problem is attributable to a psychiatric disorder (APA, 2000). We were interested if this situation would occur more for ethnic minority than for majority youth, because the studies described above indicate that psychiatric disorders are less often recognized within ethnic minorities. The study was performed in a YMHC institution with no standard diagnostic procedure of (cross-culturally) validated instruments. Our main research question was whether there were ethnic differences in the assigned DSM classifications (i.e., only V-codes versus one or more psychiatric disorder(s)) by clinicians in YMHC practice? We hereby analyzed differences between native Dutch and ethnic minority groups (all patients with ethnic backgrounds other than Dutch were seen as ethnic minorities), and we analyzed differences between the various ethnic groups (all specific ethnic backgrounds were taken into account).

Design

Population

The study was conducted in a youth mental health care center (i.e., “De Jutters”) that covers almost all youth mental health care of The Hague (one of the three main cities of The

Netherlands) and its surroundings. Within this institution, patients aged 0-23 can be treated on ambulatory, clinical, or day-care basis. For this study, the ambulatory settings (including a specific intercultural setting), and the clinics and day-care clinics were taken into account. In 2009, a total of 5033 patients (5-19 years) were treated at “De Jutters”. All of the patients that were in care at “De Jutters” in 2009 were taken into account in our study, some of the patients were already in treatment several years by then and others just started treatment in 2009. The patients were all treated by highly skilled professionals: psychologists, psychotherapists, and psychiatrists. The ethnic background of the patients was drawn from the registration system of De Jutters. Upon arrival, the secretary of the particular department asked the parents (for patients up to 16 years) and the patients (from the age of 12) whether they gave permission for the regular demographic information to be used anonymously in scientific research. Patients and their parents were then asked to sign a consent form to indicate that their data could be used. Patients and their parents were informed that the goal of this research was to improve the quality of the services of the institution.

Following the guidelines of the Dutch government, ethnic background was specified as follows: if the country of birth of both parents was the Netherlands (regardless of the country of birth of the child), the child was seen as native Dutch. If one at least one parent was born abroad, the child was seen as an ethnic minority. A division in the largest minority groups (more than one percent of the total population of the area) was made. This resulted in the following seven ethnic minority groups: Surinamese, Turkish, Antillean, Moroccan, “Other African countries”, “Other non-native western” and “Other non-native non-western”. European countries (except Turkey), North-America, Oceania, Japan, Indonesia and the Asian part of the former USSR were considered as western countries. Turkey, Africa, Latin America and the rest of Asia were considered as non-western countries. The ethnic background for patients at De Jutters was known for 87,9% of the patients (n = 4424). Among these 4424 patients in our study, 1940 were children (5-10 years, 1404 male and 536 female) and 2484 were adolescents (11-19 years, 1200 male and 1284 female). All of these patients or their parents signed the formerly described consent form. The children whose ethnic background was not known and who did not participate in the study did not differ significantly on socio-demographic variables (data available on request).

Assessment and diagnoses

Before treatment began, psychiatric assessment was done by the treating psychologists, psychotherapists, or psychiatrists. Based on information by the patient, their parents and the referring institution, a descriptive diagnosis was made. Patients were classified according to the Diagnostic and Statistical Manual of Mental Disorders IV-TR (APA, 2000) and entered in the registration system of De Jutters. The DSM is organized into a five-part axis system, with the first axis incorporating clinical disorders and the second covering personality disorders and intellectual disabilities. The remaining axes cover related medical, psychosocial and environmental factors, as well as assessments of functioning for children. For the purposes of this study we concentrated on the psychiatric axes (axis I and II). A maximum of five different classifications on axis I were given. Because it is not recommended to diagnose personality disorders before adulthood, axis II classifications (personality disorders) were not given. Therefore, only the axis I disorders were involved in this study.

The axis I classifications were grouped in several categories. If only V-codes were given, the patient was grouped in the category 'Only V-codes'. 'Only V-codes' indicates that no classification of a psychiatric disorder was registered, but instead problems such as 'relational or communication problems between child and parent' or 'other social/environmental problems' were identified as the main reason to receive therapy. Patients that were diagnosed with one or more psychiatric disorders, were divided in the category 'One or more psychiatric disorders on Axis I'. Within this last category, a subcategory of patients with more than one psychiatric disorder (i.e., comorbid disorders) were identified, the category 'Comorbidity'.

Statistical Analyses

Odds ratios on psychiatric diagnoses made by clinicians for the ethnic minority group were calculated with native Dutch youth as the reference group. Also, odds ratios on psychiatric diagnoses made by clinicians for the seven ethnic minority groups were calculated with the Dutch group as the reference group. The analyses were performed for the different classifications grouped in the categories: 'Only V-codes', 'One or more psychiatric disorders on Axis I', and 'Comorbidity'. The analyses were done separately for children and adolescents, and for males and females.

Results

Children

For both boys and girls, the likelihood to be classified with only V-codes was significantly higher for ethnic minorities than for Dutch natives (ethnic minority boys: O.R. = 2.7, C.I. 95% = 1.84 - 4.09; ethnic minority girls: O.R. = 2.1, C.I. 95% = 1.26 - 3.54). The likelihood to be classified with an Axis I disorder (OR = 0.6, C.I. 95% = 0.42 - 0.76) or comorbid disorders (OR = 0.6, C.I. 95% = 0.39 - 0.79) was significantly lower for ethnic minority boys than for native Dutch boys. For ethnic minority girls the likelihood to be classified with a psychiatric disorder on Axis I was almost equal to native Dutch girls (OR = 0.8, C.I. 95% = 0.50 - 1.13), but for comorbid disorders the likelihood was significantly lower (OR = 0.4, C.I. 95% = 0.16 - 0.80).

Table 1 specifies these results for the different ethnic minority groups with the Dutch group as the reference group. Surinamese, Turkish and other non-western boys, had a significant higher likelihood to be classified with only V-codes compared to native Dutch boys. Also, the likelihood to be classified with a psychiatric disorder on Axis I was significantly lower for these Surinamese, Turkish and other non-western boys compared to native Dutch boys. In addition, Surinamese boys were significantly less likely to be classified with comorbid disorders compared to native Dutch boys.

Only Surinamese girls had a significant higher likelihood to be classified with only V-codes compared to native Dutch girls. The odds ratios for the likelihood for ethnic minority girls compared to native Dutch girls to be classified with a psychiatric disorder on Axis I or with comorbid disorders were not significant.

Adolescents

For male adolescents, the likelihood to be classified with only V-codes was significantly higher for ethnic minorities than for Dutch natives (O.R. = 2.3, C.I. 95% = 1.50 - 3.42). The likelihood to be classified with a psychiatric disorder on Axis I (OR = 0.8, C.I. 95% = 0.59 - 1.03) or comorbid disorders (OR = 0.7, C.I. 95% = 0.44 - 1.08) was almost equal or somewhat lower (not significant).

For female adolescents, the likelihood to be classified with only V-codes was significantly higher for ethnic minorities than for Dutch natives (O.R. = 1.7, C.I. 95% = 1.28 - 2.34). The likelihood to be classified with a psychiatric disorder on Axis I (OR = 0.6, C.I. 95% = 0.45 - 0.73) and with comorbid disorders (OR = 0.3, C.I. 95% = 0.20 - 0.52) was significantly lower.

Table 1: DSM Classifications of child patients (5-10): odd's ratios for ethnic minority children compared to native Dutch children (OR = 1; males N = 922; females N = 341)

| Ethnic background | Only V-codes | | One or more psychiatric disorder(s) | | Comorbidity | |
|----------------------------|--------------|-------------|-------------------------------------|-------------|-------------|-------------|
| | OR | C.I. (95%) | OR | C.I. (95%) | OR | C.I. (95%) |
| <i>Male children (N)</i> | | | | | | |
| Surinamese (106) | 5.8* | 3.36 - 9.82 | 0.3* | 0.22 - 0.54 | 0.2* | 0.10 - 0.65 |
| Turkish (81) | 3.2* | 1.64 - 6.39 | 0.6* | 0.32 - 0.98 | 0.6 | 0.27 - 1.22 |
| Moroccan (67) | 0.6 | 0.14 - 2.41 | 1.8 | 0.72 - 4.67 | 0.5 | 0.22 - 1.22 |
| Antillean and Aruban (40) | 2.1 | 0.71 - 6.05 | 0.6 | 0.27 - 1.32 | 0.3 | 0.07 - 1.16 |
| Other African (41) | 1.0 | 0.22 - 4.07 | 0.9 | 0.36 - 2.10 | 1.5 | 0.69 - 3.17 |
| Other western (92) | 1.8 | 0.81 - 3.88 | 0.8 | 0.42 - 1.37 | 1.2 | 0.69 - 2.08 |
| Other non-western (55) | 3.6* | 1.68 - 7.89 | 0.3* | 0.18 - 0.61 | 0.5 | 0.21 - 1.34 |
| <i>Female children (N)</i> | | | | | | |
| Surinamese (44) | 2.5* | 1.15 - 5.24 | 0.7 | 0.34 - 1.35 | 0.2 | 0.03 - 1.47 |
| Turkish (29) | 1.7 | 0.64 - 4.51 | 0.6 | 0.27 - 1.43 | 0.0 | - |
| Moroccan (12) | 1.3 | 0.27 - 6.23 | 0.9 | 0.22 - 3.20 | 0.8 | 0.10 - 6.14 |
| Antillean and Aruban (11) | 0.8 | 0.08 - 5.28 | 1.3 | 0.27 - 6.00 | 0.9 | 0.11 - 6.81 |
| Other African (18) | 0.4 | 0.05 - 2.99 | 1.4 | 0.40 - 5.00 | 1.7 | 0.47 - 6.14 |
| Other western (41) | 0.9 | 0.33 - 2.48 | 0.8 | 0.37 - 1.61 | 0.4 | 0.10 - 1.88 |
| Other non-western (40) | 1.6 | 0.69 - 3.86 | 0.6 | 0.30 - 1.23 | 0.0 | - |

* Significant according to the 95% C.I.

Table 2: DSM Classifications of adolescent patients (11-19): odd's ratio for ethnic minority adolescents compared to native Dutch adolescents (OR = 1; males N = 682; females N = 677)

| Ethnic background | Only V-codes | | One or more psychiatric disorder(s) | | Comorbidity | |
|-------------------------------|--------------|-------------|-------------------------------------|-------------|-------------|-------------|
| | OR | C.I. (95%) | OR | C.I. (95%) | OR | C.I. (95%) |
| <i>Male adolescents (N)</i> | | | | | | |
| Surinamese (114) | 3.0* | 1.66 - 5.46 | 0.6* | 0.40 - 0.97 | 0.8 | 0.38 - 1.75 |
| Turkish (89) | 2.3* | 1.12 - 4.59 | 1.1 | 0.61 - 1.88 | 0.4 | 0.12 - 1.22 |
| Moroccan (57) | 1.2 | 0.42 - 3.51 | 1.0 | 0.49 - 1.85 | 0.8 | 0.28 - 2.32 |
| Antillean and Aruban (37) | 2.0 | 0.66 - 5.76 | 0.9 | 0.41 - 2.06 | 0.6 | 0.14 - 2.62 |
| Other African (41) | 0.8 | 0.19 - 3.53 | 0.6 | 0.31 - 1.23 | 0.6 | 0.13 - 2.34 |
| Other western (86) | 1.9 | 0.88 - 4.01 | 0.8 | 0.46 - 1.33 | 0.7 | 0.26 - 1.70 |
| Other non-western (94) | 3.3* | 1.76 - 6.15 | 0.7 | 0.45 - 1.22 | 0.9 | 0.38 - 1.96 |
| <i>Female adolescents (N)</i> | | | | | | |
| Surinamese (162) | 2.0* | 1.32 - 3.13 | 0.6* | 0.39 - 0.80 | 0.4* | 0.18 - 0.82 |
| Turkish (84) | 1.4 | 0.74 - 2.55 | 0.6* | 0.34 - 0.87 | 0.4 | 0.13 - 1.04 |
| Moroccan (64) | 1.6 | 0.81 - 3.09 | 0.5* | 0.31 - 0.89 | 0.2* | 0.06 - 0.97 |
| Antillean and Aruban (42) | 2.8* | 1.36 - 5.57 | 0.5* | 0.24 - 0.84 | 0.4 | 0.09 - 1.57 |
| Other African (48) | 0.7 | 0.34 - 1.55 | 0.6 | 0.30 - 1.03 | 0.0 | - |
| Other western (127) | 1.2 | 0.71 - 2.07 | 1.0 | 0.62 - 1.47 | 0.5 | 0.24 - 1.06 |
| Other non-western (80) | 2.3* | 1.32 - 3.99 | 0.4* | 0.26 - 0.66 | 0.1* | 0.01 - 0.69 |

* Significant according to the 95% C.I.

Table 2 specifies these results for the different ethnic minority groups with the native Dutch group as the reference group. It shows that the likelihood for ethnic minority male adolescents to be classified with only V-codes compared to native Dutch males was significantly higher among Surinamese, Turkish and other non-western males. Although the results were not significant for the ethnic minority group as a whole, the likelihood to be classified with a psychiatric disorder on Axis I was significantly lower for Surinamese males. The likelihood to be classified with comorbid disorders was not significantly higher or lower for any of the ethnic minority groups.

The likelihood for ethnic minority female adolescents to be classified with only V-codes compared to native Dutch females was significantly higher for Surinamese, Antillean and Aruban, and other non-western females. For most ethnic minority females the likelihood to be classified with a psychiatric disorder on Axis I was significantly lower. Similarly, the likelihood to be classified with comorbid disorders was significantly lower for Surinamese, Moroccan and other non-western females compared to the native Dutch females.

Conclusions and discussion

The present study intended to gain insight in the effects of patient ethnicity on the received disorders in YMHC practice with no standard protocol for validated (cross-cultural) instruments, and where DSM classifications are given according to the clinical judgment of the professional. Our main conclusion is that ethnic minority children and adolescents received a psychiatric disorder on axis I less often than their native Dutch peers. In addition, ethnic minority children more often received only V-codes, indicating that insufficient information is available to know whether the presenting problem is attributable to a psychiatric disorder, than native Dutch children. Also, native Dutch children and adolescents more often received a comorbid diagnosis than their ethnic minority peers. Differences between the various ethnic minority groups in chances of being attributed to a certain DSM category of diagnoses compared to the native Dutch group, were found as well.

Our study showed that the ethnic background of the patient is an important factor in the outcome of the diagnostic process. Although prevalence rates of psychiatric disorders vary across ethnic groups and according to type of disorder, research has shown that in general, the prevalence of psychiatric disorders is at least as high among ethnic minority youth as among ethnic majority youth (Fombonne, 2002; Nikapota & Rutter, 2008; Reijneveld et al., 2005; G. W.

J. M. Stevens & Vollebergh, 2008; Van Oort et al., 2007; Zwirs et al., 2007). Therefore it is unlikely that our results designate that ethnic minorities have less psychiatric problems than their native Dutch peers and are therefore diagnosed less often with psychiatric disorders. A more logical explanation for our findings is that ethnic majority professionals have more problems recognizing psychiatric disorders when confronted with ethnic minority youth and therefore more often choose to use V-codes. This could imply that these children and adolescents are not adequately treated for their disorders in YMHC.

However, our results may be interpreted in alternative ways. One explanation might be that in the process of referral to YMHC, ethnic minorities without a psychiatric disorder have a higher probability to be referred to YMHC than ethnic minorities with a psychiatric disorder. Indeed, professionals (in the referral process) are likely to judge differently on behavioural and psychological cues dependant on the ethnic background of the client, the ethnic background of the professional, cultural values and education of the professional, as well as the culture of the institution itself (Torres et al., 2007; Zayas et al., 2005). This would indicate that immigrant children and adolescents that do have psychiatric disorders are less likely to be referred to YMHC and that they are treated elsewhere or not treated at all. More likely however, is that ethnic minority children that are referred to YMHC do have psychiatric problems, but there are differences between ethnic groups in the identified disorders by YMHC professionals. These YMHC professionals are prone to similar mechanisms as the professionals in the referral process. For instance, there are indications that different ethnic groups express problems in different ways and ethnic minorities can have a weak knowledge of the host countries language and some words can have different meanings within the various languages which hinder the diagnostic process (Nikapota & Rutter, 2008). In addition, ethnic minority parents are less willing or capable to share information on the development during the child years than native Dutch parents (Pels & Nijsten, 2003). Sharing this information of the early years is important, because it is hard to make correct diagnoses (for instance with ADHD or autism) without it. Also, ethnic minority parents and potential patients might have different perspectives on mental health care and mental health problems than native Dutch parents and potential patients. Most native Dutch patients enter mental health care because they know they have a certain problem that can be treated by YMHC. Subsequently one has to be familiar with YMHC and have trust in its possibilities in order to seek help at an YMHC institution (Zwaanswijk et al., 2003, 2005a). Ethnic minority groups appear to be less familiar with mental health problems and with the possibilities

of professional care that ethnic majority groups (Colijn, 2001). This would indicate that YMHC institutions are less accessible for ethnic minority children and adolescents than for their ethnic majority peers. Indeed, the chance for ethnic minority youth to receive mental health care was half the chance of native Dutch youth to receive it (De Haan, Boon, Vermeiren, & De Jong, 2012). These different perspectives, i.e., less knowledge and lower accessibility, might lead to minority youth with psychiatric problems not being treated in YMHC and might explain our results. This explanation however does not clarify why the minority children that do come into care are mainly treated for relational problems and not for psychiatric disorders. We therefore assume that, maybe in addition to all the alternative accounts, the best explanation for our findings is that there is an ethnic bias in the diagnostic process.

We advocate that to generate a cross-cultural validated diagnostic procedure, it is really important for YMHC institutions to work with (culturally validated) diagnostic instruments as the golden standard. Currently, diagnostic instruments, if used at all, are often not specific and sensitive enough to diagnose correctly with ethnic minority groups. For assessing diagnosis with (ethnic minority) children and adolescents, it would be best if this was done on the basis of deciding if diagnostic criteria are met, modeled on the gold standard for each disorder. This can for instance be done with the K-SADS, which is a semi-structured diagnostic interview designed to assess current and past episodes of psychopathology in children and adolescents according to DSM-IV-TR criteria (J. Kaufman, Birmaher, Brent, Rao, & Ryan, 1996; Puig-Antich & Chamber, 1978). The K-SADS is administered by interviewing the parent(s), the child, and finally achieving summary ratings which include all sources of information (parent, child, school, chart, and other). Concerning the DSM-IV-TR, some critics advocate that a more culturally sensitive approach to psychiatry is needed and that current diagnostic guidelines have a fundamentally Euro-American outlook (Kress, Eriksen, Rayle, & Ford, 2005; Widiger & Sankis, 2000). Indeed, the DSM-IV-TR is criticized not only for its cultural insensitivity, but it is also developmentally insensitive as well (Kress et al., 2005). In other words, many children, regardless of ethnicity, end up with V-codes or parent child relation conflict problems even in western settings or dominant culture settings. Still, our research indicates that this problem is much larger for ethnic minority patients than for native Dutch patients. The DSM-IV-TR offers an adaptive interview technique (the Cultural Formulation of Diagnosis) (APA, 2000; Kirmayer, Thombs, Jurcik, Jarvis, & Guzder, 2008) to compensate for the cultural insensitivity. Cultural interviews provide additional information on the client's life context and perceptual meanings and can ultimately facilitate

comprehensive care (Marsella & Kaplan, 2002). Assessing a client's worldview through such interviews, or how the client views the world from social, ethical, moral, and philosophical perspectives, is necessary to comprehensive, culturally sensitive assessment (Lonner & Ibrahim, 2002).

A limitation of the present study is that the various groups were too small to differentiate between more detailed diagnostic categories. However, such analyses were beyond the scope of this study, since we particularly wanted to analyse whether ethnic minority patients indeed received a V-code more often, and a psychiatric disorder less often than their native Dutch counterparts. In future research we would like to differentiate between for instance, depressive disorders and behavioural disorders and analyze whether an under-diagnosis or over-diagnosis of certain diagnostic categories within certain ethnic groups is present. For this purpose, we would also need information on the actual prevalence of these disorders within these ethnic groups. Such analyses were thus beyond the scope of our present research. In addition, diagnostic categories, which can be adapted or corrected during the diagnostic or treatment phase, were made upon arrival and entered into the registration system (diagnoses were thus not specifically made for this study). This limitation is simultaneously a strength of our research. Our goal was to evaluate the clinical practice of YMHC and we therefore used this naturalistic design. A different study (for instance assessing diagnoses with more structured methods with a selected group of patients), would show the actual differences in diagnoses between ethnic groups upon arrival. We would advocate such a study, but it would not evaluate the actual clinical practice (where clinicians often make diagnoses according to their clinical judgment). Third, we were not able to take the socioeconomic status (SES) of the patients into account. Indeed, ethnicity and SES are often correlated (i.e., ethnic minorities often have a lower SES than ethnic majorities) (CBS, 2009; Chen et al., 2006), and because both are seen as important interrelated variables causing ethnic differences in mental health care utilization (Garland et al., 2005), it is important to include the SES in the analysis when focusing on the ethnic background. Unfortunately, we did not have information on the SES of our patients, while it could have been a possible confounder. For instance, it is possible that V-codes are used more often for both ethnic minority and ethnic majority patients that have a low SES. Because ethnic minorities often have a lower SES, this might have influenced our results. But even if this is true, the diagnostic procedure should likewise be adapted for ethnic minority youth with a low SES. Still, we recommend that future research takes both ethnic background and SES into account. A

fourth limitation is that it is unknown which children and adolescents did not enter YMHC. This information could have been valuable to complete our results on potential ethnic biases within the diagnostic procedure, because then we could have excluded that the diagnostic differences between ethnic groups reflect real diagnostic differences. Fifth, we did not have detailed information on which psychologist, psychotherapist, or psychiatrist treated which patient. We therefore could not analyse the potential confounding effects of the therapists, i.e., we do not know whether the differences that we found were due to the diagnostic capabilities of just one or two therapists or whether therapists that were more highly trained, showed less differences in diagnosing the various ethnic groups. Still, the large number of patients, and the significant results, indicate that the found differences between given diagnoses reflect the actual differences in clinical practice. Finally, characteristics of the Dutch health care system may limit generalizability – external validity of the results found in this study. Utilization of health care services in the Netherlands is largely independent from financial constraints, therefore all Dutch children are covered by public or private health insurance (Zwaanswijk et al., 2005a). The results may not be directly applicable to nations in which major financial constraints hamper the availability of care.

In spite of several limitations, we believe that this study is an important first step in increasing the knowledge on the potential biasing effects of ethnic background on diagnostic procedures within YMHC. Conclusively, it can be stated that psychiatric disorders might not always be recognized by professionals in YMHC when they have to work with ethnic minority youth. Ethnic minority children and adolescents might therefore more often be diagnosed with V-codes than native Dutch children and adolescents. This could imply that these children and adolescents are not adequately treated for their disorders in YMHC. YMHC professionals should therefore reflect on potential biasing effects of patient ethnic background in their diagnostic procedures and assessments

CHAPTER 5

A meta-analytic review on treatment dropout in child and adolescent outpatient mental health care

Clinical Psychology Review, 2013, 33(5): 698-711

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Abstract

A large proportion (28% up to 75%) of the treatments in youth mental health care results in premature termination (dropout). It is important to gain knowledge of the determinants of dropout because it can have very severe consequences. The aim of our meta-analytic review was to provide an overview of findings from empirical studies on this subject. We structured the often contradicting results from two perspectives. First, we compared studies with efficacy and effectiveness designs. Second, we compared studies which used a dropout definition based on the opinion of therapists, with those that took the number of predetermined completed sessions as a criterion. Third, we studied three groups of predictors, i.e., pre-treatment child variables, pre-treatment family or parent variables, and treatment and therapist variables or treatment participation barriers.

The meta-analytic review showed that dropout percentages were strongly influenced by study design: Percentages were lower in efficacy than in effectiveness studies. Within effectiveness studies, the dropout percentages were lower when the therapist's opinion was used rather than when the number of sessions was used as a criterion. In efficacy studies on the contrary, the dropout percentages were similar for studies using the first or the second criterion. With respect to dropout predictors, results were less clear. Some of the dropout predictors were influenced by study design or dropout definition, but for most predictors this influence could not be analyzed because they were not studied in all groups of studies or because the effect sizes were small or non-significant. Treatment and therapist variables or experienced treatment participation barriers were overall stronger dropout predictors than the pre-treatment child variables and pre-treatment family or parent variables, although some strong predictive pre-treatment variables emerged as well.

Keywords: dropout predictors; dropout percentages; outpatient youth mental health care; efficacy studies; effectiveness studies; dropout definition.

Introduction

Due to psychiatric problems an estimated seven percent of the children and adolescents in western societies is limited in its functioning to such a degree that psychiatric treatment is recommended (Friedman et al., 1996; Rutter & Stevenson, 2008). However, only 2.5 percent of the young population finds its way to youth mental health care (YMHC) (De Haan et al., 2012; Meltzer et al., 2000; Zachrisson et al., 2006). Of the children and adolescents that do receive treatment, an estimated 28% up to 75% terminates psychotherapy prematurely (Baruch et al., 2009; Lai et al., 1998; Luk et al., 2001; Midgley & Navridi, 2006).

Although not all children benefit from psychiatric treatment, therapy certainly increases the likelihood that psychiatric problems get resolved. When children drop out of psychiatric treatment, their disorders might persist or even worsen later in life (Dulmus & Wodarski, 1996; Reis & Brown, 1999). For instance, children with untreated disorders are likely to grow up as adults who rely on mental health services, which has negative consequences for themselves, their surroundings and society (Dulmus & Wodarski, 1996; Kazdin, Mazurick, & Siegel, 1994; Kazdin & Wassell, 1998; Reis & Brown, 1999). Compared to children who do receive treatment, children with untreated behavioral problems (premature terminators or those who do not receive treatment at all) are more likely to leave school without a qualification, engage in delinquent activities, abuse drugs and alcohol and become unemployed (Lochman & Salekin, 2003; Moffitt et al., 2002). In addition, untreated, early-onset anxiety disorders often continue into adulthood (Dadds et al., 1999) and academic underachievement and substance dependence are likely to follow (Woodward & Fergusson, 2001). In order to prevent these negative consequences of treatment dropout, it is important to gain knowledge of its determinants. The prevention of dropout is likely to result in more (cost) effective care.

In contrast to adults, in most cases children do not seek treatment for themselves. Motivation for entering and remaining in treatment largely depends on others, like parents, teachers or referral agencies. Frequently, parents participate in their child's treatment and consequently, parent and family characteristics play a central role in continuation or termination of treatment (Armbruster & Kazdin, 1994). In the most recent review on dropout among child and adolescent patients, Armbruster and Kazdin (1994) concluded that no clear profile emerged regarding the characteristics of child and adolescent patients that dropout of treatment and the conditions under which dropout appears. Various potential dropout predictors had been studied until then, such as age, gender, child IQ, homelessness, source of referral, prior psychiatric

treatment, treatment modality, socioeconomic status, ethnic minority status, proximity to the mental health institution, parental stress and psychopathology. For all of these factors, results differed per study. The authors concluded that mere identification of the different static variables without conceptualizations of the underlying process of premature termination is unlikely to improve our understanding of dropout (Armbruster & Kazdin, 1994). Indeed, most studies focused on child or family and parent factors that are present prior to treatment and cannot be changed during treatment. They advised that, in order to reduce dropout, the focus should shift to factors that can be changed during treatment, such as the underlying processes of treatment and therapist variables. The first theoretical model on these processes was introduced; the barriers-to-treatment-participation model (Kazdin et al., 1997a; Kazdin et al., 1997b). This model proposes that families experience multiple barriers associated with participating in treatment and that these barriers increase the risk for dropping out. These barriers include stressors and obstacles that compete with treatment participation (such as conflict with a significant other about coming to treatment), treatment demands and issues (such as treatment being too costly or too long), perceived relevance of treatment (such as the perception that treatment is of little relevance to the child's problems), and the relationship with the therapist (such as little perceived support from the therapist). In addition, specific critical events such as moving to another city or death of a close relative, may lead to sudden treatment termination. Although such events might be more common in families who drop out, these events are not seen as the typical barriers that account for the high dropout rates in child and adolescent therapy. The absence of barriers might serve as a protective factor (i.e., for families with a high risk for dropping out, the perception of few barriers might attenuate the risk), while the presence of barriers could serve as a mediator by explaining how other (static) predictors operate to produce dropping out (Kazdin et al., 1997b).

Since 1994 no review on child and adolescent psychotherapy dropout has been published. Our aim is therefore to do a meta-analytic review of the studies on dropout in child and adolescent therapy published later than 1994 and calculate mean effect sizes for the dropout predictors that emerge from these studies. We will try to explain the variety in dropout percentages and dropout predictors across studies, taking two focal factors into account.

First, a generalization and comparison of results is dubious because the majority of studies on dropout from child and adolescent psychotherapy were efficacy studies conducted in randomized control trials (RCT's) with strict inclusion criteria (Dierker, Nargiso, Wiseman, &

Hoff, 2001; Kazdin et al., 1997a; Kendall & Sugarman, 1997; La Greca, Silverman, & Lochman, 2009; Pina, Silverman, Weems, Kurtines, & Goldman, 2003). Efficacy research tends to follow strict protocols and manuals, has a pre-ordained length of time, is conducted by highly trained staff, and treatment fidelity is guarded (Southam-Gerow, Weisz, & Kendall, 2003). Because of the selection procedures employed in randomized control trials, certain groups of patients are less likely to be included, e.g., the included patients are often Caucasian or European-American, of a high socioeconomic status and without comorbidity (Luk et al., 2001; L. M. Miller, Southam-Gerow, & Allin Jr., 2008). These strict standards are almost never met in clinical practice, where comorbidity is often the norm, and clinicians often tailor their treatment to the needs of the individual patient (Bickman, 2002; Southam-Gerow et al., 2003). It is therefore highly uncertain whether dropout determinants found in efficacy studies can be generalized to community based practice where effectiveness studies often use a naturalistic and quasi-experimental design.

Second, there is a variation in operational definitions of premature termination and classification of dropout status (Armbruster & Kazdin, 1994; Warnick et al., 2012; Wierzbicki & Pekarik, 1993). Many studies define dropout in terms of treatment duration or number of sessions completed, where clients attending less than the specified number of sessions are categorized as dropouts. An obvious problem with this approach is that both treatment completion and dropout can occur after any number of sessions (Wierzbicki & Pekarik, 1993). Some patients, although terminating treatment earlier than planned, can still be considered successful terminators because sufficient improvement in their mental health was achieved in a shorter than planned duration. Therefore not all premature terminators represent treatment failure. A definition based on a predetermined number of sessions will result in a dropout group comprised of a mixture of dropouts and appropriate premature terminators because some patients, though terminating treatment earlier than planned, can be considered successful (Johnson, Mellor, & Brann, 2008).

The two factors described above (i.e., study design and dropout definition) might be the main reasons as to why there is such variation in results across dropout studies. We will focus on these two factors in order to investigate whether they can indeed explain the variety in dropout percentages and dropout predictors across studies. The aim of our meta-analytic review is to provide an overview of the findings from empirical studies on premature termination in child and adolescent therapy of the studies published after 1994. In our review we will investigate and compare the dropout studies from this two perspectives. First, we will make a distinction

between studies with efficacy and effectiveness (or naturalistic) designs. And second, we will focus on the various definitions of dropout being used. We expect the results to become more structured when reviewing them along these lines, and we expect that these two perspectives will explain a part of the wide variation in results from dropout research. Third, we will focus on the three groups of predictors, i.e., pre-treatment child variables, pre-treatment family or parent variables, and therapist and therapy variables or treatment participation barriers.

Method

Literature search

An extensive search was carried out in PsycINFO, MEDLINE and Psychology and Behavioral Science Collection databases to locate journal articles on the subject of premature termination of therapy with children and adolescents. In addition, the articles located were inspected for further relevant references. The following key-words were used in the search:

- *premature termination AND therapy OR premature termination AND psychotherapy OR premature termination AND treatment*
- *dropout AND therapy OR dropout AND psychotherapy OR dropout AND treatment OR drop(-)out AND therapy OR drop(-)out AND psychotherapy OR drop(-)out AND treatment*
- *attrition AND therapy OR attrition AND psychotherapy OR attrition AND treatment*
- *unilateral termination AND therapy OR unilateral termination AND psychotherapy OR unilateral termination AND treatment*

The following limitations were added: The search results were limited to 'Peer Reviewed' articles and articles published between 'Publication Date' 1994 – 2012, 'Age': *Childhood (birth – 12 yrs), All Child (0-18 yrs), Adolescence (13-18 yrs), School Age (6-12 yrs), Preschool Age (2-5 yrs), Child: 6-12 yrs, Adolescent: 13-18 yrs*. This initial literature search yielded an amount of 828 articles after removal of duplications.

From these articles the abstracts were studied. Subsequently the method sections, and when indicated (i.e., according to the inclusion criteria), the whole articles, were studied by the first author to select the articles that met the inclusion criteria. The second author independently checked whether the selected articles indeed met the inclusion criteria.

The inclusion criteria were: (a) peer-reviewed articles in the English language, (b) the studies had to be done in outpatient settings (not inpatient settings), and (c) the age of the subjects was between 0 and 20 years. Excluded were (1) studies limited to the treatment of

preventing recidivism (i.e., for sexual abusers, alcohol/drug abusers, forensic clients etc.), (2) studies limited to medication therapy settings (i.e., where dropout is defined as not adhering to the prescribed medication), (4) theoretical and qualitative articles, (5) studies that only focused on retention or number of visits without defining the status of termination (i.e., it was unclear whether someone was a dropout or a completer etc.), (6) studies that focused on internet therapy because this is too specific.

Focus of the meta-analytic review

The focus will lie on the two perspectives described in the introduction (i.e., study design and dropout definition). First, the first two authors analyzed all the included studies to determine whether an efficacy or effectiveness design was used. The goal was to find similarities and differences in dropout percentages and dropout predictors between the studies with an efficacy versus the studies with an effectiveness design. The dropout predictors were ordered according to the theory of barriers to treatment participation. The first group contains, static pre-treatment child variables, the second contains static pre-treatment parent or family variables, and the underlying processes of therapist and therapy variables or treatment participation barriers (that might be changed during therapy) were regarded as the third group of predictors.

Within these two groups of studies (efficacy and effectiveness), the first two authors studied the various dropout definitions that were used. A content analysis of these definitions was performed resulting in two categories based on similarity of intentions. All definitions could be assigned independently by the first two authors to these categories with a good inter-coder reliability (Krippendorff & Bock, 2008). Again, the goal was to find similarities and differences in dropout percentages and dropout predictors between the studies with the two categories of definitions.

In total, 48 articles were analyzed using the first perspective: this resulted in 30 effectiveness studies, 17 efficacy studies, and one study that used both designs. The same 48 articles were analyzed using the second perspective: in the result section it is described how the definitions were categorized in two groups.

Statistical analyses

For each predictor within each study, an effect size was calculated. We used Cohen's *d* to express the strength or the predictive value of a variable to predict dropout. A (positive or

negative) value of Cohen's *d* of 1.3 or higher is interpreted as a very large effect, a value between .80 and 1.29 is interpreted as a large effect, a value between .50 and .79 as a medium to large effect, a value between .20 and .49 as a small effect and a lower value is considered negligible (M. W.; Lipsey & Wilson, 2001). We used an effect size determination program (Wilson, 2001) to transform the test statistics χ^2 , *F*, *t*, or *p* values into Cohen's *d*. Or we used the information on means and standard deviation scores of the dropout and the completer groups for a specific variable, and transformed these values into Cohen's *d* with the effect size determination program. In some cases we had to construct a 2x2 cross-table in order to calculate a χ^2 , using information about percentages and the distribution of dropouts and completers for the specific variable. If studies only reported that a certain relationship was non-significant, we applied conservative estimation procedures, i.e., we assigned a *p* value of 0.50 if a non-significant effect was reported (Mullen, 1989). For several studies it was not possible to calculate effect sizes because only multivariate analyses were done. The results of these studies will be described in the result section.

For each predictor within each of the four groups of studies, we conducted a meta-analysis. For the calculation of the mean effect sizes we used the SPSS macro MeanES of Lipsey and Wilson (2001). Significance tests were performed through fixed or random effects models, depending on the homogeneity of the study outcomes. When the effect sizes were homogenous (according to the within-class homogeneity statistic *Q*), fixed effect model tests were used. When the effect sizes were heterogeneous, more conservative random effect model tests were used. Independence of study results is desirable when conducting a meta-analysis in order to preclude that a particular study is weighted more strongly than the others (M. W.; Lipsey & Wilson, 2001). Dependence of effect sizes was prevented by combining the study results when for instance more than one result per study was taken in the calculation of an effect size. This produced only one mean effect size per predictor (in the calculation of the effect sizes per predictor per group of studies), or one mean effect size per study (in the calculation of overall effect sizes per predictor or overall effect sizes per predictor group) and this mean effect size was then taken in the further calculations.

Further, for each study we coded the dropout percentage and calculated an overall mean drop-out percentage, weighted by *N*. Some studies reported more than one dropout percentage because percentages for various dropout definitions (e.g., early vs. late dropout), or percentages for the different (ethnic or diagnostic) groups were given. In these cases, the dropout rate for

the study as a whole was calculated based on the number of the respondents in the different conditions (N). For instance, the dropout rate of 40 African Americans in a study was given twice the weight of the dropout rate of 20 Hispanic Americans in that same study. This weighted dropout rate was used in the calculations for the mean dropout rate across all studies. Mean dropout rates for a group of studies (e.g., the mean rate for studies with a certain design or using a certain dropout definition) were calculated based on the number of respondents in each study. For instance, when calculating an average dropout rate, the dropout rate of a study with 50 respondents was given five times more weight than the dropout rate of a study with 10 respondents.

Results

Results for dropout percentages

Perspective 1: Study design and dropout percentages

The dropout rates in the efficacy studies (N = 17) were relatively low (mean = 28.4%, range = 16 – 50%), while the dropout rates in the effectiveness studies (N = 30) were much higher (mean = 50%, range = 17 – 72%) (see table 1). The study that used both designs compared dropout percentages from a naturalistic design with a randomized control trial (Luk et al., 2001). The naturalistic design (effectiveness) in this study also had a much higher dropout percentage than the randomized control trial (efficacy).

Table 1: Description of the included studies

| Study | N (age) | Treatment type and Diagnostic group | Definition of dropout | Dropout percentages |
|---|------------|---|--|---|
| Effectiveness studies & Definition referring to opinion of therapist | | | | |
| 1. Armbruster & Fallon (1994) | 304 (0-18) | Oppositional, aggressive, antisocial behavior | Failure to attend, repeated cancellations resulting in no further contact, or open refusal of recommendations for further evaluation or treatment. | d.o. = 45% |
| 2. Kazdin & Mazurick (1994) | 257 (4-13) | Cognitive problem-solving skills training and Parent management training Oppositional, aggressive, antisocial behavior | Premature termination on the basis of a unilateral decision by parent or family, while inadvisable and against advice of clinical team. Early d.o.: completed 6 or fewer treatment weeks (1 session per week), late d.o.: termination form 7 to 14 weeks of treatment. | Early d.o. = 29,2% Late d.o. = 18,3% Total = 47,5% |
| 3. Kazdin et al. (1994) | 75 (4-13) | Cognitive problem-solving skills training and Parent management training Oppositional, aggressive, antisocial behavior | Premature termination based on the unilateral decision by parent or family, while inadvisable and against advice of clinical team. 3 constructed groups (for each N = 25): dropouts, matched completers, unmatched completers. | No dropout percentages |
| 4. Kazdin et al. (1995) | 279 (3-13) | Cognitive problem-solving skills training, Parent management training Oppositional, aggressive, antisocial behavior | Premature termination based on the unilateral decision by parent or family, while inadvisable and against advice of clinical team. | d.o. Black children (N = 99) = 59,6% d.o. White children (N = 180) = 41,7% Mean = 48,1% |
| 5. Kazdin et al. (1997) | 242 (3-14) | Cognitive problem-solving skills training, Parent management training Oppositional, aggressive, antisocial behavior | Premature termination based on the unilateral decision by parent or family, while inadvisable and against advice of clinical team. It occurred when parent noted explicitly that they did not wish to continue or when they did not come for at least 3 consecutive weeks. | d.o. = 39,7% |
| 6. Lai et al. (1997) | 235 (6-14) | All | Unilateral termination of treatment without the psychiatrist's agreement. | d.o. = 27,2% |
| 7. Venable & Thompson (1998) | 85 (3-18) | All | Caretakers whose children attended fewer than 10 counseling sessions and the children did not meet therapeutic goals (in the judgment of counselors). | d.o. = 21% |
| 8. Kazdin & Wassell (1998) | 304 (3-13) | Cognitive problem-solving skills training, Parent management training Oppositional, aggressive, antisocial behavior | Premature termination that was based on the unilateral decision by parent or family, while inadvisable and against advice of clinical team. At least one session had to be completed. | d.o. = 38% |

| | | | | |
|------------------------------------|--|--|---|---|
| 9. Lai et al. (1998) | 235 (6-14) | All | Unilateral termination of treatment without the psychiatrist's agreement. Early d.o.: failure to return after initial assessment Late d.o.: unilateral termination after returning as least one after initial assessment | Early d.o. = 9,4% Late d.o. = 17,9% Total = 27,2% |
| 10. Peikonen et al. (2000) | 297 (12-22) | Eclectic treatment | Treatment did not continue after the evaluation phase, or the key problems had not been worked through and need for care was still evident. | Early d.o. = 11,1% No percentages given for other dropout groups |
| 11. Dierker et al. (2001) | 117 (0-18) | All | Early d.o.: only one or two appointments. Went through the (SRT) service review team process, but excited before goals were met and/or before the child was linked to external services. Refusers: were never served by the system. | d.o. = 20,5% Refusal = 46,2% |
| 12. Nock & Kazdin (2001) | 405 (2-15) | Cognitive problem-solving skills training, Parent management training Oppositional, aggressive, antisocial behavior | Parents stated explicitly that they did not want to continue treatment or they failed to appear for at least three consecutive weeks and failed to return after direct contact. | No dropout percentages |
| 13. Luk et al. (2001) | RCT: 32 Naturalistic: 46 (5-16) | Cognitive behavioral therapy, Conjoint family therapy, eclectic treatment Conduct problems | The family failing to turn up for appointments and not returning to continue with treatment, despite invitation to do so. | d.o. RCT = 31,3% d.o. naturalistic = 48% |
| 14. Garcia & Weisz (2002) | 344 (7-18) | All | Clinic record information: statements that termination was 'against therapist advice' or 'premature' were used to indicate dropout. Early d.o.: five treatment sessions or less. Late d.o.: six sessions or more. | d.o. = 61,6% |
| 15. Lamb et al. (2002) | 445 (6-12) | All | Non-attenders early d.o.: attended only once late d.o.: attended more than once but treatment unilaterally terminated by family | Non-attendance Bangladeshi = 39,4% Non-attendance natives = 26,9% Early and late d.o. both groups = 36,4% |
| 16. Lau & Weisz (2003) | 343 (7-17) | A reported history of maltreatment | Discontinuing without the consent of the therapist. Early d.o.: discontinuing before receiving the median number of sessions (eight). | No dropout percentages |
| 17. Hawley & Weisz (2005) | 65 (7-16) | All | Level of therapist concurrence with termination decision, rated from complete disagreement to complete agreement. | No dropout percentages |
| 18. Halliday-Boykins et al. (2005) | 1711 (6-18) | Multisystemic therapy | Reasons for discharge reported by therapists (i.e., successful vs. not successful) | d.o. = 33% |

| | | | | |
|--|-------------|--|--|---|
| 19. Stevens et al. (2006) | 186 (5-17) | All | Therapist indication that treatment goals had not been at least partially met. | No dropout percentages were given |
| 20. Johnson et al. (2008) | 520 (6-18) | All | Unilateral decision of the client to terminate treatment, through stating their desire to discontinue and not making any more appointments or by failing to attend sessions even when followed up. | d.o. = 49% |
| 21. Jensen-Doss & Weisz (2008) | 197 (7-17) | All | Treatment termination without concurrence of the clinician. | d.o. = 59,4% |
| 22. Johnson et al. (2009) | 520 (6-18) | All | Unilateral decision of the client to terminate treatment, through stating their desire to discontinue and not making any more appointments or by failing to attend sessions even when followed up. | d.o. = 49% |
| 23. Gonzales et al. (2011) | 197 (5-18) | Clinically significant anxiety | Clinician-rated d.o. (CR) (this determined who was seen as a dropout): youths/families who unilaterally decided to terminate and discontinued contact with clinic (terminations for reasons beyond ones control were seen as non-d.o.) The dropouts were further delineated by number of sessions → Phase of treatment d.o. (PT): pre-treatment (0-1 sessions), early (2-6 sessions), late (> 6 sessions) Three definitions 1. Clinician judgment: youths were classified as dropouts based on the clinician coded reason for discharge 2. Missed last appointment: youths were classified as dropouts if they did not attend their last scheduled appointment 3. Dose: attending less than 12 sessions within 4 months | d.o. CR = 51,3% (= total dropout) d.o. PT: pre-treatment = 12,7%, early = 14,2%, late = 24,4% d.o. def 1 = 63,1% d.o. def 2 = 56,6% d.o. def 3 = 88,1% → d.o. with def 'opinion of the therapist' = 63,1% |
| 24. Warnick et al. (2012) | 1098 (5-18) | All | | |
| Effectiveness studies & Definition referring to completing a certain number of sessions | | | | |
| 25. Yeh et al. (1994) | 4616 (6-17) | All | Clients not returning to the mental health facility after the first session. Length of treatment (total number of sessions) was taken into account. | No dropout percentages |
| 26. Baruch et al. (1998) | 134 (12-24) | Psychoanalytic psychotherapy | Early d.o.: Dropping out after the first session and before the sixth session. Late d.o.: Dropping out after the fifth session and before the 21st session | Early d.o. = 30,6% Late d.o. = 29,1% Total = 59,7% |
| 27. McCabe (2002) | 50 (6-12) | All | Parents who did not return after completing the intake or one session beyond the intake. | d.o. = 29% |
| 28. Peters et al. (2005) | 75 (3-10) | Parent management training (PMT) Oppositional-defiant disorder, Conduct disorder | Attending less than 50% of the ten offered sessions of group PMT or individual PMT when a groups PMT sessions could not be attended | d.o. = 52% |

| | | | | |
|----------------------------|-------------|--|--|--|
| 29. Friars & Meilor (2007) | 18 (11-17) | Behavioral management program groups ADHD, oppositional defiant disorder, or Conduct disorder | Those who commenced treatment but dropped out attending less than four sessions. | Never started = 38,9% d.o. = 54,5% |
| 30. Miller et al. (2008) | 447 (2-17) | All | Those who attended only one (intake) appointment. | d.o. = 17% |
| 31. Baruch et al. (2009) | 882 (12-21) | Psychoanalytic psychotherapy | Dropping out before the 21st session on basis of unilateral decision made by the young person without agreement of therapist. | d.o. = 69% |
| 24. Warnick et al. (2012) | 1098 (5-18) | All | Three definitions 1. Clinician judgment: youths were classified as dropouts based on the clinician coded reason for discharge 2. Missed last appointment: youths were classified as dropouts if they did not attend their last scheduled appointment 3. Dose: attending less than 12 sessions within 4 months | d.o. def 1 = 63,1% d.o. def 2 = 56,6% d.o. def 3 = 88,1% → d.o. with def 'number of sessions' = 72,4% |

Efficacy studies & Definition referring to opinion of therapist

| | | | | |
|-------------------------------|------------------------------------|--|--|--|
| 32. Kendall & Sugarman (1997) | 190 (8-14) | Cognitive-behavioral treatment Anxiety disorders | Starting treatment but unilaterally decide to terminate before the end of the time-limited treatment. Refusers: were evaluated and offered treatment but never received it. | d.o. = 23% |
| 13. Luk et al. (2001) | RCT: 32 Naturalistic: 46 (5-16) | Cognitive behavioral therapy, Conjoint family therapy, eclectic treatment Conduct problems | The family failing to turn up for appointments and not returning to continue with treatment, despite invitation to do so. | d.o. RCT = 31,3% d.o. naturalistic = 48% |
| 33. Pina et al. (2003) | 137 (6-16) | Exposure-based treatment Phobic and anxiety disorders | Beginning to attend treatment sessions but unilaterally terminate the treatment program. | d.o. = 22,6% |
| 34. Harwood & Eyberg (2004) | 22 (3-6) | Parent-child interaction therapy Oppositional deficit disorder | Attending at least one treatment session and then discontinuing treatment before reaching graduation criteria. Dropout occurs unilaterally and is classified as treatment failure. | No dropout percentages (selection of 11 dropout families and 11 completer families) |
| 35. Fernandez & Eyberg (2009) | 99 (3-6) | Parent-child interaction therapy (PCIT) and Maintenance treatment (MT) or Assessment only (AO), during 2-year follow-up Oppositional deficit disorder | With PCIT: discontinuing treatment at any point after attending the first treatment sessions and before meeting the treatment completion criteria (parents reaching pre-set skill levels) With MT and AO: not participating in the final 2-year assessment. | d.o. PCIT (N = 99) = 36,4% (= total dropout) d.o. AO (N = 32) = 53% d.o. MT (N = 31) = 39% |

Efficacy studies & Definition referring to completing a certain number of sessions

| | | | | |
|---------------------------|------------------------|---|---|--|
| 36. Prinz & Miller (1994) | 147 (4-9) only boys | Standard family treatment (SFT, N =75) vs. Enhanced family treatment (EFT, N = 72) Conduct problems and aggression | Families who attended some treatment sessions but did not complete the entire protocol. | d.o. SFT = 46,6% d.o. EFT = 29,2% Mean = 38,1% |
|---------------------------|------------------------|---|---|--|

| | | | | |
|---------------------------------|-------------|--|--|--|
| 37. Gilbert et al. (1994) | 65 (13-17) | Social skills training or therapeutic support group (both group therapy) | Those that attended fewer than two-thirds of the therapy sessions | d.o. = 30,8% |
| 38. Robbins et al. (2003) | 34 (12-18) | Depressive disorders Functional family therapy | Attending less than eight sessions and being identified by the therapist as unsuccessful termination | No dropout percentages |
| 39. Wintersteen et al. (2005) | 600 (12-18) | Drug abuse and/or behavior problems Motivational enhancement therapy, Individual behavioral therapy, Multidimensional family therapy Substance abusers | Attending less than two-thirds of the indented treatment sessions | d.o. ethnic match (N = 379) = 21% d.o. no ethnic match (N = 163) = 45% Mean = 28,2% d.o. = 18,7% |
| 40. Shelif et al. (2005) | 91 (12-18) | Multidimensional family therapy | Completing less than eight sessions | d.o. = 24,4% |
| 41. Pereira et al. (2006) | 41 (12-18) | Family therapy Anorexia Nervosa | Participating in less than 80% of the assigned therapy (i.e., 8 sessions for the short term treatment and 16 sessions for the longer course treatment). | Total d.o. = 16% d.o. long treatment = 23,8% d.o. short treatment = 9,1% No dropout percentages |
| 42. Lock et al. (2006) | 86 (11-18) | Family based therapy Anorexia Nervosa | Participating in less than 80% of the assigned therapy (i.e., 8 sessions for the short term treatment and 16 sessions for the longer course treatment). | d.o. = 41% |
| 43. Robbins et al. (2006) | 30 (12-18) | Multidimensional family therapy Drug abusers | Completing less than eight sessions and being classified by the therapist as a dropout | |
| 44. Chasson et al. (2008) | 99 (5-19) | Exposure-based cognitive behavioral therapy. Trauma victims. | Terminating treatment before completing a post-treatment assessment packet (this marks the end of treatment for all patients) → dropouts attended nearly 15 sessions fewer on average than completers. | |
| 45. Flicker et al. (2008) | 86 (13-19) | Functional family therapy Substance abuse or dependence | Not completing all therapy sessions for which they were scheduled | d.o. Hispanic = 48,8% d.o. Caucasian = 34,9% Total d.o. = 41,9% d.o. = 27,4% |
| 46. Gunnersdottir et al. (2011) | 84 (7-13) | Family-based behavioral treatment Childhood obesity | Not completing the full treatment regimen (18 weeks) | |
| 47. Cordaro et al. (2012) | 58 (14-19) | Guided Self-Change (GSC) therapy Alcohol or drug abuse | Not completing the full GSC treatment regimen (but after having completed the first or second therapy session) | No dropout percentages (29 dropouts and 29 completers were selected from a larger sample) d.o. TST (N = 10) = 10% d.o. CAU (N = 10) = 90% Mean = 50% |
| 48. Saxe et al. (2012) | 20 (7-18) | Trauma systems therapy (TST) vs. Care as Usual (CAU) Exposure to a traumatic event | Terminating treatment before the 3-months reassessment | |

Perspective 2: Definition of dropout and dropout percentages

Many variations in definitions were found. After a content analysis, the definitions were divided in two main groups. Within the first group of studies, the judgment of the therapist was the decisive factor in the dropout definition: it was the therapist that decided who was to be regarded as a dropout (definition (i)). In the second group of studies, dropout was defined as termination before a certain number of sessions, or before all the predetermined sessions of the treatment regimen were completed or when the last scheduled session was not attended (definition (ii)). One study used three different definitions (two of which can be mingled in one group) and described dropout percentages and dropout predictors for each definition (Warnick et al., 2012) (study 24). This study will therefore be described in both the first group of articles (i) and in the second group of articles (ii). Another study used one definition (i) to obtain a group of dropouts, but thereafter further delineated the dropouts by using a second definition (ii) (Gonzalez, Weersing, Warnick, Scahill, & Woolston, 2011) (study 23). This article will only be described in the first group of studies though, because the decision as to who was a dropout, was made according to definition (i).

Definition (i): This type of definition was used within 28 studies (see table 1). Sometimes the therapists were asked whether they agreed with the decision of the patient to terminate treatment. In other cases, previously set goals or graduation criteria (by the therapist) were used as the reference. When the therapist did not agree with the decision of the patient or parent to terminate, or when patients decided to terminate 'before goals were met' or 'before reaching graduation criteria', these patients were seen as dropouts. Dropout percentages in these studies varied from 20 to 63 (mean = 35,8%). Some of the aforementioned studies (study 2, 10, 11, 32) also used the number of sessions to differentiate between various drop-out groups (e.g., early vs. late drop-outs).

Definition (ii): This type of definition was used within 21 studies (see table 1). There was a wide variation in dropout percentages from 16 to 72% in these studies (mean = 44,5%). These percentages depended on the number of sessions that was used to define dropout. In the studies where dropout was defined as not completing the full pre-ordained length of treatment, dropout percentages varied from 27 to 47. When dropout was defined as termination before the sixth session, the percentages varied from 16 to 31. When dropout was defined as termination somewhere after the sixth session (e.g., completing fewer than $2/3^{\text{rd}}$ of the

treatment regimen, completing less than 80% of the treatment regimen, completing less than 21 sessions), the dropout percentages varied from 18 to 69. The study of Warnick et al. (2012) compared the dropout rates between the definitions 'missing the last scheduled appointment' and 'completing less than 12 sessions in four months'. Using the first definition, the dropout percentage was 56,6%, while the dropout percentage was 88,1% when the second definition was used.

The average dropout percentages of the studies within group (i) were lower than the average dropout percentages of the studies within group (ii) (i.e., 35,8% vs. 44,5%). This finding was similar to the findings of Warnick et al. (2012) (an effectiveness study). In this study, three dropout definitions were used and dropout percentages were compared for each condition. When regarding the definition that belonged to group (i), the dropout percentage was indeed lower (i.e., 63,1%) than the average dropout percentage when regarding the two definitions that belonged to group (ii) (i.e., 72,4%). In addition, some differences were found between the studies within group (i) and (ii) when the study design was taken into consideration. Twenty-three of the twenty-eight studies which took the opinion of the therapist as the criterion for dropout (definition i) were effectiveness studies (mean dropout % = 45,3), four studies were efficacy studies (mean dropout % = 26,4), and one study used both designs (Luk et al., 2001). Thirteen of the twenty-one studies that defined dropout as terminating before a predetermined number of sessions was attended (definition ii) were efficacy studies (mean dropout % = 29,2) and nine of them were effectiveness studies (mean dropout % = 59,8). Within the efficacy studies, the specified number of sessions that had to be completed was often derived from theoretical frameworks about the specific treatment. Within the effectiveness studies, it was less clear why a certain number of sessions had been chosen, other than 'based on previous experience'.

Results for dropout predictors

We combined the two perspectives (study design and dropout definition) to describe the results for the dropout predictors. This resulted in four sections in which the dropout predictors will be described: 1) effectiveness studies using definition (i), 2) effectiveness studies using definition (ii), 3) efficacy studies using definition (i), and 4) efficacy studies using definition (ii). The effect sizes of all predictors are displayed in table 2. The predictors that had medium to large or

stronger effect sizes and were also significant will be further described in the four subsequent sections. Although caution should be held when these significant effect sizes are based on the results of only one or two studies.

As stated, the first two groups of predictors were the pre-treatment variables. These were static variables: child factors, and family or parent factors. The third group of dropout predictors were the underlying processes of treatment or therapist variables or the experienced barriers to treatment participation. Some of the therapist and treatment variables were analyzed by, or could be assigned to, one of the specific groups of barriers as suggested by the Barriers to Treatment Participation Scale (BTPS) (Kazdin et al., 1997b), while some other barriers were not mentioned in this specific scale. For instance, the number of years of experience of the therapist, an ethnic match with the therapist, or treatment modality, were not mentioned in the BTPS but they can certainly interfere with the child or family staying in or dropping out of therapy. The experienced barriers were most often analyzed by looking at the reasons that the parents or children gave as to why they had dropped out of therapy (e.g., by completing the BTPS or another questionnaire at the end of therapy). In other cases, the quality of the therapeutic relationship was rated by an observer during a certain therapy session, or the wait time or the presence of an ethnic match between therapist and patient were determined by the researchers.

Table 2: Dropout predictors and effect sizes

| Predictor | Effectiveness + def 1 | | Effectiveness + def 2 | | Efficacy + def 1 | | Efficacy + def 2 | | Overall | | |
|---|-----------------------|------|-----------------------|---------|------------------|------|------------------|---------|---------|-------|---------|
| | k | n | Mean ES | Mean ES | k | n | Mean ES | Mean ES | k | n | |
| <i>Pre-treatment child characteristics</i> | | | | | | | | | | | |
| Gender (male) | 7 | 1852 | 0.10 | 0.06 | 5 | 6255 | 0.11 | 0.20** | 17 | 7558 | 0.12*** |
| Age (older) | 6 | 1891 | 0.16 | -0.21 | 5 | 2637 | -0.29 | 0.28** | 17 | 4036 | 0.05 |
| Minority status | 8 | 2489 | 0.37*** | 0.33* | 3 | 1680 | 0.39* | 0.25 | 14 | 3520 | 0.36*** |
| Lower acculturation | - | - | - | 0.18 | 1 | 50 | - | - | 1 | 50 | 0.18 |
| Child IQ (lower) | 3 | 487 | 0.45*** | - | - | - | - | - | 3 | 487 | 0.45*** |
| Child academic functioning (lower) | 3 | 660 | 0.16 | 0.35 | 2 | 1016 | - | 0.56** | 6 | 1741 | 0.28* |
| Higher number of diagnoses (th) | 3 | 292 | 0.36* | 0.20*** | 3 | 1330 | 0.08 | 0.27* | 9 | 2057 | 0.22** |
| Diagnosed with externalizing disorder (th) | 9 | 2047 | 0.35*** | 0.45*** | 2 | 1026 | 0.28 | 0.55 | 14 | 3260 | 0.39*** |
| Diagnosed with internalizing disorder (th) | 5 | 1082 | 0.05 | - | - | - | -0.74* | - | 6 | 1104 | -0.04 |
| Diagnosed with adjustment disorder (th) | 1 | 127 | 0.39 | 0.42* | 1 | 448 | - | - | 2 | 575 | 0.41*** |
| Diagnosed with psychotic disorder (th) | 2 | 189 | -0.05 | - | - | - | - | - | 2 | 189 | -0.05 |
| More contact with deviant peers (p) | 3 | 741 | 0.66*** | 0.55* | 1 | 11 | - | - | 4 | 752 | 0.65*** |
| Referral source | 3 | 1670 | 0.23 | 0.30** | 4 | 2199 | 0.19 | 0.48* | 7 | 2918 | 0.35** |
| On (psychotropic) medication | 1 | 127 | 0.43* | - | - | - | - | - | 2 | 149 | 0.40*** |
| More total problems (p & t) | 4 | 1632 | 0.26 | 0.31 | 4 | 5768 | - | 0.10 | 9 | 6535 | 0.28** |
| Lower social functioning (p & t) | 4 | 1709 | 0.38*** | 0.03 | 2 | 1109 | - | - | 5 | 1720 | 0.38*** |
| More internalizing problems (p & t) | 1 | 50 | 0.63** | 0.39 | 1 | 11 | -0.07 | - | 4 | 388 | -0.04 |
| More externalizing problems (p & t) | 5 | 1033 | 0.50*** | 0.32*** | 3 | 1037 | 0.09 | 0.03 | 12 | 2574 | 0.36*** |
| More internalizing problems (s) | 1 | 197 | 0.10 | 0.27 | 1 | 882 | -0.06 | -0.87** | 5 | 1436 | -0.09 |
| More externalizing problems (s) | 3 | 374 | 0.27*** | 0.40** | 2 | 1026 | - | -0.76** | 6 | 1430 | 0.22* |
| Overall child characteristics | | | | | | | | | 29 | 10917 | 0.26*** |
| <i>Pre-treatment parent or family characteristics</i> | | | | | | | | | | | |
| Lower socioeconomic status | 11 | 2730 | 0.42*** | 0.26*** | 5 | 6256 | 0.73* | 0.41*** | 20 | 8393 | 0.38*** |
| Mother's age (younger) | 5 | 1033 | 0.53*** | 0.71* | 1 | 75 | 0.88* | 0.24 | 9 | 1243 | 0.58*** |
| Single parent household (no father) | 9 | 2657 | 0.53** | 0.12*** | 3 | 2055 | 0.38*** | 0.15 | 15 | 4026 | 0.39*** |
| Non-biological head of household | 4 | 1662 | 0.25 | 0.41* | 1 | 1098 | - | - | 4 | 1662 | 0.29** |
| Homelessness | - | - | - | 0.82** | 1 | 882 | - | - | 1 | 882 | 0.82** |
| Higher number of siblings | 2 | 366 | 0.32*** | - | - | - | - | - | 2 | 366 | 0.32*** |
| More parent total problems | 6 | 1082 | 0.20*** | 0.28 | 1 | 11 | 0.06 | 0.37 | 10 | 1452 | 0.20*** |

| | | | | | | | | | | | | | | | |
|---|---|------|---------|-----|------|---------|---|-----|----------|---|-----|---------|----|------|----------|
| More parent internalizing problems | 3 | 403 | 0.08 | 1 | 75 | 0.28 | 2 | 327 | 0.14* | 1 | 147 | 0.36 | 7 | 952 | 0.19*** |
| More parent externalizing problems | 5 | 1032 | 0.39*** | - | - | - | - | - | - | - | - | - | 5 | 1032 | 0.39*** |
| More negative life events | 4 | 853 | 0.27* | 1 | 11 | 0.92 | - | - | - | - | - | - | 5 | 864 | 0.32*** |
| Poor parenting | 5 | 1110 | 0.45*** | 2 | 86 | 0.99* | - | - | - | 2 | 233 | 0.23*** | 9 | 1429 | 0.43*** |
| Mother knowing the diagnosis (vs not knowing) | - | - | - | 1 | 75 | 0.52* | - | - | - | - | - | - | 1 | 75 | 0.52* |
| Parent feeling guilty about child's problems | - | - | - | 1 | 50 | 0.54 | - | - | - | - | - | - | 1 | 50 | 0.54 |
| Parent having low confidence of doing well in parenting | - | - | - | - | - | - | - | - | - | 1 | 84 | 1.02** | 1 | 84 | 1.02** |
| Overall parent and family characteristics | | | | | | | | | | | | | 24 | 9586 | 0.37*** |
| <i>Treatment and therapist factors or treatment participation barriers</i> | | | | | | | | | | | | | | | |
| No ethnic match | 1 | 167 | 0.35** | 2 | 4634 | 0.34*** | - | - | - | 1 | 452 | 0.58** | 4 | 5253 | 0.37*** |
| No gender match | - | - | - | - | - | - | - | - | - | 1 | 571 | 0.24** | 1 | 571 | 0.24** |
| More cancellations or no-shows | 1 | 304 | 0.92** | - | - | - | - | - | - | 1 | 146 | 1.78*** | 2 | 450 | 1.35** |
| More often being late | 1 | 304 | 0.30* | - | - | - | - | - | - | 1 | 146 | 0.39* | 2 | 450 | 0.33*** |
| Longer wait time | 1 | 1098 | 0.01 | 1 | 1098 | 0.08 | 1 | 190 | 0.58** | - | - | - | 2 | 1288 | 0.24 |
| Non-urgent intake | 1 | 1098 | 0.13 | 1 | 1098 | 0.13 | - | - | - | - | - | - | 1 | 1098 | 0.13 |
| BTPS Total barriers (p) | 1 | 242 | 0.88** | 1 | 50 | 0.68** | - | - | - | - | - | - | 2 | 292 | 0.85*** |
| BTPS Total barriers (th) | 1 | 242 | 1.56** | - | - | - | - | - | - | - | - | - | 1 | 242 | 1.56** |
| BTPS More stressors-obstacles (p) | 3 | 765 | 0.58*** | - | - | - | - | - | - | 1 | 147 | 1.13*** | 4 | 912 | 0.70*** |
| BTPS More stressors-obstacles (th) | 2 | 546 | 1.24*** | - | - | - | - | - | - | - | - | - | 2 | 546 | 1.24*** |
| BTPS More treatment demands (p) | 2 | 546 | 0.14** | - | - | - | - | - | - | - | - | - | 2 | 546 | 0.14** |
| BTPS More treatment demands (th) | 2 | 546 | 0.58*** | - | - | - | - | - | - | - | - | - | 2 | 546 | 0.58*** |
| BTPS Lower perceived relevance of treatment (p) | 3 | 592 | 0.80*** | 100 | 50 | 0.77** | 1 | 29 | 1.32*** | 1 | 147 | 0.53** | 5 | 818 | 0.81*** |
| BTPS Lower perceived relevance of treatment (th) | 2 | 546 | 1.55*** | - | - | - | - | - | - | 1 | 147 | 0.42** | 3 | 693 | 1.18*** |
| BTPS Lower therapeutic relationship (p) | 3 | 765 | 0.37*** | - | - | - | - | - | - | 1 | 147 | 0.45** | 4 | 912 | 0.39*** |
| BTPS Lower therapeutic relationship (th) | 2 | 546 | 0.57*** | - | - | - | - | - | - | - | - | - | 2 | 546 | 0.57*** |
| BTPS More critical events (p & th) | 1 | 242 | 0.20 | - | - | - | - | - | - | - | - | - | 1 | 242 | 0.20 |
| Therapist: care. concern. communicative. facilitative. charisma. supportive (p) | 1 | 46 | -0.43** | - | - | - | 2 | 51 | -0.92*** | - | - | - | 2 | 97 | -0.72*** |
| Therapist: directive. controlling. supportive (p) | 1 | 46 | 0.29 | 1 | 50 | 0.53* | 2 | 51 | 0.54*** | - | - | - | 3 | 147 | 0.45*** |

| | | | | | | | | | | | | | | | |
|---|---|----|---------|---|-----|--------|---|----|---------|---|-----|---------|----|------|---------|
| confronting (p) | 1 | 46 | 0.60 | 1 | 144 | 0.35 | 1 | 29 | 0.79** | 1 | 20 | 2.67*** | 3 | 239 | 1.21* |
| Focus of therapy (cognitive, behavioral, interpretative) and treatment modality | | | | | | | | | | | | | | | |
| Therapy: less well organized (p) | 1 | 46 | 1.20*** | - | - | - | 1 | 29 | 1.25*** | - | - | - | 1 | 75 | 1.22*** |
| Expecting the child to recover quickly (p) | - | - | - | 1 | 50 | 0.63** | - | - | - | - | - | - | 1 | 50 | 0.63** |
| Therapist: less years of experience | - | - | - | 1 | 448 | 0.25 | - | - | - | - | - | - | 1 | 448 | 0.25 |
| Unbalanced alliance parent/child (o) | - | - | - | - | - | - | - | - | - | 2 | 120 | 0.78*** | 2 | 120 | 0.78*** |
| Higher unbalanced alliance father-child (o) | - | - | - | - | - | - | - | - | - | 1 | 34 | 4.15*** | 1 | 34 | 4.15*** |
| Higher unbalanced alliance mother-child (o) | - | - | - | - | - | - | - | - | - | 1 | 34 | 2.50*** | 1 | 34 | 2.50*** |
| Lower child alliance (o) | - | - | - | - | - | - | - | - | - | 3 | 161 | 0.41*** | 3 | 161 | 0.41*** |
| Lower parent alliance (o) | - | - | - | - | - | - | - | - | - | 3 | 161 | 0.46*** | 3 | 161 | 0.46*** |
| Reduction in adolescent alliance (o) | - | - | - | - | - | - | - | - | - | 1 | 30 | 1.55*** | 1 | 30 | 1.55*** |
| Reduction in parent alliance (o) | - | - | - | - | - | - | - | - | - | 1 | 30 | 2.19*** | 1 | 30 | 2.19*** |
| Overall treatment and therapist factors | | | | | | | | | | | | | 23 | 9611 | 0.53*** |

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

k = number of studies; n = number of subjects; Mean ES = Mean Effect Size; (p) = parent; (t) = teacher; (s) = self; (th) = therapist; (o) = observer; BTPS = Barriers to Treatment Participation Scale

¹ The overall effect sizes per predictor were indicated bold when 1) the predictors were found in more than one of the four groups of studies and the effect sizes were strong and significant, or 2) the predictors were found in at least 10 studies with a high number of total respondents and the effect sizes were small but significant.

Note: Q statistics and p-values are available upon request.

1) Effectiveness studies using the therapist judgment as criterion for dropout (definition i)

There were seven child pre-treatment factors with significant small effect sizes and three predictors with significant medium to large effect sizes (see table 2). This indicates that these ten child pre-treatment factors were significant dropout predictors, especially higher pretreatment levels of externalizing or internalizing problems according to the parent or teacher (study 2, 4, 5, 3, 8), and having more contact with deviant peers (study 2, 4, 8).

Eight family or parent pre-treatment factors significantly predicted dropout (see table 2). Of these eight variables, six had significant small effect sizes and two had significant medium to large effect sizes. Dropout is thus mainly predicted by a situation with a younger mother, and a single caregiver household where the father is not present (study 1, 2, 3, 4, 5, 8, 10, 11, 23, 24).

Within the third group of predictors (i.e., treatment and therapist factors or treatment participation barriers), there were four predictors with significant small effect sizes, eight predictors with significant medium to large or large effect sizes, and two predictors with very large effect sizes (see table 2). There was one predictor with a significant, but negligible small effect size. Patients with more cancellations of sessions or no-shows, had a significantly higher chance to drop out (study 8). Parents or patients perceiving therapy as less well organized had a significantly higher chance to drop out as well (study 13). Four studies analyzed the reasons that parents or children had given as to why they dropped out of therapy, two of these studies analyzed these reasons according to the barriers-to-treatment-participation model. All the types of experienced barriers in these studies (i.e., experiencing more stressors and obstacles to participate, more treatment demands, lower perceived relevance of treatment, and a lower quality of the relationship with the therapist), were significant predictors for dropout (study 5, 8, 13, 14). Comparison of the effect sizes indicates that therapists were better in judging the experienced barriers of the parent and patient than the parents themselves. In two of these studies that thus focused on the underlying processes of dropout by using the BTPS, it was also found that the experience of barriers was not accounted for by the more static pre-treatment variables, and that among families with a high risk for dropping out (i.e., according to the presence of several predictor pre-treatment variables), the perception of fewer barriers served as a protective factor.

The results of study 6, 12, 16, 17, 18, 19, and 21 are not displayed in the table, because in these studies only multivariate analyses were performed, or the dropouts were asked about their reasons for dropout but no information on the completer group was given, and therefore

effect sizes could not be calculated. In these studies the following reasons for dropout were given: the child did not want to come to treatment, parents did not think that the child had a psychiatric problem, or parents believed there was no problem at all. Also, having moderate expectancies of the results of therapy (as opposed to very high or very low expectancies), were risk factors for dropout. Several studies that studied the therapeutic alliance between therapist and parent or therapist and patient (and measured this in another way than with the BTPS), found that showing less alliance and bonding to the therapist or problems in the therapeutic relationship were risk factors for dropping out, but only for parent-therapist alliance and not for youth-therapist alliance. An ethnic match between the parent and the therapist was associated with continuation, and parents' disagreement with the therapist's opinion on for instance the problem that should be treated, also predicted dropout.

2) Effectiveness studies using a preset number of session as criterion for dropout (definition ii)

Within the first group of pre-treatment child predictors, eight significant predictors of dropout were found (see table 2), but only one predictor had a significant medium to large effect size. Having more contact with deviant peers was thus the most important dropout predictor in this group of studies (study 29).

With respect to family factors, four predictors with significant medium to large or large effect sizes were found. Three other predictors were also significant, but the effect sizes were small or even negligible (see table 2). Having a younger mother (study 28) and being homeless (study 31) significantly predicted dropout. In only one study the parent's knowledge about the diagnosis of the child was studied. In this study, parents that knew the diagnosis, were compared to parents not knowing the diagnoses, and it appeared that this last group had a lower chance to drop out of therapy (study 28). Poor parenting (i.e., more critical comments, more expressed negative emotions, and more hostility towards the child etc.) was a significant risk factor for dropout (study 28, 29) as well.

Within the third group of predictors, the experience of treatment participation barriers (in particular a lower perceived relevance of treatment) was a significant risk factor for dropping out, and that the perception of fewer barriers served as a protective factor (study 27). In addition, expecting the child to recover quickly and the therapist being directive, controlling, and confronting, were significant dropout predictors (study 27). One other factor was significant (i.e., an absence of an ethnic match between therapist and patient) but its effect size was small.

3) Efficacy studies using the therapist judgment criterion for dropout (definition i)

Within this third group of studies, one significant predictor had a small effect size and only one other predictor was significant and had a medium to large effect size (see table 2). This factor predicted continuation though, i.e., the child being diagnosed with an internalizing disorder was a significant predictor for therapy continuation (study 34).

With respect to parent and family factors, a significant relationship (and a medium to large effect size) between lower socioeconomic status and dropout was found (study 13, 33, 34). Also, having a younger mother was a significant dropout predictor with a large effect size (study 13, 34). Two other predictors were significant but had small or negligible effect sizes (see table 2).

Within the group of treatment and therapist factors or treatment participation barriers, all the six significant predictors had medium to large, large or even very large effect sizes (see table 2). Thus, a longer wait time prior to therapy and perceiving the therapy as less well organized were significant risk factors for dropout (study 13, 32). According to one study on treatment participation barriers, a lower perceived relevance of treatment, was a significant dropout predictor also (study 13). In addition, the therapist being directive, controlling, and confronting predicted dropout, while the therapist showing care and concern, and being communicative and supportive, enhanced the chance for the patient to continue therapy (study 13, 34). The focus of therapy (i.e., whether it was cognitive, behavioral or interpretative) also significantly enhanced or reduced the chance to drop out of therapy (study 13).

4) Efficacy studies using a preset number of sessions as criterion for dropout (definition ii)

Within this group of studies, three significant child pre-treatment variables had a medium to large or large effect size, and four predictors had a small effect size (see table 2). Having more internalizing or externalizing disorders according to the patient himself predicted continuation of therapy (study 43). The child having lower academic functioning significantly predicted dropout (study 37).

With respect to pre-treatment family factors, only one predictor had a large effect size. The effect sizes of the other two significant predictors were small (see table 2). The parent having little confidence of doing well in treatment (study 46) was thus the most important family or parent dropout predictor in this group of studies.

Within the third group of dropout predictors, ten of the sixteen significant predictors had medium to large or (very) large effect sizes. Factors such as more cancellations of sessions (study 36) and the absence of an ethnic match with the therapist, predicted dropout (study 39). Again, several experienced barriers to treatment significantly predicted dropout and had medium to large or large effect sizes: more stressors and obstacles according to the parent, and a lower perceived relevance of treatment according to the parent (study 36). A very large effect size was found for the variable focus of therapy (study 48). Several studies focused on the strength of the therapeutic alliance as measured by an observer (study 38, 41, 43, 45). All of these predictors were significant, and most had medium to large or (very) large effect sizes. A reduction in parent-therapist alliance or patient-therapist alliance was found to be an important predictor of dropout. The largest effect sizes were found for an unbalanced alliance (i.e., parent-therapist alliance minus adolescent-therapist alliance) between the father and the child, and in a lesser extend for an unbalanced alliance between the mother and the child.

The results of study 44 and 47 are not displayed in the table, because in these studies only multivariate analyses were done. In study 47 it was found that low ratings of therapeutic alliance, working alliance, and client involvement variables were predictive of treatment dropout (study 47). Also, more immediate distress and symptom severity measured just before termination (as opposed to symptom severity measured pretreatment) (study 44), predicted dropout.

Conclusion and discussion

The aim of this meta-analytic review was to present an overview of the results of studies regarding premature termination in child and adolescent therapy, and to offer explanations for the wide variety in dropout percentages and dropout predictors across these studies. In advance we assumed that two main factors were plausible contributors to the inconsistency in findings: study design and dropout definition. We therefore chose to structure our meta-analytic review along these two perspectives. We differentiated between studies with efficacy and effectiveness designs (first perspective), and between studies with various dropout definitions (second perspective). First, we compared the dropout percentages within the first perspective, i.e., we made comparisons between effectiveness and efficacy studies. Within the second perspective we compared the dropout percentages of studies in which the definition of dropout was based on the opinion of the therapist (definition i) with studies that used the number of completed

sessions as the criterion for dropout (definition ii). We thereafter compared the dropout predictors between the various studies for which we decided to use a combination of both perspectives. This resulted in four sections: 1) effectiveness studies using definition (i), 2) effectiveness studies using definition (ii), 3) efficacy studies using definition (i), and 4) efficacy studies using definition (ii). The dropout predictors were divided in three groups: pre-treatment child characteristics, pre-treatment parent or family characteristics, and therapist and treatment factors or treatment participation barriers.

With respect to dropout percentages, the first perspective shows that percentages in the efficacy studies were much lower than the percentages in the effectiveness studies. This indicates that one of the causes for the large variety in dropout percentages can be attributed to the study design. This can be explained by the fact that in efficacy studies patients are often included after strict selection procedures and therefore might be more motivated to complete the treatment. The percentage of patients that will drop out is thus partly influenced by these selection procedures. Also, in efficacy studies, the treatment itself tends to follow more strict protocols (with respect to both contents and length), than treatment in effectiveness studies. This might aid patients to complete therapy because they know what to expect. This last aspect can be used to prevent dropout in general mental health care (effectiveness studies) by offering more strict treatment protocols. Because in effectiveness settings all potential patients that need help should be able to receive it, it is not desirable to work with selection criteria like in efficacy studies.

The second perspective shows that some differences were found in dropout percentages between the studies within the two groups of dropout definitions. Both groups of definitions were used in efficacy as well as in effectiveness studies. However, definitions that used the opinion of the therapist as the most important criterion, were found more often in effectiveness studies, while definitions that used a prefixed number of completed sessions as criterion, were more common in efficacy studies that often have a pre-ordained length of time and number of sessions.

Within both groups of definitions, the dropout percentages showed large variations between studies. With respect to the group of studies using the predetermined number of sessions criterion, dropout percentages were understandably higher when the number of sessions that had to be completed was set to be higher. In effectiveness studies, the dropout percentages were lower when the therapist's opinion definition was used, rather than when the

number of sessions definition was used (i.e., 45,3% vs. 59,8%). Interestingly, Warnick et al. (Warnick et al., 2012) compared dropout percentages between three conditions based on different definitions in an effectiveness study using the same group of respondents. The results from this study underscore our conclusion that dropout percentages are lower when dropout is defined according to the opinion of the therapist than when dropout is defined according to completing a certain number of sessions or the last scheduled session. In efficacy studies on the contrary, the dropout percentages were similar for studies using definition (i) or (ii) (i.e., 26,4% vs. 29,2%). An explanation might be that because the patients are more motivated in efficacy trials, dropout percentages are lower anyway and the dropout definition has less effect on these percentages. Also, in these trials, the therapist definition and the number of sessions definition will resemble each other more, because for instance, therapists work with strict protocols and will indicate that someone is a dropout when the protocol (e.g., completing a certain number of sessions) is not followed.

The two perspectives were combined into four sections to compare the study results on three major groups of dropout predictors and effect sizes for the predictors were calculated. The first two groups of predictors were pre-treatment variables. These were static variables: Child factors, and family or parent factors. Some child variables were only analyzed within one or two groups of studies which makes it difficult to compare the results. Most variables however, were analyzed within three or four groups of studies. The predictive value of some of the child characteristics was clearly higher within one group of studies than in the other groups. But most of the effect sizes did not reach significance or the effect sizes were only small or negligible. The overall effect sizes indicate that fourteen pre-treatment child variables are significant predictors in general. Only one predictor (more contact with deviant peers) had a medium to large effect size. The other effect sizes were small or even negligible, but three of these variables were analyzed within a substantial number of studies (i.e., more than ten), with a large number of respondents, and within all four groups of studies, and had significant (but small) effect sizes. These predictors for dropout were ethnic minority status, being diagnosed with an externalizing disorder, and having more externalizing problems according to the parent or teacher. Although this last variable was clearly a less strong predictor in the efficacy studies than in the effectiveness studies.

With respect to the pre-treatment parent or family factors, thirteen were found to be significant overall dropout predictors. Four of these predictors also had medium to large or large

effect sizes, i.e., having a younger mother, being homeless, the mother not knowing the diagnosis, and the parent having low confidence of doing well in treatment. The last three predictors were all only found in one study though, so in general, the results indicated that having a younger mother was the most important overall dropout predictor. A lower socioeconomic status, living in a single parent household with no father, and the parent having more (psychiatric) problems in general, were three other important variables (i.e., the overall effect sizes were significant (but small), they were analyzed in ten studies or more across all four groups of studies, and for a high number of respondents). The parent having more problems was clearly a less strong predictor in the efficacy studies with definition (1) than in the other three groups, while living in a single parent household was clearly a less strong predictor in studies with definition (ii) than in the other two groups.

Of the treatment and therapist variables or treatment participation barriers, twenty-six were significant overall dropout predictors. Eighteen predictors also had medium to large or (very) large effect sizes. These were mainly factors related to the several scales of the BTPS, and factors related to the relationship with the therapist (measured in other ways than by the BTPS). More specifically, a reduction in this relationship or a difference in the experience of this relationship between the child and the parent, significantly predicted dropout. The most important barriers, were a lower perceived relevance of treatment according to the parent and therapist relationship variables. Unfortunately, none of the variables were analyzed in more than five studies and only two variables were analyzed in all four groups of studies. This makes it harder to compare the results with respect to the influence of study design and dropout definition. Some of the studies in this third group analyzed the barriers according to the BTPS and as possible moderating variables as to why some high or low risk families (i.e., they were at high or low risk for dropping out because of the presence or absence of certain pre-treatment predictor variables), ultimately did or did not drop out. It was found that this moderating effect was indeed present, i.e., the experience of barriers can increase the risk for dropping out, while not experiencing barriers can reduce the risk for dropping out.

In general, from our meta-analytic review we can conclude that one of the reasons that dropout percentages differ across studies can be found in the variation of study designs being used. Within effectiveness studies, dropout percentages seem to be influenced by the dropout definition that is used as well. The results on some of the dropout predictors also differed by study design or dropout definition, although this conclusion should be drawn with caution

because most of the effect sizes were small or non-significant. There were not enough studies available to compare to the influence of study design and dropout definition on the treatment and therapist variables. The very small differences found between study designs might indicate that the distinction between efficacy and effectiveness research is not as strict as we expected, and that predictors found in efficacy studies might also account for effectiveness studies and vice versa. Indeed, La Greca et al. (2009) already stated that treatment research is more accurately viewed as varying along a continuum of internal and external validity, and that it is the continuum between (or blending of) efficacy/internal validity and effectiveness/external validity that will ultimately lead to research that informs practice, and practice that informs research. The present review treats efficacy and effectiveness as categorical (and not continuous) variables though, because most research is still done in efficacy or effectiveness settings and the goal was to analyze whether this affected the outcomes of dropout studies. We agree with La Greca et al. (2009) that research should move beyond efficacy and effectiveness and that research and practice will inform each other, but the differences in dropout percentages (and in some dropout predictors) between efficacy and effectiveness settings indicate that treatments and patient groups in the one setting still structurally differ from the treatments and patient groups in the other setting.

Study design and dropout definition indeed seemed to influence the strength and significance of some of the dropout predictors. This is similar to the results of the study of Warnick et al. (2012) based on one group of patients where dropout percentages and (some of the) dropout predictors varied for three different dropout definitions. Not many structural differences in dropout predictors were found though, but several variables seem to be robust overall predictors for dropout (i.e., the predictors were found in more than one of the four groups of studies and the overall effect sizes were significant and strong, or the effect sizes were significant and small but the predictors were found in a high number of studies with a high number of respondent). These predictors are: the child having more contact with deviant peers, ethnic minority status, being diagnosed with an externalizing disorder, having more externalizing problems according to the parent or teacher, a lower socioeconomic status, having a younger mother, living in a single parent household with no father, the parent having more (psychiatric) problems in general, poor parenting, experiencing more treatment participation barriers in general, experiencing a lower quality of the therapeutic relationship, having more cancellations or no-shows, a lower perceived relevance of treatment, experiencing more stressors-obstacles,

the therapist being directive, controlling and confronting, the therapist not showing care and concern, and the focus of therapy.

In each group of predictors, the overall effect sizes were measured for at least 23 studies and at least 9500 respondents and it is therefore warranted to compare the three overall effect sizes. This indicated that the treatment and therapist variables were overall stronger dropout predictors (i.e., its overall effect size was medium to large according to the rules of Cohen) than the pre-treatment child and family or parent variables (i.e., these overall effect sizes were small according to Cohen), which is in accordance with the theory of barriers to treatment participation. Indeed, in this theory it is proposed that families experience multiple barriers interfering with participating in treatment and that these experiences increase the risk for dropping out. Important practical implications for reducing therapy dropout can be deduced from our findings and this theory. It is hard to influence or change the static pre-treatment child and parent or family characteristics, but it is possible to influence treatment and therapist variables or experienced participation barriers. For instance, when the parent or patient experiences little relevance of treatment, the therapist could reflect on this and change some aspects of the therapy in order to make it more relevant for the patient and parent and reduce the chance of them dropping out. Or there could be a change in therapists when the patient or parent experiences a bad relationship with the present therapist. Our finding that treatment and therapist variables are the most important dropout predictors thus implicates that there are ways to reduce the chance of dropping out in the future.

Limitations of this meta-analytic review

The first limitation is that we only included peer-reviewed published studies in the English language. Studies published in other languages could have provided us with information about therapy with youth in countries outside the US and England. We also did not report on therapy in inpatient settings, because this was beyond our scope. Our results can therefore not be generalized to these types of settings nor can they be generalized to other settings such as forensic treatment, alcohol or drug treatment, internet therapy etcetera.

Second, the youth population that participated in the included studies was rather heterogeneous. For instance, some of the studies specifically focused on youth with anorexia nervosa, youth with conduct disorders, or youth with anxiety disorders, while some other studies focused on youth with a wide range of problems without given specifications. In

addition, the type of treatment differed per study as well. Some studies focused on family therapy, or social skills training, or exposure-based treatment, or did not give any specification for the type of treatment that was investigated. These variations in study population or in type of treatment could have influenced some of the differences or lack of differences found in our review.

Third, we did not include articles on methods and strategies to reduce dropout and enhance therapy attendance and adherence. Much work has already been done in this area. Our goal was to specifically focus on dropout percentages and dropout predictors in order to give an explanation for the wide variety in results. Focusing on studies that analyzed methods and strategies to reduce dropout is an important next step, but it was beyond the scope of this review. Several authors have already reviewed the studies on strategies for reducing dropout in psychotherapy with adults (Ogrodniczuk, Joyce, & Piper, 2005; Reis & Brown, 1999). In the area of child therapy, studies that focused on enhancing therapy engagement of the parents or of the whole family also have been reviewed (Gopalan et al., 2010; McKay & Bannon Jr., 2004; Morrissey-Kane & Prinz, 1999; Nock & Ferriter, 2005). However, contrary to child patients, adolescent patients decide for themselves whether to continue therapy in stead of the parents, and we were not able to find articles on strategies focusing on enhancing engagement of adolescent patients.

Future directions

It is useful to study pre-treatment variables and create a profile of the types of patients that have a higher risk of dropout. Based on these risk profiles, strategies to enhance engagement can be introduced from the start of therapy. Our review revealed that there are several robust pre-treatment variables that predict dropout. These pre-treatment variables should be studied together with the barriers experienced during treatment. Only then will we get a complete picture on the profile of who is at risk of dropping out, and of which barriers should be diminished. Studying the barriers experienced during treatment is useful because these are the variables that can be changed while it is hard to influence or change the static pre-treatment child and parent or family characteristics. Our finding that treatment and therapist variables are the most important dropout predictors thus implicates that there are ways to reduce dropping out in the future. For instance, a therapist can ask the parents at several points during the treatment whether they think that their child still needs the treatment, or whether they think

the relationship with the therapist is adequate. Analyzing the treatment participation barriers according to the Barriers to Treatment Participation Scale (BTPS) (Kazdin et al., 1997b) seems to be sufficient. Most overall significant predictors in this category were covered by this questionnaire (e.g., experiencing a lower quality of the therapeutic relationship, a lower perceived relevance of treatment). Some overall significant predictors (e.g., having more cancellations or no-shows, the focus of therapy), or predictors that had significant effect sizes in a little amount of studies (e.g., ethnic match, an unbalanced therapist alliance between parent and child) were not analyzed by the BTPS. Therefore it is advisable to include these possible predictors in future research and then extend the BTPS with scales on the topics that appear to be overall significant. Such an extended version of the BTPS can be used by YMHC institutions to study their dropouts and thereafter reduce the dropout rates. Another way of dropout reduction (in general mental health care) might be the introduction of more strict treatment protocols. In efficacy studies where the treatment tends to follow more strict protocols (with respect to both contents and length), the dropout percentages were clearly lower than in effectiveness studies. This might aid patients to complete therapy because they know what to expect. The study of Luk et al. (2001) supports this line of thinking; parents that experienced therapy as less organized had a higher chance at dropout.

With respect to one important treatment participation barrier, i.e., the quality of the relationship, most studies on the therapeutic relationship only investigated the parents' perceptions and not the child's perception. Only a few studies compared the quality of the relationship between the therapist and the patient with the quality of the relationship between the therapist and the parents and its influence on dropout. Different instruments were used to measure the therapeutic alliance. In all effectiveness studies, the parents and in one study, the child) rated the quality of the alliance on a short questionnaire after therapy had ended (e.g., on a subscale of the BTPS or by another questionnaire). In all efficacy studies where the therapeutic alliance was studied, an observer rated the quality of the alliance using video tapes of one of the first sessions. It is unclear, whether observers can correctly indicate what the child or parent actually thinks of the therapeutic relationship, or whether parents can recall afterwards what they thought of the therapeutic relationship during therapy. It is therefore advisable to use an instrument that gives session-to-session information on the therapeutic relationship, such as the Session Rating Scale (B.L.; Duncan et al., 2003; S. D. Miller & Duncan, 2004; S. D. Miller, Duncan, Brown, Sorrell, & Chalk, 2006), in the future. In addition, it is advisable to use both the parent

version and the child version of this or a similar instrument, in order to get both the child's or adolescent's and the parent's perspective on the quality of the therapeutic relationship. It appears that in general, there is a lack of studies on the child's perception of therapy. In therapy with children, the parent might indeed be the one who decides whether to continue therapy. But in therapy with adolescents, especially the older ones, parents are often only involved in certain elements of therapy or are not involved at all. As follows, in these cases adolescents might be the ones who decide whether to continue therapy. As our meta-analytic review shows, the adolescent patient is hardly used as a potential informant. We therefore advise that there is a focus on adolescent patients in therapy dropout studies in the future.

With respect to the dropout definition being used, it is really important for researchers to be aware of the impact of the chosen definition. Indeed, the results on the barriers experienced during treatment indicate that parents might have different ideas to the therapist on whether their child has already benefited enough from therapy. For instance, when the parent thinks the child does not need therapy anymore, but the therapist thinks that additional therapy is needed, it is uncertain whether these patients should be counted as dropouts or completers. In most studies until now, these patients were seen as dropouts because the opinion of the therapist was used as the criterion in the dropout definition. It might therefore be interesting to use both the opinion of the therapist, as well as that of the parent and adolescent patient to define dropout in future studies. When this is done in combination with an instrument to measure the increase or decrease in psychiatric problems, or it is taken into account whether therapy goals are reached, a more accurate assessment of who is a 'real' dropout and who is not will be created.

CHAPTER 6

A review on treatment-dropout in mental health care with ethnic minority youth

Transcultural Psychiatry, in revision

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Abstract

Background A large proportion of the treatments in youth mental health care is prematurely terminated (dropout). It is important to gain knowledge of the determinants of dropout because it can have severe consequences. Because ethnic minority youth are treated less often than ethnic majority youth, it is important to analyse the chances for dropout for ethnic minorities, and which dropout determinants are ethnic specific.

Aims The aim of this review was to provide an overview of the findings from empirical studies on dropout of child and adolescent therapy with ethnic minorities, and to expand the knowledge this subject.

Methods An extensive literature search was carried out to locate journal articles on the subject. In addition, the articles located were inspected for further relevant references, and these articles were then also studied. Several inclusion and exclusion criteria were used. A total of 27 studies were included.

Results The results showed that first, it depends on the specific ethnic background whether ethnic minority patients have a higher chance to drop out than ethnic majority patients. And second, several differences in dropout predictors between the ethnic groups were found.

Conclusions In spite of the diverse results found in the studies, several limitations of the review, and the consideration that several important issues are lacking in the conducted research until now, some clinical recommendations can be given. The review indicates that in order to prevent dropout, therapists should pay attention to variables as ethnic background, therapist-patient ethnic match, and quality of the therapeutic relationship.

Key words: review; dropout; youth mental health care; ethnic minority; psychotherapy; children and adolescents.

Introduction

An estimated seven percent of the children and adolescents in western societies are impaired in their functioning to such a degree that psychiatric treatment is recommended (Friedman, Katz-Levey, Manderschied, & Sondheimer, 1996; Rutter & Stevenson, 2008). This number appears to be quite similar for all ethnic groups (Nikapota & Rutter, 2008). However, in western societies only about 2.5 percent of the young population finds its way to youth mental health care (De Haan, Boon, Vermeiren, & De Jong, 2012; Meltzer, Gatward, Goodman, & Ford, 2000; Zachrisson, Rödje, & Mykletun, 2006). Where ethnic minority youth are concerned, the percentage that is treated in youth mental health care is even smaller. Indeed, only 1.5% of the minority youth finds its way to youth mental health care, while 3.5% of the ethnic majority youth does (Copeland, 2006; De Haan, et al., 2012; Garland, et al., 2000; Kodjo & Auinger, 2004). For the children and adolescents that do receive treatment, several studies have shown that an estimated 28% up to 75% prematurely terminates psychotherapy (Baruch, Vrouva, & Fearon, 2009; De Haan, Boon, De Jong, Hoeve, & Vermeiren, 2013; Luk, et al., 2001; Midgley & Navridi, 2006). Psychiatric treatment increases the likelihood that the psychiatric problems get solved, and when children drop out of psychiatric treatment, their disorders might persist or worsen later in life (Dulmus & Wodarski, 1996; Lochman & Salekin, 2003; Moffitt, Caspi, Harrington, & Milne, 2002; Reis & Brown, 1999; Woodward & Fergusson, 2001). Because of the negative consequences of untreated disorders and dropout from child mental health services, it is important to obtain knowledge about the determinants of dropout in order to prevent it. Considering the fact that ethnic minority youth are treated less often for their mental health problems than ethnic majority youth, it is all the more important to examine whether dropout is just as high or higher among ethnic minorities compared to ethnic majority youth, and which dropout determinants are ethnic specific. Based on these considerations, we did a literature review on what is known about dropout in therapy with ethnic minority youth.

In contrast to adults, in most cases children do not seek treatment for themselves. Motivation for entering and remaining in treatment largely depends on others, like parents, teachers or referral agencies. Frequently, parents participate in their child's treatment and consequently, parent and family characteristics play a central role in continuation or termination of treatment (Armbruster & Kazdin, 1994). From a recent meta-analysis on dropout in youth mental health care, it became clear that study design and dropout definition influence the results on dropout predictors and dropout percentages (De Haan, et al., 2013). Several of the

included dropout studies in this review specifically focused on dropout in therapy with ethnic minority children, or they described the ethnic background of their respondent group. However, not all of these studies reported on ethnic differences in dropout determinants though, i.e., when describing the results, they did not take ethnic background into account (e.g., Gilbert *et al.*, 1994, Lock *et al.*, 2006, Jensen-Doss and Weisz, 2008, Johnson *et al.*, 2009). This meta-analysis showed that both ethnic minority status and socioeconomic status were risk factors for dropping out in some but not in all cases (De Haan, et al., 2013). Because ethnic background and socioeconomic status are often correlated (i.e., ethnic minorities often have a lower SES than ethnic majority youths) (CBS, 2009; Chen, Martin, & Matthews, 2006; Saxena, Eliahoo, & Majeed, 2002), and because both are seen as important interrelated variables causing ethnic differences in mental health care utilization (Garland, et al., 2005; Zimmerman, 2005), it is important to focus specifically on SES and on ethnic background.

The aim of this present literature review is to provide an overview of the findings from empirical studies on premature termination in child and adolescent therapy with ethnic minorities, and to expand the knowledge on psychotherapy dropout by specifically focusing on the ethnic minority status aspect in the studies included in our former meta-analysis. Specifically, information on dropout predictors (i.e., whether dropout determinants are ethnic specific) and dropout percentages (i.e., whether dropout is just as high or higher among ethnic minority youth compared to their ethnic majority peers) will be gathered.

Method

Literature search

An extensive search was carried out in PsycINFO, MEDLINE and Psychology and Behavioral Science Collection databases to locate journal articles on the subject of premature termination of therapy with children and adolescents. In addition, the articles located were inspected for further relevant references, and these relevant articles were then also studied. The following key-words were used in the search:

- (*premature termination AND therapy*) OR (*premature termination AND psychotherapy*) OR (*premature termination AND treatment*) AND (*ethnicity OR ethnic background OR minority background*)
- (*dropout AND therapy*) OR (*dropout AND psychotherapy*) OR (*dropout AND treatment*) AND (*ethnicity OR ethnic background OR minority background*)

- (*drop(-)out AND therapy*) OR (*drop(-)out AND psychotherapy*) OR (*drop(-)out AND treatment*) AND (*ethnicity OR ethnic background OR minority background*)

- (*attrition AND therapy*) OR (*attrition AND psychotherapy*) OR (*attrition AND treatment*) AND (*ethnicity OR ethnic background OR minority background*)

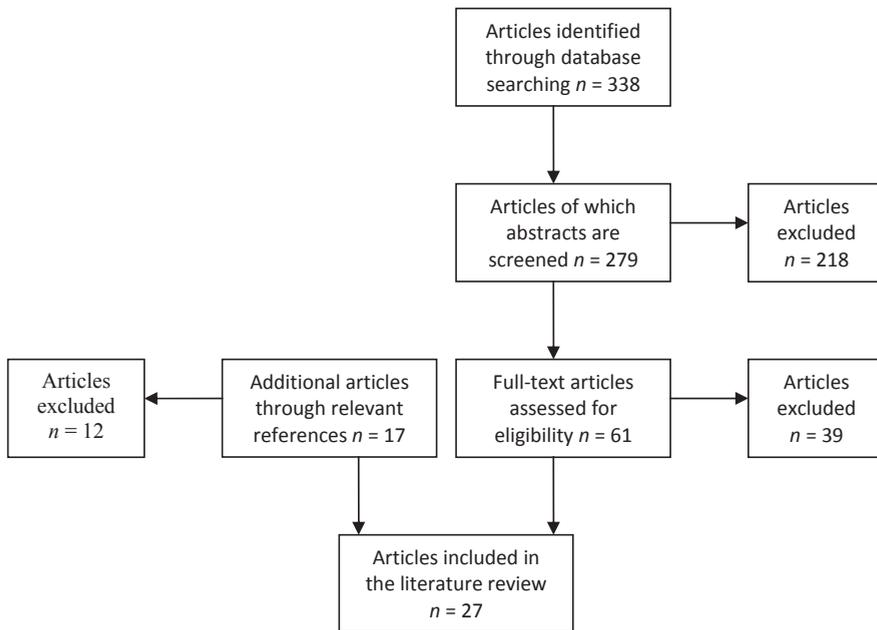
- (*unilateral termination AND therapy*) OR (*unilateral termination AND psychotherapy*) OR (*unilateral termination AND treatment*) AND (*ethnicity OR ethnic background OR minority background*)

The option of 'remove duplicates' was chosen and the following limitations were added: The search results were limited to 'Peer Reviewed' articles and articles published between 'Publication Date' 1994 – 2013, 'Age': *Childhood (birth – 12 yrs)*, *All Child (0-18 yrs)*, *Adolescence (13-18 yrs)*, *School Age (6-12 yrs)*, *Preschool Age (2-5 yrs)*, *Child: 6-12 yrs*, *Adolescent: 13-18 yrs*.

For some of the articles found by this initial search, it was directly clear that they were not eligible (e.g., based on the title or the first few words of the abstract). Of the other articles the abstracts were independently studied. Of the potential interesting articles, the whole full-text versions were studied by the first author to select the final articles based on the inclusion and exclusion criteria. The second author independently checked whether the selected articles indeed met the inclusion criteria. Figure 1 represents a flow diagram of the results of our literature research.

The inclusion criteria were: (a) peer-reviewed articles in the English language, (b) the studies had to be done in outpatient settings (not inpatient settings), (c) the studies had to focus on psychiatric treatment in mental health services (e.g., not only medication management), (d) the age of the subjects was between 0 and 20 years, (e) the ethnic background of the patients had to be taken into account, and (f) at least one of the included ethnic groups of patients had to be an ethnic minority in the country studied. Excluded were (a) studies limited to the treatment of preventing recidivism (i.e., for sexual abusers, alcohol/drug abusers, forensic clients etc.), (b) studies limited to medication management therapy (i.e., where dropout is defined as not adhering to the prescribed medication), (c) theoretical and qualitative articles, (d) studies that only focused on retention or number of visits without defining the status of termination (i.e., it was unclear whether someone was a dropout or a completer), studies where the subjects were mandated to treatment (e.g., forensic settings), and (e) studies that did describe the ethnic background of their patients, but ethnic background was not a variable that was reported in the results or the discussion.

Figure 1: Flow diagram of the literature search



Results

Twenty-seven studies were included in our review. See table 1 for details on the studies (i.e., number and age of subjects, country where study was conducted, definition of socioeconomic status, definition of ethnic minority status, definition of dropout, treatment type, type of mental health problems, dropout predictors, and dropout rate). With respect to dropout percentages, the studies could be divided into four groups. The first group consisted of five studies that reported on different dropout percentage between ethnic groups. The second group consisted of two studies that only included ethnic minority children (i.e., Mexican Americans in study 11 and various ethnic minority groups in study 27) and analyzed whether the outcomes were different from the outcomes for ethnic majority children in other studies. The third group consisted of seventeen studies that did not report on different dropout percentages between ethnic groups, they rather analyzed whether ethnic minority background was a predictor of dropout, i.e., whether ethnic minority youth had a higher chance to drop out than their ethnic majority peers. The last group consisted of three studies that did not report on dropout

percentages per ethnic group, or whether ethnic minority status was a risk factor. These studies did report on other ethnicity-related variables though (e.g., an ethnic match between patient and therapist). These last three studies were therefore not described in the paragraph on dropout percentages, but they were described in the paragraph on dropout predictors.

With respect to dropout predictors, nineteen of the twenty-seven studies took ethnic background into account when analyzing and describing these predictors (study 1, 2, 3, 4, 5, 6, 9, 10, 11, 13, 14, 15, 16, 19, 21, 23, 25, 26, 27). These studies were described in the paragraph on dropout predictors. Three main dropout predictors were studied here: socioeconomic status, an ethnic match between the patient and the therapist, and the therapeutic relationship.

Table 1: Description of the included studies

| Study | N (age) + Country of study | Definition of SES + distribution | Definition of minority status + Sample size per ethnic group | Treatment type + Type of mental health problems | Definition of drop-out | Dropout predictors | Dropout % |
|--|----------------------------|---|--|--|--|--|---|
| Group 1: studies reporting on different dropout percentages between ethnic groups | | | | | | | |
| 2. Kazdin & Mazurick (1994) | 257 (4-13) United States | Hollingshead socioeconomic class (from low to high) 30.7% class 5, 32.5% class 4, 24.2% class 3, 7.8% class 2, 4.8% class 1 | Definition by race 40.1% minority (35.4% Black, 3.5% Hispanic, 0.8% Asian, 0.4% mixed) | Cognitive problem-solving skills training and Parent management training | Premature termination on the basis of a unilateral decision by parent or family, while inadvisable and against advice of clinical team. Early d.o.: completed 6 or fewer treatment weeks (1 session per week), late d.o.: termination from 7 to 14 weeks of treatment. | Predictors early d.o.: more severe child impairment in relation to conduct disorder and delinquency, academic dysfunction, and social behavior, younger single parents, minority background, lower socioeconomic status, greater family stress and greater life events. Predictors late d.o.: younger mother, child antisocial history, lower IQ, nonbiological head of household, poor adaptive functioning at school. | Early d.o. = 29.2% Late d.o. = 18.3% d.o. White = 37.7% d.o. Black = 63.7% d.o. other = 50% |
| 5. Kazdin et al. (1995) | 279 (3-13) United States | Hollingshead socioeconomic class 27.9% class 5, 33.3% class 4, 25.2% class 3, 8.1% class 2, 5.4% class 1 | Self-identification 64.5% White, 35.5% Black | Cognitive problem-solving skills training, Parent management training | Premature termination based on the unilateral decision by parent or family, while inadvisable and against advice of clinical team. | Predictors White children: socioeconomic disadvantage, younger mother, single-parent family, high parental stress, parental psychopathology, child antisocial behavior, overall child dysfunction, lower child academic functioning, adverse child rearing practices. Predictors Black children: high parental stress, child antisocial behavior, lower child academic functioning, adverse child rearing practices. | d.o. Black = 59.6% d.o. White = 41.7% |
| 6. Kazdin et al. (1997) | 242 (3-14) United States | Hollingshead socioeconomic class 25.1 class 5, 31.5% class 4, 23.4% class 3, 11.5% | Self-identification 63.6% White, 26.9% African-American, 6.6% | Cognitive problem-solving skills training, Parent management | Premature termination based on the unilateral decision by parent or family, while inadvisable and against advice of clinical team. It occurred when parent noted | Predictors: socioeconomic disadvantage, ethnic minority background, single parent, younger parent, harsh child-rearing practices, parent history of | d.o. = 39.7% d.o. White = 32.9% d.o. ethnic minority = |

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|---|-------------------------------|--|---|---|---|---|
| class 2, 8.5% class 1 | Hispanic-American, 2.9% other | training Oppositional, aggressive, antisocial behavior disorders | explicitly that they did not wish to continue or when they did not come for at least 3 consecutive weeks. | antisocial behavior, child history of greater antisocial symptoms, higher levels of perceived barriers to treatment (especially among high risk cases), lower perceived relevance of treatment. | 52.4% | |
| 12. Lamb et al. (2002) | 444 (6-12) England | No information | Country of origin 28.8% Bangladeshi, 71.2% native English | No information on treatment type All types of mental health disorders | Early and late d.o. both groups = 36.4% Predictors non-attendance: referral by health visitors (as opposed to referral by the hospital) English natives = 26.9% | |
| 21. Flicker et al. (2008) | 86 (13-19) United States | Hollingshead socioeconomic status No information on distribution | Self-identification 50% Caucasian, 50% Hispanic | Functional family therapy Substance abuse or dependence disorders | Predictors Hispanic families: d.o. = 41.9% unbalanced alliances measured during the first session (i.e., parent-therapist alliance minus adolescent-therapist alliance) = 48.8% d.o. No predictors Caucasian families: Caucasian = 34.9% unbalanced alliances No predictors in general: socioeconomic status, ethnic match with therapist | |
| Group 2: studies only including ethnic minority children | | | | | | |
| 11. McCabe (2002) | 50 (6-12) United States | Parent income and education The sample was largely low income and there was an average of less than high school education | Self-identification All Mexican-American | No information on treatment type All types of mental health disorders | Parents who did not return after completing the intake or one session beyond the intake. | Predictors: lower level of education, parents high on family/self-reliance, reliance on discipline, more perceived barriers to treatment at intake, expecting the child to recover quickly. Ethnic match with the therapist, lower levels of income, acculturation, and perceptions of stigma were not related to dropout. d.o. = 29% |
| 27. De Haan et al. (2014) | 70 (6-20) The Netherlands | Not taken into account | Birth country of patient and both parents: 31.4% Turkish, 21.4% | Several treatment types All types of mental health disorders | A patient was classified as a 'dropout' when the patient prematurely terminated therapy but the therapist did not agree on this termination (i.e., according to himself) | Predictors: a decreasing quality of the therapeutic relationship during the course of therapy (as judged by the child/adolescent patient himself) d.o. = 35.7% |

| | | | | the therapist the therapy should have been continued). | | |
|---|----------------------------|--|--|---|---|---|
| Group 3: studies not reporting on different dropout percentages between ethnic groups, but analyzing whether ethnic minority background is a predictor of dropout | | | | | | |
| 1. Armbruster & Fallon (1994) | 304 (0-18) United States | Hollingshead four-factor Index of Social Status 41% upper, 19% middle, 32% lower, 8% uncoded | Definition by race 37% minority (24% African American, 6% Hispanic, 7% other) | No information on treatment type Oppositional, aggressive, antisocial behavior disorders | Failure to attend, repeated cancellations resulting in no further contact, or open refusal of recommendations for further evaluation or treatment. | Predictors: one-parent family, uninsured families, ethnic minority background (but not after controlling for SES), lower SES, combination of a nonminority parent with a minority therapist d.o. = 45% |
| 3. Kazdin et al. (1994) | 75 (4-13) United States | Hollingshead socioeconomic class 26.8% class 5, 26.8% class 4, 28.2% class 3, 12.7% class 2, 5.6% class 1 | Definition by race 36% minority (32% Black, 4% Hispanic) | Cognitive problem-solving skills training and Parent management training Oppositional, aggressive, antisocial behavior disorders | Premature termination based on the unilateral decision by parent or family, while inadvisable and against advice of clinical team. 3 constructed groups: dropouts, matched completers, unmatched completers. | Predictors: younger mother, ethnic minority background, greater dysfunction, higher pretreatment levels of emotional and behavioral problems, lower pretreatment prosocial functioning. No predictors: socioeconomic status, parental stress, parent psychopathology. |
| 7. Kendall & Sugarman (1997) | 190 (8-14) United States | Mother's level of education and family income No information about the distribution | Definition by race 80.5% Caucasian, 19.5% ethnic minority (African American, Hispanic, Asian) | Cognitive-behavioral treatment Anxiety disorders | Starting treatment but unilaterally decide to terminate before the end of the time-limited treatment. Refusers: were evaluated and offered treatment but never received it. | Predictors: less anxiety symptoms according to child reports, ethnic minority background, single-parent household, experiencing that help was no longer needed and that the child did not like the clinic. Refusers: younger than dropouts and less internalizing problems than dropouts according to teacher reports. d.o. = 23% |
| 8. Baruch et al. (1998) | 134 (12-24) United Kingdom | Jarman Index of deprivation (for the area of residence) 71.6% with high deprivation | Definition by race 79.1% White, 20.9% ethnic minority | Psychoanalytic psychotherapy All types of mental health disorders | Early d.o.: Dropping out after the first session and before the sixth session. Late d.o.: Dropping out after the fifth session and before the 21 st session | Predictors early and late d.o.: younger age, high delinquency scores, high externalizing problems scores, not self-referred, problems in school-, diagnosis of hyperkinetic or conduct disorder, interpretative approach (as opposed to supportive |

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| 9. Dierker et al. (2001) | 117 (0-18) United States | No information | Definition by race 78% Caucasian, 22% ethnic minority | No information on treatment type All types of mental health disorders | Went through the (SRT) service review team process, but excited before goals were met and/or before the child was linked to external services. Refusers: were never served by the system. | approach), non-minority status. Predictors d.o.: depressed and isolated behaviors, substance abuse problems, multiple referral reasons. Predictors refusal: considered less urgent at the time of referral, multiple referral reasons. d.o. = 20,5% |
| 10. Garcia & Weisz (2002) | 344 (7-18) United States | 9-point Hollingshead occupation score The occupation mean was 3.47 (higher scores = higher SES) | Definition by race 51% Caucasian, 16% African American, 14% Latino, 19% other | No information on treatment type All types of mental health disorders | Clinic record information: statements that termination was 'against therapist advice' or 'premature' were used to indicate dropout. Early d.o.: five treatment sessions or less. Late d.o.: six sessions or more. | Predictors: a perceived lack of therapist involvement and investment in the child and parent, a belief that the therapist was not competent or effective, and a perception that going to the clinic was not going to help the child and was too costly anyway. No significant differences were found between both dropout groups. No predictors: socioeconomic status, ethnic background d.o. = 61,6% |
| 13. Pina et al. (2003) | 137 (6-16) United States | Family income 26.8% low, 28.3% middle, 44.9% high | Definition by race 38.0% Hispanic/Latino, 57.7% Euro-American, 4.3% other | Exposure-based treatment Phobic and anxiety disorders | Beginning to attend treatment sessions but unilaterally terminate the treatment program. | Predictors: null findings emerged in exploring for differences between Hispanic/Latino and Euro-American completers and non-completers. d.o. = 22,6% |
| 14. Lau & Weisz (2003) | 343 (7-17) United States | Family income No information on distribution | Definition by race 45.5% White, 16.6% African American, 12.2% Hispanic, 1.7% Asian Pacific Islander, 23.9% other/mixed | No information on treatment type A reported history of maltreatment | Discontinuing without the consent of the therapist. Early d.o.: median number of sessions (eight). | Predictors: maltreated child accompanied to treatment by a maltreating parent and to a lesser extent by a non-perpetrator parent. No predictors: socioeconomic status, ethnic background, parent psychopathology, life events No d.o. percentages |
| 15. Halliday-Boykins et al. | 1711 (6-18) | Parent education and family income | Definition by race | Multisystemic therapy | Reasons for discharge reported by therapists (i.e., successful vs. not | Predictors: Asian American were more likely to be discharged for d.o. = 33% |

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| (2005) | United States | 25.1% no high school, 38.5% completed high school, 36.4% college | 64.4% Caucasian, 18.8% African American, 6.5% Asian, 5.1% Latino, 5.1% other/mixed | All types of mental health disorders | successful) | successful reasons than Caucasian families. For the other ethnic groups no differences were found. Ethnic match between caregiver and therapist was positively associated with discharge success. |
| 17. Shellef et al. (2005) | United States (12-18) | Poverty index of Hollingshead and Redlich | Definition by race 47% White, 47% African American, 6% other | Multidimensional family therapy | Completing less than eight sessions | Predictors: Parent-therapist alliance d.o. = 18.7% No predictors: Adolescent-therapist alliance, ethnic background |
| 18. Stevens et al. (2006) | United States (5-17) | Medicaid health coverage was the indicator for low-to middle-class range of SES | Definition by race 67.9% Caucasian, 28.3% African American, 0.5% Hispanic, 3.3% other/mixed | No information on treatment type | Therapist indication that treatment goals had not been at least partially met. | Predictors: less perceived relevance of treatment and a lower quality of the therapist-family relationship. , only cases No predictors: ethnic background, socioeconomic status |
| 20. Miller et al. (2008) | United States (2-17) | Family income 41.5% was below the US Census poverty level | Definition by race 71.2% White, 28.8% African American | No information on treatment type | 1) Intake retention: Those who attended only one (intake) appointment. 2) Mutual termination: terminating without therapist agreement. 3) Mean treatment duration: comparing number of sessions of individual with mean number of total sample | No d.o. percentages indicated as dropout were included d.o. 1) = 17% d.o. 2) = 38.6% d.o. 3) = 66.2% attended fewer sessions d.o. CR = 51,3%, d.o. PT: pre-treatment = 12,7% early = |
| 22. Gonzales et al. (2011) | United States (5-18) | Medicaid health coverage was the indicator for low-to middle-class range of SES | Definition by race 49.7% Caucasian, 24.4% African American, 15.7% | No information on treatment type | Clinician-rated d.o. (CR): youths/families who unilaterally decided to terminate and discontinued contact with clinic (terminations for reasons beyond ones control were seen as non-d.o.) Phase of treatment d.o. (PT): pre- | predictors CR: high level of depression symptoms predictors PT: minority status predicted pre-treatment d.o. (only African Americans had higher pre-treatment = minorities) |

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| 23. Warnick et al. (2012) | 1098 (5-18) United States | Medicaid health coverage was the indicator for low-to middle-class range of SES 90.3% received Medicaid coverage | Hispanic/Latino, 10.1% other | Definition by race 43.2% Caucasian, 28.2% African American, 23.1% Hispanic, 5.5% other | No information on treatment type All types of mental health disorders | <p>treatment (0-1 sessions), early (2-6 sessions), late (> 6 sessions)</p> <p>14,2% late = 24,4%</p> |
| | | | | | <p>Three definitions</p> <p>1. Clinician judgment: youths were classified as dropouts based on the clinician coded reason for discharge</p> <p>2. Missed last appointment: youths were classified as dropouts if they did not attend their last scheduled appointment</p> <p>3. Dose: Youths were classified as dropouts if they attended less than 12 sessions within 4 months</p> | <p>predictors def 1: African-American ethnicity, single caregiver household</p> <p>1 = 63,1% d.o. with def</p> <p>predictors def 2: African American ethnicity, Hispanic ethnicity, single caregiver household, having Medicaid insurance</p> <p>2 = 56,6% d.o. with def</p> <p>predictors def 3: Hispanic ethnicity, living with non-biological family, longer wait time</p> <p>3 = 88,1% d.o. with def</p> |
| 24. Stein et al. (2012) | 2077 (6-12) United States | Only Medicaid-enrolled children were included | Definition by race (obtained from state files): 48% Caucasian, 32% African American, 20% other. | Individual, family, and group outpatient therapies, intensive community-based services | <p>A treatment was considered prematurely terminated if there was a 90-day gap in care.</p> | <p>Predictors : receiving psychosocial treatment alone (in contrast to receiving medication as well). African American ethnicity, living in an urban community (in contrast to living in a rural area)</p> <p>d.o. = 38% (within 6 months after treatment started)</p> |
| 25. Bagner et al. (2013) | 44 (1-6) United States | Poverty (meeting federal guidelines) and maternal education (completed high school or less): 34.1% was socioeconomically disadvantaged | Definition by race: 72.7% Caucasian, 27.3% Black/Hispanic/Biracial | Parent-Child Interaction Therapy Externalizing problems and delay or borderline developmental delay | <p>Not finishing all planned therapy sessions</p> | <p>Predictors: minority status, single-parent household, having higher cumulative risk (i.e., more risk factors: minority status, single-parent, socioeconomic disadvantage, lower maternal intelligence, maternal distress)</p> <p>No predictor: socioeconomic status</p> <p>d.o. = 50%</p> |
| 26. Schneider et al. (2013) | 73 (4-12) United States | No information | Self-identification: 43.8% White, 56.2% ethnic | Parent training and school-based behavioral interventions | <p>Prior to the initiation of therapy: discontinuing services at any point after completion of the initial assessment packet but prior to the</p> | <p>Predictors d.o. prior to treatment: ethnic minority status, severity of hyperactive/impulsive and CD symptoms, single-parent</p> <p>d.o. prior to treatment = 22% d.o. during</p> |

| minority | Attention-Deficit Hyperactivity Disorder | first treatment session. During treatment: signing the treatment contract and completing at least one treatment session, but discontinuing treatment prior to completing the last planned session. | household, not receiving ADHD medication Predictors of d.o. during treatment: severity of CD symptoms, single-parent household No predictor: socioeconomic status | treatment = 39% |
|--|--|--|---|---|
| Group 4: Studies reporting on other ethnicity-related variables | | | | |
| 4. Yeh et al. (1994) | 4616 (6-17) United States Medi-Cal status (patients qualifying for Medi-Cal considered as being in poverty) | Self-identification 26.4% African-American, 19.6% Asian-American, 21.6% Caucasian-American, 32.5% Mexican-American | No information on treatment type All types of mental health disorders (disorders that feature psychotic symptoms and often require medication were defined as serious) | No d.o. percentages |
| 16. Wintersteen et al. (2005) | 600 (12-18) United States No information | Definition by race 61% Caucasian, 32% African American, 7% Latino | Motivational enhancement therapy, Individual behavioral therapy, Multidimensional family therapy Substance abuse disorders | Predictors for adolescents: more serious admission diagnosis, no ethnic match with therapist (accounted for African Americans, Mexican-Americans and Asian-Americans, not for Caucasian-Americans), Predictors for children: none, no effect of ethnic match |
| 19. Robbins et al. (2006) | 30 (12-18) United States Family income 70% had an income level at or below poverty | Definition by race 80% African American, 16.7% White, 3.3% Hispanic | Attending less than two-thirds of the intended treatment sessions Completing less than eight sessions and being classified by the therapist as a dropout | d.o. ethnic match (N = 379) = 21% d.o. no ethnic match (N = 163) = 45% |
| 19. Robbins et al. (2006) | 30 (12-18) United States Family income 70% had an income level at or below poverty | Definition by race 80% African American, 16.7% White, 3.3% Hispanic | Completing less than eight sessions and being classified by the therapist as a dropout | Predictors: being older, fewer problems as judged by the adolescents, fewer externalizing reduction in both parent-therapist and adolescent-therapist alliance from session one to session two for African American families |

Dropout percentages

In the study of Kazdin and Mazurick (1994) the dropout percentage for African American children was 63.7%, for other ethnic minority children it was 50%, while for Caucasian children it was much lower with 37.7% (no information on statistical significance). In a later study of Kazdin et al. (1995) the dropout percentage for African American children was 59.6%, while for Caucasian children it was again lower with 41.7% ($p < .01$). Another study of Kazdin et al. (1997) only compared the minority group as a whole with non-minorities, here the minorities had a dropout percentage of 52.4% and the non-minorities had a lower percentage of 32.9% ($p < .001$). Flicker et al. (Flicker, Turner, Waldron, Brody, & Ozechowski, 2008) compared Hispanic American adolescents with Caucasian adolescent and found higher dropout percentages for the Hispanic group (48.8%) than for the Caucasian group (34.9%) (no information on statistical significance). Lamb et al. (2002) also gave higher non-attendance rates for Bangladeshi than for native English children, i.e., 39.4 versus 26.9% ($p < .05$). According to nine other studies, ethnic minority background was indeed a predictor for dropout or shorter treatment duration. Five of these studies included several ethnic groups (i.e., Caucasian American, African American, Hispanic American, Asian American) and no further differentiation between specific ethnic minority groups was made (Armbruster & Fallon, 1994; Bagner & Graziano, 2013; Kazdin, Mazurick, & Siegel, 1994; Kendall & Sugarman, 1997; Schneider, Gerdes, Haack, & Lawton, 2013). In three of these studies several ethnic minority groups were compared with the Caucasian group, but a higher dropout chance was only found for the African American youth and not for the other minority groups (Gonzalez, Weersing, Warnick, Scahill, & Woolston, 2011; Stein, Klein, Greenhouse, & Kogan, 2012; Warnick, Gonzalez, Weersing, Scahill, & Woolston, 2012). In one study (Miller, Southam-Gerow, & Allin Jr., 2008), only African American and Caucasian American youth were included and here an African ethnicity was a dropout predictor as well.

Six studies on the other hand, stated that ethnic minority status was not a predictor for dropout (Dierker, Nargiso, Wiseman, & Hoff, 2001; Garcia & Weisz, 2002; Lau & Weisz, 2003; Pina, Silverman, Weems, Kurtines, & Goldman, 2003; Shelef, Diamond, Diamond, & Liddle, 2005; Stevens, Kelleher, Ward-Estes, & Hayes, 2006). These studies all included several ethnic groups (i.e., Caucasian American, African American, Hispanic American, Asian American) and no further differentiations between ethnic groups were made, analyses were only done for the ethnic minority group as a whole versus the majority group.

Three studies even stated that minority families were more likely to have completed therapy than majority families (Baruch, Gerber, & Fearon, 1998; Halliday-Boykins, Schoenwald, & Letourneau, 2005; McCabe, 2002). In the study of Baruch et al. (1998) it was not clear which ethnic groups were included in their 'ethnic minority' category. In the study of Halliday-Boykins et al. (2005) the lower dropout chance was only found for Asian Americans versus Caucasian Americans. For the other ethnic minority group no differences were found. In another study that specifically focused on Mexican American patients (with no comparison group), it was found that these minority patients had a rather low dropout percentage of 29% compared to the dropout percentages usually found in studies with ethnic majority youths (McCabe, 2002). Similarly, in a Dutch study on ethnic minority patients (where no majority patients were included) a dropout percentage of 35.7% was found (De Haan, Boon, De Jong, Geluk, & Vermeiren, 2014) which is quite similar to the dropout percentages usually found in (Caucasian) majority groups as seen in the described studies above. Although there were no dropout percentages of native Dutch children to compare with.

Dropout predictors

In eight studies it was found that a lower socioeconomic status was not a predictor for dropout at all, independent of the ethnic background of the patient (i.e., Caucasian, African American, Hispanic American, Asian American, and Asians in Hong Kong) (Bagner & Graziano, 2013; Flicker, et al., 2008; Garcia & Weisz, 2002; Kazdin, et al., 1994; Lau & Weisz, 2003; McCabe, 2002; Schneider, et al., 2013; Warnick, et al., 2012). Other studies did find an increasing effect of a lower socioeconomic status on dropout. According to Armbruster and Fallon (1994), a lower socioeconomic status was a predictor for dropout, and minority status (i.e., African American and Hispanic American) was not a predictor for dropout anymore after controlling for socioeconomic status. Kazdin and Mazurick (1994) stated that a lower socioeconomic status was a predictor for dropout in an early stage but not for dropout in a later stage of treatment. Kazdin et al. (1995) found that socioeconomic disadvantage was a predictor for dropout in Caucasian families but not in African American families, while in a later study Kazdin et al. (1997) found that socioeconomic disadvantage was a predictor for dropout for all ethnic groups (i.e., Caucasian, African American, Hispanic American and Asian American).

Three studies specifically focused on the differences in dropout predictors between ethnic groups. For instance, predictors for Caucasian families were having a younger mother, a single-

parent family, high parental stress, parental psychopathology, child antisocial behavior, overall child dysfunction, lower child academic functioning, and adverse child rearing practices, while for African American families only high parental stress, child antisocial behavior, lower child academic functioning, and adverse child rearing practices were found to predict dropout (Kazdin, et al., 1995). On the contrary, two studies did not find any difference in dropout predictors between ethnic groups (i.e., Caucasian, African American, and Hispanic ethnicity) (Dierker, et al., 2001; Pina, et al., 2003).

Six studies focused on the effect of an ethnic match between patient and therapist on dropout. Caucasian parents who were treated by an African American or Hispanic American therapist had a higher chance to drop out than all other ethnic combinations of therapist and patient (Armbruster & Fallon, 1994). According to Halliday-Boykins et al. (2005) and Wintersteen et al. (2005), a high relationship between dropout and having no ethnic match between parent and therapist, was seen for all ethnic backgrounds. In the study of Yeh et al. (1994), the effect of an ethnic match was only seen when the patient was an adolescent, i.e., the absence of an ethnic match between therapist and adolescent patient predicted dropout for African American, Hispanic American and Asian American adolescent patients. With children, no effect of ethnic match was found. Similarly, McCabe (2002) and Flicker et al. (2008) found no effect of ethnic match for Caucasian and Hispanic American or Mexican American patients of any age.

With respect to the therapeutic alliance, a reduction in both parent-therapist and adolescent-therapist alliance from session one to session two was found to relate to dropout with African American families (Robbins, et al., 2006). For Hispanic families an unbalanced alliance (i.e., parent-therapist alliance minus adolescent-therapist alliance) measured during the first session was found to relate to dropout, while this was not a dropout predictor for Caucasian families (Flicker, et al., 2008). For ethnic minority children and adolescent in The Netherlands it was found that a reduction of the self-rated quality of the therapeutic relationship during the course of treatment was related to dropout, which had been also found in other studies for the majority Dutch children (De Haan, Boon, De Jong, et al., 2014).

Warnick et al. (2012) compared dropout predictors when using three different dropout definitions. They concluded that African-American ethnicity was a predictor for dropout when dropout was defined by the 'clinician judgment' (i.e., youths were classified as dropouts based on the clinician coded reason for discharge) or by 'missing the last appointment' (i.e., youths were classified as dropouts if they did not attend their last scheduled appointment), but not

when dropout was defined by 'dose' (i.e., youths were classified as dropouts when they attended less than 12 sessions within 4 months). A Hispanic ethnicity on the other hand, was a predictor for dropout if it was defined by 'missing the last appointment' or by 'dose'. Similarly, Schneider et al. (2013) found that ethnic minority status only was a predictor for dropout prior to treatment but not during treatment.

Summary of dropout percentage and predictor findings

From the results it appears that it depends on the specific ethnic background whether ethnic minority patients have a higher chance to drop out than ethnic majority patients. Indeed, three studies showed that ethnic minority status was only a predictor of dropout when African-American patients were concerned (study 22, 23, 24) or dropout percentages were higher for all minority groups but the highest for the African American group (study 2). For the other minority patients, there was no higher chance on dropping out than for the ethnic majority patients. Six studies on the other hand, concluded that having an ethnic minority background (including the African American background) was not a predictor of higher dropout percentages (study 9, 10, 13, 14, 17, 18). It is not clear whether in these studies analyzing the African American group separately would have resulted in higher dropout chances for this group. Although it certainly seems to be the case in some studies, it remains unclear whether African American background always is a risk factor for dropping out. With respect to Hispanic or Mexican patients, one study found higher dropout rates for Hispanic than for Caucasian adolescents (study 21), while another study found relatively low dropout rates for the Mexican patients (study 11). Two studies did not find a higher dropout risk for Hispanic Americans compared to Caucasians either (study 22, 23). American studies that included patients of Asian descent, gave lower dropout rates for this group compared to Caucasian patients (study 15), or concluded that ethnic minority status was no risk factor for dropout (study 14). Two other American studies that included patients of Asian American background however found that ethnic minority status in general was a predictor for dropout (study 2, 7) but because these two studies did not differentiate between ethnic minority groups, the effect of an Asian background could not be deducted. One English study gave higher dropout rates for their Asian patients than for ethnic majority youths though (study 12). However it might not be warranted to compare the results from this English study with the results of American studies. Similarly, only one Dutch study could be included in this review and the results of this study (i.e., rather similar dropout rates for

ethnic minority youth as for majority youth) cannot be compared with results of American studies either. For several other studies it was not clear which ethnic minority backgrounds were included in their category 'other minority background'. In general, the results indicate that an Asian American or a Hispanic/Mexican American background probably is not a risk factor for dropping out, but the results are contradictory and there are too few studies that analyzed Hispanic/Mexican Americans and Asian Americans as separate groups to warrant firm conclusions. As to ethnic minority background being a risk factor for dropping out in other countries than the United States, much remains unclear.

It can also be summarized that several differences in dropout predictors between the ethnic groups were found. Some child and family pre-treatment variables that were found to be dropout predictors for Caucasian families (i.e., younger mother, single-parent family, parental psychopathology, overall child dysfunction) were not found to predict dropout for African American families (study 5). For Hispanic families, an unbalanced therapeutic alliance measured during the first session (i.e., parent-therapist alliance minus adolescent-therapist alliance) was found to relate to dropout, while this was no dropout predictor for Caucasian families (study 21). For ethnic minority children in The Netherlands a decreasing quality of the therapeutic alliance was related to dropout, as was also found for majority youth in former studies (study 27). Next, the results indicated that in general a lower socioeconomic status is no risk factor for dropping out (study 3, 10, 11, 14, 21, 23, 25, 26). Only four studies did find an increasing effect of a lower socioeconomic status on dropout, but it sometimes depended on the specific ethnic background whether this effect of socioeconomic status was found (study 5). Especially for patients with an African American background this did not seem to be the case. An ethnic match between therapist and the parent or the patient had a positive effect (i.e., a lower chance to drop out) in some (study 15, 16), but not in all cases (study 11, 21). It sometimes depended on the specific combination of the therapist and the patient whether a negative effect of a non-match was found, e.g., only the combination of a Caucasian patient treated by a non-minority therapist was related to dropout (study 1). The age of the patient appeared to be an important factor in the effect of the presence or absence of an ethnic match between the patient and the therapist as well (study 4). For adolescents, an ethnic match was clearly more important than for children, i.e., an ethnic match decreased the dropout risk with adolescents but not with children.

Discussion

The aim of this literature review was to provide an overview of the findings (i.e., dropout percentages and dropout predictors) from empirical studies on premature termination in child and adolescent therapy with ethnic minorities. Specifically, information on dropout predictors (i.e., whether dropout determinants are ethnic specific) and dropout percentages (i.e., whether dropout is just as high or higher among ethnic minority youth compared to ethnic majority youths) was gathered. It became clear that there were not many studies that focused on ethnic background and dropout. In addition, the studies that did focus on this subject showed mainly conflicting results and predictors were only studied in a small amount of studies. There could be some methodological issues that cause these inconsistencies in findings. For instance, some of the studies had quite a small number of respondents in relation to the high number of predictors that they analyzed. When multiple predictors are included, it is usually recommended that there should be at least 10 respondents per predictor. This rule was violated in some of the studies. It might also be that the results are influenced by the specific definitions that were chosen for ethnicity, socioeconomic status and dropout, which vary widely across studies. In addition, it might be that there are important variables that are associated with race which likely influences the results, e.g., often ethnic minorities have a lower SES than majorities, or patients with a certain background might be treated for a certain disorder more often (De Haan, Boon, Vermeiren, & De Jong, 2014). Unfortunately, as can be seen in the table, the studies did not give information on the distribution of SES per ethnic group or the distribution of the specific disorders per ethnic group. We therefore do not know whether the increased or decreased dropout risk of certain ethnic groups are mediated by variables such as diagnoses and SES. For instance, practical obstacles that can be associated with a both lower SES as with ethnic minority status (e.g., more distance to institution, not being able to pay for the bus, not having mental health insurance) can result in a higher chance to drop out. Although in one study it appeared that the increasing effect of minority status on dropout was not present when the socioeconomic status was taken into account. This indicates that a lower SES, and not ethnic minority status, was the most important predictor for dropout. Still, this was analyzed in only one study and therefore no firm conclusions on this subject can be given.

Another issue to consider is that fact that most studies defined minority background by race. This might indirectly implicate that racialized identities are imposed on the patients which influences both the way that therapy is given by clinicians as the way that therapy is received by

the patients. For instance, several studies found that clinicians are susceptible to information-gathering biases that will influence the diagnostic process, such as seeking information to confirm the diagnosis while ignoring conflicting information, and making decisions based on assumptions about for instance ethnicity (Garb, 2005; Torres, Zayas, Cabassa, & Perez, 2007; Zayas, Cabassa, Perez, & Howard, 2005). As a consequence of potential misdiagnoses, ethnic minority youth might not receive the right treatment for their disorders, affecting the course and the outcome of treatment, and a higher dropout rate might be one of the consequences (Jensen-Doss & Weisz, 2008). It should also be noted that the youth population that participated in the included studies was rather heterogeneous with respect to their diagnoses, which might have influenced the results. Indeed, some of the studies specifically focused on youth with anorexia nervosa, youth with conduct disorders, or youth with anxiety disorders, while some other studies focused on youth with a wide range of problems without giving specifications. The type of treatment differed per study as well. Some studies focused on family therapy, or social skills training, or exposure-based treatment, or did not give any specification for the type of treatment that was investigated. These variations in study population or in type of treatment could also have influenced some of the differences or lack of differences found in our review.

The chosen dropout definition might also influence the results. It might be that certain ethnic groups terminate treatment more often at a certain stage of treatment (e.g., prior to treatment, after just 1 or 2 sessions, after one year) and it thus depends on the chosen definition whether an effect of ethnic minority status is found. Another important issue to consider is that in general ethnic minorities are less likely to receive mental health services than the majority population (Boon, De Haan, De Boer, & Klasen, 2014; De Haan, et al., 2012; Goodman, Patel, & Leon, 2008; Ivert, Merlo, Svensson, & Levander, 2013). This indicates that the groups that enter the services are not random, which might influence the results found in the reviewed studies, and it is therefore difficult to make comparisons across ethnicity. Last, almost all studies were American studies (i.e., 24 studies were conducted in the US, two studies were conducted in the UK, and one was conducted in The Netherlands) and it is therefore unclear whether the results account for countries outside the United States. For instance, there are clear differences in mental health care availability and mental health insurance status between countries. Utilization of health care services in most of the western European countries is largely independent from financial constraints, and in general all children and adolescents are covered by public or private health insurance (Zwaanswijk, Van der Ende, Verhaak, Bensing, &

Verhulst, 2005). The results of US studies may therefore not be directly applicable to countries outside the US. This is an important issue to consider, and it thus seems that dropout studies conducted outside the US are lacking until now. We hope that the results of present review will trigger researchers from outside the US to conduct dropout studies as well.

A limitation of the way this review was conducted is that only peer-reviewed published studies in the English language were included. There might be much more information available which we could not include in our review. Studies published in languages other than English could have provided us with information on for instance therapy with youth in other countries outside the US and England. Second, we were not able to conduct a meta-analysis. A meta-analysis would have given more structured information on effect sizes per ethnic group for the dropout predictors and dropout percentages. However, only five of the twenty-seven included studies (study 2, 5, 6, 12, 21) reported on percentages per ethnic group, and six studies reported on predictors per ethnic group (study 4, 5, 13, 16, 19, 21), and most predictors were only described in one or two studies. Therefore, effect sizes per predictor could have only been calculated based on the information from one or two studies. Because this would have resulted in unrealistic effect sizes, we decided not to conduct a meta-analysis but to do a literature review instead. A third limitation is that we did not report on therapy in settings other than outpatient settings, because this was beyond our scope. Our results can therefore not be generalized to other settings such as inpatient therapy, forensic treatment, alcohol or drug treatment, internet therapy etcetera. An important limitation of the included studies is that they often only focused on pre-treatment child and family variables that are present prior to treatment and cannot be changed during treatment.. In an early review on dropout in child and adolescent psychiatry it was already stated by the authors that mere identification of the different static variables without conceptualizations of the underlying processes of premature termination is unlikely to improve our understanding of dropout (Armbruster & Kazdin, 1994). The first theoretical model on these underlying processes was introduced; the barriers-to-treatment-participation model (Kazdin, Holland, & Crowley, 1997; Kazdin, Holland, Crowley, & Breton, 1997). This model proposes that families experience multiple barriers associated with participating in treatment and that these barriers increase the risk for dropping out. These barriers include stressors and obstacles that compete with treatment participation (such as conflict with a significant other about coming to treatment), treatment demands and issues (such as treatment being too costly or too long), perceived relevance of treatment (such as the

perception that treatment is of little relevance to the child's problems), and the relationship with the therapist (such as little perceived support from the therapist). The absence of barriers might serve as a protective factor (i.e., for families with a high risk for dropping out, the perception of few barriers might attenuate the risk), while the presence of barriers could serve as a mediator by explaining how other (static) predictors operate to produce dropping out (Kazdin, Holland, Crowley, et al., 1997). Thus, a potential barrier such a negative experience of the therapeutic relationship might mediate the process of how static variables such as ethnic background and socioeconomic status relate to dropout. It is therefore of utmost important that both static pre-treatment variables and potential participation barriers during treatment are taken into account in future dropout studies.

It also has to be mentioned that several important issues have been lacking in the conducted research until now. For instance, there is very little about differences in the quality of the therapeutic relationship between ethnically matched therapist-patient dyads and dyads where this matching is not present. Combining these two issues would have learned us more about the effect of ethnic matching on the quality of the therapeutic relationship and its effect on dropout. This could have given valuable recommendations for clinical practice. We recommend that these elements are combined in future dropout studies. Also, information about the kind of therapy offered is often lacking in the reviewed studies. And we thus do not know whether specific elements of the offered therapy have influence on the results. We therefore recommend that all future studies on dropout should take the type of therapy into account. We also do not know why the subjects of the studies dropped out. It is possible that some patients prematurely terminate therapy because they (or their parents) feel they have benefitted enough (while the therapist disagrees) and whether these patients are to be seen as dropouts in the negative sense. Ideally all patients that prematurely terminate are asked for their reasons to drop out. The authors of the above described theory (i.e., "the barriers-to-treatment-participation model") developed a questionnaire about the reasons to (prematurely) terminate therapy. This questionnaire, the "Barriers to Treatment Participation Scale (BTPS)", has to be completed at the point of therapy termination (Kazdin, Holland, Crowley, et al., 1997). An apparent problem with dropouts is they are often hard to reach and thus often will not complete questionnaires that are administered after termination. Some interesting perspectives on this subject can be found in the work of a recent national UK project "Improving Access to Psychological Therapy", also known as IAPT (Clark, 2011; Clark, et al., 2009). Here the therapists

are expected to collect feedback after every session (e.g., complete a questionnaire every session) from the patients. In this way it is assured that a measure of the experienced severity of the disorder at the last clinical contact is available for almost everyone, including those individuals who drop out or complete treatment earlier than anticipated. This is an advance to the usual method of administering questionnaires at the start and at the end of therapy that usually have low response rates from individuals who drop out or complete treatment earlier than anticipated. The analyses in one of the studies (i.e., data of the questionnaires that were completed every session were compared with data of the less frequent questionnaires) strongly suggest that patients who fail to provide post-treatment data in conventional outcome monitoring systems (i.e., the dropouts or other early terminators) patients that are likely to have done less well clinically than the patients who provide post-treatment data (Clark, et al., 2009). Researchers can learn from the perspectives of this IAPT project that it is very useful to try and collect data during several sessions of therapy to assure that data from dropouts and other early terminators are also available.

Conclusions

In spite of the limitations mentioned above, we can give some conclusions and recommendations for clinical practice. For one, the review indicates that therapists should pay extra attention when they start therapy with patients with certain characteristics. The most obvious result was that an African American background can be a risk factor for dropout, and it can therefore be advised that therapists are aware of the increased dropout chance when starting treatment with African American patients. This increased risk might for instance be due to perceived racism, a preference for informal therapies outside the medical system, religious coping, or traditional explanations of illness and symptoms which do not match with the explanations of the therapists. For patients of other ethnic minority backgrounds, the risk is probably not higher than that of majority patients. Next, a lack of ethnic matching among adolescent patients and their therapists can be predictors for dropout, while a lower socioeconomic status is probably not a dropout predictor. An ethnic match between therapist and the (adolescent) patient may increase the chance that patients will complete therapy. In order to prevent dropout, mental health institutions might try to ethnically match their patients and clinicians when this is possible. It is also important for clinicians to be aware of the therapeutic alliance, a negative or decreasing quality of the therapeutic alliance can increase the

dropout risk (and this accounts for patients of various ethnic backgrounds). It is recommended that if there is a drop in the rated quality of the therapeutic relationship, the therapist should communicate this with the patient (i.e., give feedback) and it might even be considered to arrange switching therapists (De Haan, Boon, De Jong, et al., 2014). It is probable that giving feedback to the patient about the course of the therapeutic relationship will lead to an improvement in this relationship, and will then lead to a decrease in dropout and an increase in completion of therapy. Clinicians should pay attention to several factors in addition to the ethnic background, the ethnic match, and the therapeutic relationship. Patients where high parental stress, child antisocial behavior, lower child academic functioning, and adverse child rearing practices are present might have a higher risk for dropping out.

These implications for clinical practice only account for therapists in the United States though, and to a lesser extent for therapists in England, Hong Kong and The Netherlands. They might account for clinical practice elsewhere as well, but we do not have enough information on therapy with ethnic minorities in countries outside of these four countries. We therefore recommend that more dropout studies (and English publications of these studies) should be done in countries outside of the United States and with different ethnic groups than those in the US. In these future studies it is recommended that both static pre-treatment variables and potential barriers to treatment participation are being analyzed, that the definitions of ethnicity and socioeconomic status are similar per country, and the definition of dropout is similar across studies. Also results on dropout percentages and dropout predictors should be reported per ethnic group. It would be best to conduct longitudinal follow up studies for the problems that were highlighted in this review. Unfortunately, these type of studies are also the most difficult and expensive ones. But they will make it possible to compare results and give firm clinical implications.

CHAPTER 7

Ethnic background, socioeconomic status, and problem severity as dropout risk factors in psychotherapy with youth

Child and Youth Care Forum, 2014, in press

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Abstract

Background Dropout from child and adolescent psychotherapy is a common phenomenon which can have negative consequences for the individual later in life. It is therefore important to gain insight on dropout risk factors.

Objective Several potential risk factors (ethnic minority status, a lower socioeconomic status (SES), and higher problem severity) were analyzed in present study. Innovations are that these risk factors were examined for children and adolescents separately, and a distinction was made in termination status between referred patients, dropouts and completers.

Methods For ethnic majority and minority outpatient children (age 5-11, $n = 399$) and adolescents (age 12-20, $n = 352$) problem severity, ethnic background, socioeconomic status (SES), and treatment termination status (completer, dropout, referral) were specified. Multinomial logistic regression models were used as main method of analysis.

Results For children, a Moroccan/Turkish ethnicity and higher externalizing scores were risk factors for being referred. For adolescents, a Surinamese/Antillean ethnicity, being female, being older, and lower parental SES occupation levels were risk factors for dropout.

Conclusions Different dropout risk profiles emerged for children versus adolescents, and for dropouts versus referrals. Also, it depended on the specific ethnic background whether ethnic minority status was a predictor for dropout, and the relationship between SES and termination status differed by whether parental SES occupation or parental SES education were used as SES indicator. Professionals should thus be aware of these potential risk factors for dropout or referral when treating children and adolescents.

Keywords: therapy dropout; ethnicity; socioeconomic status; problem severity; youth psychotherapy.

Introduction

With rates of 16% up to 75%, premature termination or dropout from child and adolescent psychotherapy is a common phenomenon (Baruch, Vrouva, & Fearon, 2009; De Haan, Boon, De Jong, Hoeve, & Vermeiren, 2013; Midgley & Navridi, 2006). Not treating behavioral and emotional problems during childhood can have negative consequences later in life (Boggs, Eyberg, & Edwards, 2004; Harland, Reijneveld, Brugman, Verloove-Vanhorick, & Verhulst, 2002). For instance, compared to children who do receive treatment, children with untreated behavioral problems (premature terminators or those who do not receive treatment at all) are more likely to not complete school, engage in delinquent activities, abuse drugs and alcohol, and become unemployed (Lochman & Salekin, 2003; Moffitt, Caspi, Harrington, & Milne, 2002). In addition, untreated, early-onset anxiety disorders often continue into adulthood (Dadds, et al., 1999), and academic underachievement and substance dependence are likely to follow (Woodward & Fergusson, 2001). In order to prevent these negative consequences of treatment dropout, it is important to gain knowledge of its determinants (i.e., dropout predictors) within youth mental health care.

Although dropout predictors in youth mental health care are heterogeneous, they can be divided in three major groups: child factors (e.g., ethnic background, problem severity, age, gender), family factors (e.g., socioeconomic status, family composition, living situation), and therapy or therapist factors (e.g., therapeutic relationship, perceived relevance of treatment, waiting time) (De Haan, et al., 2013). Present study will focus on child and family factors. Studying child and family factors leads to the identification of patients being at risk for dropout. Extra attention to these patients may prevent them from dropping out. In contrast to the rather stable child and family factors, therapy factors are dynamic and can be changed by the professional or the institution. For instance, a therapist may influence the therapeutic relationship during treatment. When the goal is to prevent dropout all three groups of predictors need different interventions (Kazdin, Holland, & Crowley, 1997).

With respect to the child factors, ethnic minority status and higher problem severity appear to be significant risk factors for dropout, while the results for age and gender are very contradictive (De Haan, et al., 2013; Miller, Southam-Gerow, & Allin Jr., 2008; Schoenwald, Letourneau, & Halliday-Boykins, 2005; Warnick, Gonzalez, Weersing, Scahill, & Woolston, 2012). A recent meta-analysis has shown that it depends on the specific ethnic background whether ethnic minority status is a risk factor for dropout however (De Haan, et al., 2013). This meta-

analysis also showed that higher externalizing problem severity, and not higher internalizing problem severity is a risk factor for dropout. In one study conducted in the United States, it was already shown that there is an interaction between ethnicity and externalizing problem severity in predicting therapy dropout with adolescents (Ryan, et al., 2013).

With respect to family factors, a lower socioeconomic status (SES) is an important risk factor for dropout, although results of former studies are contradictory (De Haan, et al., 2013). An important reason for the results being contradictory is that the definition of SES differs across studies and is usually measured by determining education, income, or occupation, or a composite of these three dimensions (Chen, Martin, & Matthews, 2006). The relationship between SES and variables such as (mental) health or therapy outcome differs according to the definition that is used (Kaufman, Cooper, & McGee, 1997; Winkleby, Jatulis, Frank, & Fortmann, 1992). Certain SES indicators were shown to be poorer markers of the actual socioeconomic status among some minority groups than among majorities, because for instance in the United States minority group members on average do not receive the same financial gains for equivalent years of education as Caucasians do (Williams, 2002). In contrast to the situation in the United States (where most of the previous dropout studies were conducted), in the Netherlands utilization of health care services is largely independent of financial constraints, because all children are covered by public or private health insurance (Zwaanswijk, 2005).

It is of interest to analyze how the three significant child and family dropout risk factors (i.e., ethnic background, SES, and problem severity) relate to each other, and how they independently contribute to the risk profile of potential dropouts. For instance, ethnic minority status and SES are interrelated and correlated variables (i.e., ethnic minorities often have a lower SES than ethnic majorities), and it is therefore difficult to discern which of the two variables is the main predictor for dropout (CBS, 2012; Chen, et al., 2006). Taken together, it is possible that ethnic minority background, higher (externalizing) problem severity, and lower SES may negatively impact therapy adherence, thus reducing the likelihood that patients will stay in treatment and benefit from it. Because of the reasons described earlier, it is interesting to study the relationship between ethnic minority background, SES, problem severity, and dropout in a different context than the United States.

An important issue in dropout research is that dropout can be defined in various ways, and these definitions influence the dropout percentages and dropout predictors (De Haan, et al., 2013). Many studies define dropout in terms of the number of sessions attended implicating

that patients attending fewer than the specified number of sessions are categorized as dropouts (Baruch, et al., 2009). However, both treatment completion and dropout can occur after any number of sessions, and not all premature terminators represent treatment failure. As an extra complication some authors argue that patients who are referred to other services or providers are a separate group and can not be classified as dropouts or completers because treatment is continued at the referred site (Armbruster & Fallon, 1994; Johnson, Mellor, & Brann, 2008). These referrals mostly occur when specialist care is needed, for instance, a specific mental health care institution for youth with intellectual disability, a mental health care institution for youth with addiction problems, or a specialized site for eating disorders. It is clear that these patients should not be regarded as dropouts, because the treatment is being continued, nor should they be considered as completers, because the problems are still present and the required treatment has not been completed yet. Until now however, most studies did not identify referred patients as a separate group; these patients were either categorized as dropouts or completers depending on the definition of dropout being used, or were not mentioned at all. It is not known whether referral has similar negative consequences as dropout. For instance, it might be that referred patients receive sufficient and proper treatment at the new sight and they will become completers, or it might be that the patient will drop out at the referred sight. In the first case, one can expect more positive consequences of the referral than in the second case.

This present study intends to extend the knowledge on dropout in psychotherapy with ethnic majority and minority youth in a community based practice. In contrast to former studies, we will examine children and adolescents separately. In an earlier review on dropout in child and adolescent psychiatry it was stated that it is important to perform separate studies on dropout for children and adolescents, because different predictors might emerge for both groups (Armbruster & Kazdin, 1994). Predictors might differ as a function of differences between parents' involvement in therapy at different ages, and the client's understanding of why he/she is in therapy (Yeh, Eastman, & Cheung, 1994). Another addition of present study to the existing literature is that we examine the referrals as a separate termination group, as was proposed by several authors (Armbruster & Fallon, 1994; Johnson, et al., 2008). Patients who did not drop out of therapy, will be categorized as completers or referrals. Because of the aforementioned difficulties with dropout definition, we will use the following definition: 'the termination of treatment at any point of time after inscription that occurs on the child's or

parent's unilateral decision, while the therapist thinks further treatment is needed' (Wierzbicki & Pekarik, 1993). According to this definition all dropouts are accounted for, independent of the number of attended sessions. Another incremental contribution of present study is that we use both parental education and parental occupation as separate SES indicators, to analyze whether one of the constructs had a different relationship with dropout than the other.

We will include five child and family factors, i.e., ethnic background, age, gender, SES, and problem severity. Based on past research it is hypothesized that an ethnic minority background, lower SES, and higher externalizing problem severity will predict dropout. For the variables age and gender we cannot give expectations. Because of the reasons described in the former paragraph we expect to find differences between children and adolescents. Specifically, because of the differences in parents' involvement in therapy (i.e., more involvement with children) we expect the family variable (i.e., SES) to be the most important dropout predictor for children, and the child variables (i.e., ethnicity and problem severity) to be the most important dropout predictors for adolescents. We also expect different factors to be predictors for dropout versus referral. Because past research on this subject is lacking, we cannot give specifics on which differences we expect here.

Methods

Participants

The sample consisted of ethnic majority and ethnic minority outpatient children (age 5-11, $n = 399$) and adolescents (age 12-20, $n = 352$) who entered one of the ambulatory settings of De Jutters, a community based Dutch Youth Mental Health Care (YMHC) center in The Hague (one of the main cities of The Netherlands) in 2008. After entering treatment, patients were followed until they terminated treatment at the outpatient settings (i.e., the last patients terminated treatment in 2012). All patients that started treatment were included in the study, there were no inclusion or exclusion criteria. Upon arrival, patients (from the age of 12), and the patients' parents for youth up to 16 years, were asked to sign an 'informed consent form' to indicate whether their data could be used anonymously for scientific research.

Measures

Sociodemographic information: The sociodemographic variables that were needed for the purposes of our study (i.e., ethnic background, SES-related variables, age, gender), were

automatically registered when clients were enrolled for therapy. The ethnic background of the patients was specified as follows (CBS, 2012): if the country of birth of both parents was the Netherlands (regardless of the country of birth of the child), the child was seen as native Dutch. If one or both parents was born abroad, the child was seen as an ethnic minority. A division in five ethnic groups was made: native Dutch, Surinamese/Antillean (Caribbean), Turkish/Moroccan (Mediterranean), Other western ethnic minorities, and Other non-western ethnic minorities. We followed the guidelines of the Dutch government to distinguish between western and non-western countries. Of the children, 209 had a Dutch ethnicity (52.4%), 49 had a Surinamese/Antillean ethnicity (12.3%), 33 had a Moroccan/Turkish ethnicity (8.3%), 66 had another western ethnicity (16.5%), and 42 had another non-western ethnicity (10.5%). Of the adolescents, 169 had a Dutch ethnicity (48.0%), 63 had a Surinamese/Antillean ethnicity (17.9%), 18 had a Moroccan/Turkish ethnicity (5.1%), 70 had another western ethnicity (19.9%), and 27 had another non-western ethnicity (7.7%).

For the socioeconomic information, we used the classification of the Dutch National Center for statistic information for the highest level of parental occupation, and the highest level of parental education (CBS, 2012). Highest level of parental education (SES education) was divided in three groups: level 1 – primary school or lowest level secondary school, level 2 – average or highest level secondary school, and level 3 – bachelor or master degree. Of the children, 45 had parental SES education level 1 (11.3%), 197 had parental SES education level 2 (49.4%), and 157 had parental SES education level 3 (39.3%). Of the adolescents, 55 had parental SES education level 1 (15.6%), 174 had parental SES education level 2 (49.4%), and 123 had parental SES education level 3 (34.9%). Parental occupation (SES occupation) was also divided into three groups: level 1 – no occupation, level 2 – elementary, low or secondary occupations, and level 3 – high or scientific occupations. Of the children, 45 had parental SES occupation level 1 (11.3%), 183 had parental SES occupation level 2 (45.9%), and 171 had parental SES occupation level 3 (42.9%). Of the adolescents, 57 had parental SES occupation level 1 (16.2%), 178 had parental SES occupation level 2 (50.6%), and 117 had parental SES occupation level 3 (33.2%).

Emotional and behavioral problems: The Dutch versions of the Child Behavior Checklist (Achenbach, 1994a; Verhulst, Van der Ende, & Koot, 1996), and the Youth Self Report (Achenbach, 1994b; Verhulst, Van der Ende, & Koot, 1997) were used to obtain standardized parent-reports on the children's emotional and behavioral problems, and standardized

adolescent self-reports on their own emotional and behavioral problems. Both are robust questionnaires, and they have performed well in other cultures and circumstances yet alien to the original sample (Leung, et al., 2006; Rescorla, et al., 2007; Verhulst, et al., 2003). In the Netherlands, the questionnaires are validated for and have been frequently used with both ethnic majority and minority parents and adolescents (Janssen, et al., 2004; Murad, Joung, van Lenthe, Bengi-Arslan, & Crijnen, 2003; Reijneveld, Harland, Brugman, Verhulst, & Verloove-Vanhorick, 2005; Stevens, et al., 2003).

Termination status: Three different categories of termination statuses were used: dropout, completer, and referral. To discriminate between these different termination groups, the reasons for termination were taken into account. The reasons were derived from the patient records where therapists could choose between predefined categories of termination. As mentioned before, dropout was defined as “the termination of outpatient treatment at any point of time after inscription, that occurred on the child or parents’ unilateral decision, while the therapist thought that further treatment was needed.” Completion was defined as “the termination of outpatient treatment at any point of time during therapy, that occurred with accordance of both the therapist and the patient or parent, while both agreed that treatment goals were (at least partly) reached.” Referral to another service or provider was defined as “termination of treatment at the outpatient department of De Jutters at any point of time during treatment, while the patient was referred to another department within the organization or an institution outside the organization and therapy was continued there.” Examples of departments within the organization were the (day-care) clinics, examples of institutions outside the organization were a specific institution for youth with intellectual disabilities, a specific institution for youth with addiction problems, or a specific intercultural institution. Of the children, 256 were completers (64.2%), 50 were referred (12.5%), and 93 were dropouts (23.3%). Of the adolescents, 175 were completers (49.7%), 42 were referred (11.9%), and 135 were dropouts (38.4%). The termination statuses differed significantly between children and adolescents ($\chi^2(2) = 20.795, p = .000$), this especially accounted for the termination status dropout versus the termination status completer (and not for the termination status referred). Children were more often completers than adolescents, and adolescents were more often dropouts than children.

Results

First, we analyzed the correlations (Pearson's r) between all independent variables for both the child and the adolescent group. Some high and significant associations between independent variables were found (Table 1) and were therefore tested for multicollinearity. Multicollinearity refers to the problem where there are moderate to high intercorrelations among the predictors, which may hinder the execution of multivariate analyses. The variance inflation factor (VIF) for a predictor indicates whether there is a strong linear association between it and all the remaining predictors. Multicollinearity was not found for the predictors for both the child and the adolescent group; the VIF's were low (i.e., between values 1 and 2).

Table 1: Correlations (Pearson's r) between all predictor variables for the Child group and for the Adolescent group

| Predictors | Adolescent group | | | | | | |
|---------------------------|------------------|------|----------------|-------|-------|-----------|-----------|
| | 1 | 2 | 3 ^a | 4 | 5 | 6.YSR int | 7.YSR ext |
| 1. Gender | | .02 | -.06 | .02 | -.03 | .36** | .01 |
| 2. Age | .01 | | -.00 | .08 | .06 | .20** | .06 |
| 3. Ethnicity ^a | .02 | -.00 | | .11* | .20** | -.09 | .00 |
| 4. SES education | .01 | .05 | .10 | | .59** | .03 | -.01 |
| 5. SES occupation | -.02 | .00 | .14** | .67** | | .06 | .07 |
| 6. CBCL int | .10* | .13* | .10 | -.05 | -.07 | | .31** |
| 7. CBCL ext | -.07 | -.07 | .07 | -.11* | -.09 | .45** | |

* $p < .05$; ** $p < .01$

^a In this analyses we used a dichotomous variable (i.e., native Dutch versus ethnic minority) for ethnicity

Note: Left under the diagonal are the numbers for the child group; right above the diagonal are the numbers for the adolescent group.

Second, we conducted several bivariate tests (i.e., χ^2 test for proportions and analysis of variance (ANOVA) for continuous data) to examine which of the predictor variables showed significant associations with the dependant variable Termination Status. Also, we examined which of the predictor variables should be included in the multinomial logistic regression models. Following the recommendations of Hosmer and Lemeshow (2000), predictors with a significance level of .25 or less in the bivariate analyses should be included in the multivariate models.

The bivariate tests (χ^2 and ANOVA) showed that two of the seven independent predictor variables showed significant associations ($p < .05$) with termination status within the *child* group (Table 2): ethnicity and parental SES occupation. With respect to ethnicity ($\chi^2(8) = 15.54, p = .05$), Surinamese/Antillean and 'other non-western' children had the highest proportion within the dropout group, Turkish/Moroccan and 'other western' children had the highest proportion within the referral group, and Dutch children had the highest proportion within the completer group. With respect to parental SES occupation ($\chi^2(4) = 13.02, p = .01$), completers had the highest SES levels, and referrals had the lowest SES levels.

For *adolescents*, five of the seven independent predictor variables showed significant associations ($p < .05$) with termination status (Table 2): age, ethnicity, parental SES occupation, YSR externalizing scores, and YSR internalizing scores. Dropouts were the oldest patients while completers were the youngest patients ($F(2,349) = 3.98, p = .02$). Posthoc analyses (Bonferroni) indicated that dropouts were significantly older than completers ($p = .02$), and no significant differences in age were found between referrals and dropouts or completers. With respect to ethnicity ($\chi^2(8) = 15.88, p = .04$), Surinamese/Antillean and 'other non-western' adolescents had the highest proportion within the dropout group, Turkish/Moroccan adolescents had the highest proportion within the referral group, and Dutch and 'other western' adolescents had the highest proportion within the completer group. With respect to parental SES occupation ($\chi^2(4) = 11.34, p = .02$), completers had the highest SES occupation levels, while dropouts the lowest SES occupation levels. And for YSR externalizing scores ($F(2,349) = 3.38, p = .04$) and YSR internalizing scores ($F(2,349) = 3.26, p = .04$) referrals had the highest internalizing and externalizing scores, dropouts had the lowest externalizing scores, and completers had the lowest internalizing scores. Posthoc analyses (Bonferroni) indicated that referrals had significant higher YSR externalizing scores than dropouts ($p = .03$), while no differences in YSR externalizing scores were found between completers and the other two groups. Also, posthoc analyses (Bonferroni) indicated that referrals had significant higher YSR internalizing scores than completers ($p = .03$), while no differences in YSR internalizing scores were found between dropouts and the other two groups.

Of the seven independent predictor variables, four should be included in the multinomial logistic regression models according to the $p < .25$ level for the *child* group (Table 2): ethnicity, parental SES education, parental SES occupation, and CBCL externalizing scores. All seven

independent variables should be included in the multinomial logistic regression models according to the $p < .25$ level for the *adolescent* group (Table 2).

Third, multinomial logistic regression models were used as main method of multivariate analysis to compare more than two groups at once. The independent variables were analyzed in these multinomial logistic regression analyses (where significance levels of $p < .05$ were used) to indicate which of them were significant predictors for termination status when being corrected for the influence of the other predictors. The termination status dropout was used as the reference category, because we wanted to predict the chances for dropout. The multinomial models tested the strength and significance of each potential predictor; chances to belong to the completer or referral group versus the dropout group were indicated by Odds Ratios (OR) with 95% Confidence Intervals (CI), which were computed by exponentiation of the logit coefficients.

Children

The Nagelkerke R^2 indicated that 9% of the variance was explained by this model. Considering the completer group and the dropout group (Table 3), no significant differences in chances to drop out as opposed to complete therapy were found.

Considering the referral group and the dropout group (Table 3), it was found that patients with a Moroccan or Turkish ethnicity ($OR = 0.28$; $CI = 0.08-0.92$; $p = .04$) and higher CBCL externalizing scores ($OR = 0.96$; $CI = 0.93-0.99$; $p = .03$) were less likely to drop out (and more likely to be referred) than patients with a Dutch ethnicity and less externalizing problems respectively.

Adolescents

The Nagelkerke R^2 indicated that 15% of the variance was explained by this model. Considering the completer and the dropout group (Table 3), older ($OR = 1.21$; $CI = 1.06-1.39$; $p = .00$) and Surinamese/Antillean ($OR = 2.17$; $CI = 1.12-14.35$; $p = .02$) patients were more likely to drop out (and less likely to complete therapy), than younger and Dutch patients respectively (Table 3). Also, boys ($OR = 0.60$; $CI = 0.35-1.00$; $p = .05$) were less likely to drop out and more likely to complete therapy than girls, and patients with parental SES occupation level 1 were more likely to drop out and less likely to complete therapy than a patient with parental SES occupation level

3 ($OR = 3.13$; $CI = 1.28-7.69$; $p = .01$). Considering the referral group and the dropout group (Table 3), no significant differences in chances to drop out as opposed to being referred were found.

Table 2: Bivariate tests with Child (n = 399) and Adolescent (n = 352) patients

| Predictors | Child patients | | | | | Adolescent patients | | | | | For χ^2 |
|------------------------|----------------|----------------------------------|---------------------------------|--------------------------------|--------------|---------------------|----------------------------------|---------------------------------|--------------------------------|--------------|--------------|
| | Total | Completers n (%) or M (SD) | Referrals n (%) or M (SD) | Dropouts n (%) or M (SD) | For χ^2 | Total | Completers n (%) or M (SD) | Referrals n (%) or M (SD) | Dropouts n (%) or M (SD) | For χ^2 | |
| Age | 8.06 (2.00) | 7.99 (1.92) | 8.14 (2.12) | 8.20 (2.16) | 0.43 | 14.96 (1.87) | 14.69 (1.72) | 15.10 (1.62) | 15.27 (2.06) | 3.98* | |
| Gender | | | | | 0.69 | | | | | 4.68** | |
| Boy | 268 (67.2) | 174 (68.0) | 31 (62.0) | 63 (67.7) | | 160 (45.5) | 89 (50.9) | 19 (45.2) | 52 (38.5) | | |
| Girl | 131 (32.8) | 82 (32.0) | 19 (38.0) | 30 (32.3) | | 192 (54.5) | 86 (49.1) | 23 (54.8) | 83 (61.5) | | |
| Ethnicity | | | | | 15.54* | | | | | 15.88* | |
| Surinamese/Antillean | 49 (12.3) | 27 (10.5) | 7 (14.0) | 15 (16.1) | | 63 (17.9) | 23 (13.1) | 7 (16.7) | 33 (24.4) | | |
| Turkish/Moroccan | 33 (8.3) | 17 (6.6) | 10 (20.0) | 6 (6.5) | | 18 (5.1) | 9 (5.1) | 6 (14.3) | 8 (5.9) | | |
| Other western | 66 (16.5) | 43 (16.8) | 9 (18.0) | 14 (15.1) | | 70 (19.9) | 38 (21.7) | 9 (21.4) | 23 (17.0) | | |
| Other non-western | 42 (10.5) | 26 (10.2) | 3 (6.0) | 13 (14.0) | | 27 (7.7) | 10 (5.7) | 3 (7.1) | 14 (10.4) | | |
| Dutch | 209 (52.4) | 143 (55.9) | 21 (42.0) | 45 (48.4) | | 169 (48.0) | 95 (54.3) | 17 (40.5) | 57 (42.2) | | |
| SES education | | | | | 7.73** | | | | | 6.78** | |
| Level 1 | 45 (11.3) | 23 (9.0) | 11 (22.0) | 11 (11.8) | | 55 (15.6) | 21 (12.0) | 10 (23.8) | 24 (17.8) | | |
| Level 2 | 197 (49.4) | 127 (49.6) | 24 (48.0) | 46 (49.5) | | 174 (49.4) | 87 (49.7) | 23 (54.8) | 64 (47.4) | | |
| Level 3 | 157 (39.3) | 106 (41.4) | 15 (30.0) | 36 (38.7) | | 123 (34.9) | 67 (38.3) | 9 (21.4) | 47 (34.8) | | |
| SES occupation | | | | | 13.02* | | | | | 11.34* | |
| Level 1 | 45 (11.3) | 20 (7.8) | 12 (24.0) | 13 (14.0) | | 57 (16.2) | 19 (10.9) | 7 (16.7) | 31 (23.0) | | |
| Level 2 | 183 (45.9) | 119 (46.5) | 23 (46.0) | 41 (44.1) | | 178 (50.6) | 87 (49.7) | 24 (57.1) | 67 (49.6) | | |
| Level 3 | 171 (42.9) | 117 (45.7) | 15 (30.0) | 39 (41.9) | | 117 (33.2) | 69 (39.4) | 11 (26.2) | 37 (27.4) | | |
| CBCL/YSR internalizing | 12.22 (8.68) | 12.34 (9.10) | 13.04 (9.43) | 11.44 (6.91) | 0.62 | 18.24 (11.00) | 17.35 (11.35) | 22.14 (11.18) | 18.18 (10.28) | 3.26* | |
| CBCL/YSR externalizing | 14.79 (9.88) | 14.66 (9.99) | 17.48 (19.46) | 13.70 (9.65) | 2.46** | 14.49 (9.02) | 14.63 (8.88) | 17.48 (10.53) | 13.39 (8.53) | 3.38* | |

* $p < .25$; ** $p < .10$; * $p < .05$; ** $p < .01$

Table 3: Multinomial regression analysis for the Child (n = 399) and Adolescent (n = 352) patients

| Predictors | Child patients | | Adolescent patients | |
|-----------------------------|--|--------------------|---|--------------------|
| | Reference category = dropouts (n = 93) | | Reference category = dropouts (n = 135) | |
| | Completers (n = 256) | Referrals (n = 50) | Completers (n = 175) | Referrals (n = 42) |
| | OR (95% CI) | OR (95% CI) | OR (95% CI) | OR (95% CI) |
| Age | - | - | 1.21 (1.06-1.39)** | 1.10 (0.89-1.33) |
| Boy ^a | - | - | 0.60 (0.35-1.00)* | 0.61 (0.28-1.33) |
| Ethnicity ^b | | | | |
| Surinamese/Antillean | 1.64 (0.79-3.45) | 0.94 (0.32-3.03) | 2.17 (1.12-4.35)* | 1.67 (0.60-4.76) |
| Turkish/Moroccan | 0.94 (0.34-2.63) | 0.28 (0.08-0.92)* | 1.11 (0.38-3.33) | 0.40 (0.11-1.52) |
| Other western | 1.03 (0.51-2.04) | 0.72 (0.27-1.96) | 0.90 (0.47-1.69) | 0.76 (0.29-2.04) |
| Other non-western | 1.45 (0.68-3.13) | 2.13 (0.53-9.09) | 2.13 (0.85-5.26) | 1.19 (0.29-5.00) |
| SES education ^c | | | | |
| Level 1 | 1.15 (0.40-3.33) | 0.75 (0.18-3.03) | 0.86 (0.33-2.27) | 0.28 (0.06-1.23) |
| Level 2 | 1.05 (0.49-2.27) | 1.18 (0.37-3.70) | 0.78 (0.32-1.89) | 0.42 (0.11-1.59) |
| SES occupation ^c | | | | |
| Level 1 | 1.75 (0.67-4.55) | 0.59 (0.16-2.17) | 3.13 (1.28-7.69)* | 2.70 (0.61-11.11) |
| Level 2 | 0.98 (0.45-2.13) | 0.75 (0.23-2.44) | 1.67 (0.68-4.17) | 1.56 (0.42-5.88) |
| CBCL/YSR internalizing | - | - | 0.99 (0.97-1.02) | 0.96 (0.93-1.00) |
| CBCL/YSR externalizing | 0.99 (0.96-1.01) | 0.96 (0.93-0.99)* | 0.99 (0.96-1.02) | 0.96 (0.93-1.00) |

^a Girls are used as reference category; ^b The Dutch subgroup is used as reference category; ^c Level 3 is used as reference category

*p < .05, ** p < .01

Discussion and conclusions

This study examined the relationship between five relevant dropout risk factors in child and adolescent psychotherapy (i.e., ethnic background, age, gender, socioeconomic status, and problem severity), and how they contribute to the risk profile of potential dropouts. We intended to fill a knowledge gap by differentiating between children and adolescents, between three termination groups: dropouts, completers, and referrals, and between two SES indicators (i.e., parental education and parental occupation). Our hypothesis that different risk profiles would emerge for children and adolescents was confirmed. Our hypothesis that the variables that predict who will be referred are different from those that predict who will complete or drop out of therapy, was also confirmed. Contrary to our expectations however, we did not find the family variable (i.e., lower SES) to be an important dropout predictor for children. Rather, it was found that children with a Turkish or Moroccan background and higher CBCL externalizing scores were less likely to drop out and more likely to be referred than children with a Dutch ethnicity or less externalizing problems, respectively. And also contrary to our expectations, we found lower parental SES to be an important dropout predictor for adolescents. It was found that older, female, Surinamese or Antillean, and low SES adolescents were more likely to drop out of therapy and less likely to complete therapy, than younger, male, Dutch and high SES adolescents respectively. Taken together, for children only differences were found between dropouts and referrals, while for adolescents only differences were found between dropouts and completers.

In former studies it was unclear whether referred patients were seen as completers or as dropouts. Our findings confirm the additional value of our method of considering referred patients as a separate group. We emphasize that patients who are referred before therapy has ended, can neither be seen as completers nor dropouts, because the treatment is being continued elsewhere (Armbruster & Fallon, 1994; Johnson, et al., 2008), and it is not known how the patient will ultimately terminate therapy. The aggregation of referral patients and other termination groups in the majority of earlier dropout studies may have clouded interpretation of results on dropout predictors.

Our results also indicated that it depends on the specific ethnic background whether ethnic minority status is a dropout predictor. This was also found in former studies where the results on which specific ethnic minority group is at a higher risk for dropout differed per study (De Haan, et al., 2013). The majority of the former studies were conducted in the United States though where other minorities reside than in The Netherlands. As far as we know there is no

other Dutch study similar to our study, and we could thus not compare our results with the results of other Dutch studies. Our results indicated that Moroccan and/or Turkish children were at a lower risk to drop out, but had a higher chance to be referred than Dutch children, while Surinamese and/or Antillean adolescents were at a higher risk to drop out and had a lower chance to complete therapy than Dutch adolescents. Further analyses indicated that the Moroccan and not the Turkish children had a higher chance to be referred, and that the Surinamese and not the Antillean adolescents had a higher dropout chance.

Although our sample size of Moroccan patients was rather small, and the results can thus not be seen as conclusive, we tried to find an explanation for the higher referral chance. We analyzed the sites where the Moroccan patients were referred to, and it appeared that most were referred to the specific mental health care site for youth with (mild) intellectual disabilities. Apparently, most of the Moroccan patients in our research group had psychiatric problems that were associated with intellectual disabilities and the professionals at the YMHC institution where present study was conducted, are not equipped to deal with these problems. An alternative explanation might be that these patients have a lower mastery of the Dutch language and were therefore seen as having intellectual disabilities by the professional (Hoogsteder & Dias, 2011; Verboom, 2002). Unfortunately we did not have information on the appropriateness of the referrals, or on how the therapy was terminated at the referred site. Therefore we do not know whether a referral has negative or positive consequences for the patient. It would have been interesting to include such information and we surely advocate that this is done in future studies. The reason that Surinamese adolescents in particular were at a higher risk to drop out, is difficult to explain. And because this particular sample size was again small, the results can not be seen as conclusive. Future studies should thus clarify whether these results are also found in other youth mental health care institutions in The Netherlands.

Our finding that with adolescents only parental SES occupation, and not parental SES education had a predictive value for dropout is consistent with suggestions of several authors (Kaufman, et al., 1997; Winkleby, et al., 1992) that the relationship between SES and variables such as (mental) health or therapy outcome might differ according to the specific definition that is used for SES. For instance, the level of education does not necessarily result in an equivalent occupational achievement, especially in the case of unemployment (parental SES occupation level 1), because this can occur with every level of education. Also, immigrant parents might have low levels of education, caused by circumstances in their country of birth, such as not

having access to education (Hibbert, Campbell, & Lempens, 2003). Lower education levels thus do not have to indicate that the intellectual capabilities of these parents are low as well. In the host country, these families might gain higher occupational levels than expected, based on their education level. Therefore, the relationship between occupational and educational level is not perfectly linear, although both constructs are highly correlated. This might explain why only one of the two variables had a predictive value for dropout. In the present study, adolescent patients from unemployed parents (parental SES occupation level 1) had the highest chance to drop out, indicating that practical obstacles (e.g., not enough money to pay for transportation) or a lack of awareness of possible psychological problems may have played a role here (De Jong, 2010). As stated, in The Netherlands utilization of health care services is largely independent from financial constraints, because all Dutch children are covered by public or private health insurance (Zwaanswijk, 2005). We therefore did not expect financial constraints to play a significant role in therapy continuation. But it is still possible that minor financial constraints related to practical obstacles (and not related to whether the therapy can be paid for) do play a significant role for adolescents.

Our finding that both ethnicity and parental SES had a predictive value for dropout despite being controlled for each other is an interesting addition to the debate on the role of ethnicity and SES in (youth) mental health care. Because both variables are correlated, many authors state that SES variables actually explain the differences (on for instance prevalence of psychiatric disorders or accessibility of mental health care institutions) between ethnic groups, or that we are actually talking about ethnic or cultural variables when SES differences are found (Cooper, 2002; Kamperman, Komproe, & De Jong, 2007; Stronks & Kunst, 2009; Stronks, Ravelli, & Reijneveld, 2001). The present study does not confirm nor invalidate these statements. It was rather found that both variables are important, independent, contributors in forming a risk profile for dropout.

In the present study, older age was a risk factor for dropout. Specifically, adolescents dropped out more often than children, and older adolescents dropped out more often than younger adolescents. This is not in accordance with the findings in our meta-analysis (De Haan, et al., 2013) where the overall effect sizes for the predictive value of age were small and non-significant. In addition, male adolescents were found to have a higher chance to complete therapy and a lower chance to drop out than female adolescents. This is also contradictory to the findings from our meta-analysis, where male gender was a significant general predictor for

dropout, although the overall effect size was small. It might be that differences in the samples (e.g., former studies were not conducted in The Netherlands, other ethnic groups were differentiated, in present study all youth have health insurance) can (partly) explain the different findings.

The finding that children with more severe externalizing problems were more likely to be referred to other services than to drop out, contrasts with results from former studies where a higher presence of externalizing problems usually elevated the risk to drop out. However, in these former studies the presence or level of externalizing problems was only compared between dropouts and completers, while in the present study the predictive value of higher externalizing scores was found for the referral group as opposed to the dropout group. Besides, the odds ratios showed that the chance was only a little higher. Indeed, referrals inside the organization most often concerned referral to the (day-care) clinics for conduct problems and the clinic for crisis intervention. With respect to institutions outside the organization, the patients were most often referred to a specialized institution for youth with mild intellectual disabilities, a preventive care site, and a forensic mental health care institution. Apparently, externalizing problems were in some cases too serious to be treated in the outpatient departments, and patients were therefore referred to an appropriate (day-care) clinic. In other cases, the externalizing problems were apparently associated with existing or perceived intellectual disabilities, or it was decided that only an appropriate training (e.g., to learn how to cope with externalizing problems) was needed at the preventive care site. In some cases, the patient was apparently convicted for a delinquent activity (that was related to the externalizing psychiatric problem) during treatment, and therefore the treatment had to be continued at the forensic setting.

Some conclusions and clinical implications could be derived from the above. Youth mental health care professionals from both inside and outside the Netherlands should be aware of several child, parent and family characteristics when treating children and adolescents. For patients with certain characteristics (i.e., a minority background, a lower socioeconomic status, a higher externalizing problem severity, and being older or being female), professionals can bear in mind that there is an increased risk for these patients to drop out of therapy or to be referred to another institution. These characteristics are hard to influence however since they are 'static', our first recommendation is therefore mainly to be aware of these characteristics and pay extra attention to cues on the patient or parent not willing to continue therapy. When

these cues are timely observed, the dropout van possibly be prevented. Although this does not derive directly from our results, we propose that clinicians could proactively engage in problem-solving with the family if there are potential obstacles to treatment, and they could invite the family to explore some of the factors that might interfere with continuing therapy (e.g., effects of ethnic/cultural background, low SES, etcetera). In addition, therapists could further educate themselves on potential impact of the dropout risk factors and consider obtaining additional supervision or advocating for patients as needed. Last, we also recommend that professionals inform on how the treatment continues and how it was terminated at the referred site in order to determine whether the referral was appropriate and successful or should be avoided the next time in similar cases.

Limitations and future research directions

Our study has several limitations. First, some of the ethnic groups were rather small. For instance, there were only four Moroccan adolescents and thirteen Turkish children. We therefore decided to combine groups and compose one group of Moroccan/Turkish patients and one group of Surinamese/Antillean patients. This can have implications for the significance and the generalizability of our results. On the other hand, our purpose was to analyze which ethnic groups were at a higher risk for dropout (and not to analyze the dropout risks for ethnic minorities as a whole), and we therefore chose to maintain a certain distribution of ethnic groups despite some groups still being small. In future research, we hope to include larger numbers of patients in each group.

Second, we could not take the third parental SES indicator (level of income) into account. As stated in the introduction, SES is usually measured by determining education, income, occupation, or a composite of these dimensions. We could only included two of these indicators, i.e., occupation and education. Including the third indicator would have given a more complete picture of the effect of SES, but unfortunately information on this variable was not registered. We thus advocate that this third SES indicator will be included in future research.

Third, our focus here was on several child and family factors in relation to dropout, referral or completion. This leads to more knowledge about a dropout risk profile, which can in turn be used to provide extra attention to the at-risk patients to prevent them from dropping out. Of course, these child and family factors are not the only variables predicting dropout. This was confirmed by our results that only a small amount of variation was explained by the

variables include in the study. Indeed, several possible dropout predictors were missing that could have explained more variance (e.g., therapy and therapist variables). We advocate that in future dropout studies, important therapy and therapist variables (e.g., the therapeutic relationship, patient/family perception of the therapist, perceived relevance of the treatment according to the patient/parent, agreement regarding the therapy goals, for an overview see De Haan et al, 2013) are taken into account together with the important child and family variables that were examined in present study. Only then can we generate a complete picture on the risk profile for dropout or referral.

Fourth, we did not have information on how treatment was terminated at the referred site or whether the referral was appropriate, we thus do not know whether being referred has positive or negative consequences. It is interesting for professionals to become aware of this phenomenon and to think about the appropriateness of the referral. We recommend this information to be taken into account in future studies.

CHAPTER 8

Therapeutic relationship and dropout in youth mental health care with ethnic minority children and adolescents

Clinical Psychologist, 2014, in press

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Abstract

Background Dropout in youth psychotherapy is high, especially for ethnic minority patients. An important determinant of dropout is the quality of the therapeutic relationship. This study evaluated the association between the therapeutic relationship and dropout in therapy with ethnic minority youth.

Method Our study was done in a community youth mental health care institution. 70 patients were included who were dropouts or completers of psychotherapy. The therapeutic relationship was measured with an instrument (C-SRS) that was completed each session by the patient. For each patient the treatment termination status (dropout or completer) was indicated. A General Estimation Equation (GEE) was conducted to indicate whether the course of total C-SRS scores during therapy differed for dropouts and completers.

Results The course of the scores differed significantly between dropouts and completers. Both groups started with similar scores, but on average the scores of dropouts decreased during therapy, while the scores of completers increased.

Conclusions Our results indicate that if there is a drop in the rated quality of the therapeutic relationship (i.e., monitor the difference between the present C-SRS score with the previous scores), the therapist should communicate this with the patient. This could lead to an improvement of the therapeutic relationship and a decrease in dropout.

Keywords: dropout; ethnic minorities; therapeutic relationship; youth mental health care.

Introduction

Premature termination or dropout of child and adolescent therapy is very common, with rates of 16% up to 69%, and is therefore generally recognized as a serious problem (Armbruster & Kazdin, 1994; Gopalan et al., 2010; Midgley & Navridi, 2006). In studies that compared dropout rates between ethnic groups, ethnic minority youth had even higher dropout rates than their ethnic majority peers (Kazdin, Holland, & Crowley, 1997; Kendall & Sugarman, 1997; Lamb, Anfield, & Sheeran, 2002; Miller, Southam-Gerow, & Allin Jr., 2008). More knowledge about determinants of dropout in child mental health care is relevant because it can result in more effective care (Dulmus & Wodarski, 1996; J. E. Wells et al., 2013). One of the more important determinants of dropout is the quality of the therapeutic relationship between the child or parent and the therapist (De Haan et al., 2013a; Garcia & Weisz, 2002; Hawley & Weisz, 2005; Kazdin & Wassell, 1998; J. Stevens et al., 2006). Indeed, developing effective therapeutic relationships with young patients and their family members may facilitate engagement and lessen resistance to treatment by providing a stable, accepting and supportive context within which therapy may take place (Karver et al., 2006), and there is evidence from a few studies that a negative or weak therapeutic relationship is predictive of therapy dropout (Zack et al., 2007).

There is much inconsistency in the definition of dropout being used across studies, and this might influence which dropout predictors were found per study (De Haan et al., 2013a; Warnick et al., 2012; Zack et al., 2007). It is therefore important for researchers to be aware of the impact of the chosen definition. For instance, when parents think that the child's treatment goals are reached and therapist disagrees, it is uncertain whether these patients should be counted as dropouts or completers. Therefore both the opinion of the therapist, as well as that of the parent and adolescent patient should be used to define dropout (De Haan et al., 2013a). A further problem in comparing studies on the therapeutic relationship and dropout, is that the time at which the therapeutic relationship was measured varies considerably. In some studies the quality of the relationship was measured retrospectively by the parents completing a questionnaire at the end of therapy (J. Stevens et al., 2006). In other studies, both the parent and the child were administered a questionnaire at the end of therapy (Hawley & Weisz, 2005). In most studies however, trained observers rated the therapeutic alliance at one or two therapy sessions during the course of therapy (Cordaro et al., 2012; Robbins et al., 2006; Robbins, Turner, Alexander, & Perez, 2003; Shelef et al., 2005). All these methods have shortcomings. Measuring the relationship by observers is a rather limited approach as it does not take the

patients' opinion about the relationship directly into account, and it depends on the observer how the relationship is rated. Measuring the relationship after therapy has ended, can give biased information as it might be influenced by the way patients and parents feel at that termination point. In addition, parents can hold a different view at the therapeutic relationship than the child. In their review on the therapeutic relationship within youth therapy, Zack et al. (2007) therefore stated that it is better to measure the therapeutic relationship during several sessions of the therapy process, instead of at the end of therapy or during only one or two sessions.

Most available therapeutic relationship measures for child therapy are parent-report measures. An exception is the Therapeutic Alliance Scale for Children and Adolescents (TASC/A), which was specifically designed for use with children and adolescents (DeVet, Kim, Charlot-Swilley, & Ireys, 2003; Kazdin, Marciano, & Whitley, 2005; Shirk & Saiz, 1992). This scale however, was designed to be administered at only one or two sessions during therapy. The only available child-report instrument that can measure the therapeutic relationship during all sessions, is the Child version of the Session Rating Scale (B.L.; Duncan et al., 2003; S. D. Miller & Duncan, 2004). This instrument is a specific clinical tool for day-to-day use. In addition, the child version of this tool makes it possible to assess the child's self-reported relationship with the therapist.

Most of the described studies in the review of Zack et al. (2007) were conducted in randomized control trials (RCT's). The information obtained in these studies is very relevant, but some groups of patients (especially minority patients) were hardly included or even excluded from this research because of the strict inclusion criteria that are used for selecting patients in RCT's (Flicker et al., 2008; Hogue, Dauber, Stambaugh, Cecero, & Liddle, 2006; Pereira et al., 2006). Because many authors have described the importance of ethnic and cultural background in psychotherapy with ethnic minorities (Leach & Aten, 2010; Pedersen, Draguns, Lonner, & Trimble, 2008), and several studies showed higher dropout rates among ethnic minority groups, it is important to study the association between the therapeutic relationship and dropout for ethnic minority patients.

Due to the above mentioned reasons, the aim of our study was to extend and specify insights on the association between the therapeutic relationship and dropout in psychotherapy with ethnic minority children and adolescents. In accordance with Zack et al. (2007), we measured the therapeutic alliance during several sessions of psychotherapy with the Child

version of the Session Rating Scale (C-SRS) (B.L.; Duncan, Sparks, Miller, Bohanske, & Claud, 2006). The few studies evaluating the (C-)SRS have confirmed the psychometric quality and usability of the instrument, or showed that there was an association between the therapeutic relationship and therapeutic chance or outcome (i.e., whether the problems and complaints of a patient would decrease or incline) (Campbell & Hemsley, 2009; B.L.; Duncan et al., 2003; Sundet, 2012). Until now, the association between the (C-)SRS and dropout has not been studied though. It was also shown that the scores on the (C-)SRS were not influenced by whether the patient knew that the scores would or would not be observed by the therapist, or whether the questionnaires were completed in presence of the therapist, nor were the (C-)SRS scores significantly correlated with a measure of social desirability (Reese et al., 2013). The practical goal of our study was to analyse whether the development in the therapeutic relationship, as measured by the C-SRS, is different for dropouts and completers. Our study was done in a community based youth mental health care institution in a big city in the Netherlands.

Method

Participants

I-psy - de jutters is the intercultural specific department of Stichting De Jutters, a YMHC centre in The Hague (one of the three main cities of The Netherlands). Our study included 70 patients that were treated at this YMHC centre in 2008 and 2009. Upon arrival, patients and their parents were asked to sign a consent form to indicate that their data could be used anonymously for scientific research.

The age of the patients was 6-20 years ($M = 13$, $Sd = 3.5$). 27 patients (38.6%) were boys, and 43 patients (61.4%) were girls. 12 patients were diagnosed with a mood disorder (17.1%), 12 patients with parent-child relational problems (17.1%), 11 patients with an adjustment disorder (15.7%), 5 patients with an anxiety disorder 7.1%), 4 patients with a conduct disorder (5.7%), 3 patients with a hyperactivity disorder (4.3%), and 23 patients with other disorders (32.9%). The diagnoses were further grouped into four diagnostic groups, i.e. internalizing problems (mood disorders, anxiety disorders) (24.3%), externalizing problems (conduct disorders, hyperactivity disorders, adjustment disorders) (25.7%), parent-child relational problems (17.1%), and other disorders (32.9%).

The ethnic background of the patients and the therapists was specified as follows: if the country of birth of both parents was the Netherlands (regardless of the country of birth of the child), the

child was seen as native Dutch. If one or both parents born abroad, the child was seen as an ethnic minority. All the 70 included patients in our study were of an ethnic minority background: 22 were Turkish, 15 were Surinamese, 16 were African, and 17 were from other countries (i.e., India, Pakistan, Iraq, Iran, Afghanistan, China, Bulgaria, Aruba).

The three therapists (all female, aged 27-32) had an Iraqi, a Turkish and a Surinamese background. 20 patients were treated by the Iraqi therapist, 28 patients were treated by the Turkish therapist, and 22 patients were treated by the Surinamese therapist. The three therapists had similar years of experience, i.e., the Iraqi and the Turkish therapist had been working for five years as a psychologist, while the Surinamese therapist had been working for three years as a psychologist.

Measures

The Child Session Rating Scale (C-SRS) (B.L.; Duncan et al., 2006; S. D. Miller & Duncan, 2004) is a four-item visual analogue instrument with emoticons (smiley and frowny faces) and child friendly language to aid the child's understanding. The version for adolescents uses a plus (+) and a minus (–) sign (in concurrence with the adult version of the SRS) in stead of the emoticons. The C-SRS has been translated in Dutch by Hafkenscheid et al. (2006). The scale is suitable for youth of various ethnic origins, because of the universality of the emoticons. The Dutch C-SRS has already been used in research in the Netherlands (Boon, De Boer, & Ravestijn, 2012). The reliability (internal consistency) of the Dutch version of the C-SRS was satisfactory (Cronbach's $\alpha = .86$).

In the C-SRS, the therapeutic relationship is defined with three interacting elements: (a) a relational bond between the therapist and patient; (b) agreement on the goals of therapy; and (c) agreement on the tasks of therapy. The C-SRS translates these theoretical ideas into four 10-cm visual analogue scales, with instructions to place a hash mark on a line with negative responses depicted on the left (frowny face or - sign) and positive responses indicated on the right (smiley face or + sign). First, a relationship scale rates the session on a continuum from "The therapist did not listen to me" to "The therapist listened to me". Second is a goals and topics scale that rates the session on a continuum from "We did not do or talk about the things I wanted to do or talk about" to "We did do or talk about what I wanted to do or talk about". Third is an approach or method scale requiring the patient to rate the session on a continuum from "I did not like what we did today" to "I liked what we did today". Finally, and reiterating,

the fourth scale looks at how the patient perceives the session in total along the continuum: “Overall, today’s session was not right for me” to “Overall, today’s session was right for me”.

For each session, the total score can be somewhere between 0 and 40: the individual scores on each of the four items (the 10 cm line represents scores between 0 and 10) are added up. High average total scores or an increasing line in the total scores, is an indication for a high quality or an improving quality of the therapeutic relationship.

Procedure

The C-SRS was presented to the patient at the end of each therapy session, with the remark that the child could fill in the questionnaire and drop it in a closed box so the therapist would not be able to see what the child answered. With this method, the likelihood of the child giving socially desirable answers was decreased. Our purpose was to let the patients fill in the form during every therapy session. Although therapists sometimes forgot to hand out the C-SRS and the forms were not always returned, in general the C-SRS was completed during most of the therapy sessions.

The first C-SRS was completed during the first therapy session. The C-SRS that was completed during the session that appeared to be the last one (planned in the case of completers and unplanned in the case of dropouts), was marked as the last C-SRS. It largely depended on the length of therapy how many C-SRS forms the patient finally completed.

Termination status: dropout and completion of therapy

After therapy had ended, both the therapist and the patient (or in the case of children under the age of 12, the parents) were asked why the therapy had ended. Only when both the therapist and the patient agreed that therapy goals had been reached, or when both agreed to terminate while therapy goals had only partly been reached, was the patient classified as a ‘completer’. When both stated that therapy was not completed yet, or only the patient or only the therapist stated that therapy was not completed, the exact reasons for termination were examined. In these cases, the patient was classified as a ‘dropout’ when the patient prematurely terminated therapy but the therapist did not agree on this termination (i.e., according to the therapist the therapy should have been continued). The intention was to classify the patients as ‘unilaterally terminated by the therapist’ when the therapist wished to terminate therapy while the patient wished to continue. Among the included 70 patients there were no cases of ‘unilaterally

terminated by the therapist'. Finally, 25 patients were classified as dropouts, and 45 patients were classified as completers.

Statistical analyses

All analyses were performed using the Statistical Package for the Social Sciences, version 20.0 (SPSS, 2012). Our study consisted of longitudinal repeated measurements (the scores on the C-SRS forms) within the same subjects, therefore a General Estimation Equation (GEE) was conducted to indicate whether the course of total C-SRS scores during therapy differed for dropouts and completers.

First, a t-test was conducted to analyse whether the first C-SRS score differed significantly between dropouts and completers. The purpose was to indicate whether dropouts and completers were, at the start of therapy, similar groups with respect to their rated quality of the therapeutic relationship. Then, separate univariate GEE analyses were carried out to analyse the relationship between several child and therapy variables and the total C-SRS scores. This way it was analysed which of these variables were possible covariates in the association between the C-SRS scores and the treatment termination status. The child and therapy variables were age, gender, child ethnicity (i.e., four dummy variables were created for the four main ethnic groups: Turkish, Surinamese, African, and other), therapist (i.e., three dummy variables were created for the three different therapists), therapy length (both total number of sessions as total number of weeks in therapy were taken into account), and the diagnosis (i.e., four dummy variables were created for the four main groups of diagnoses: Internalizing problems, Externalizing problems, Relational problems between parent and child, and other problems).

Last, a multivariate GEE analysis was conducted to analyse the association between the course of total C-SRS scores and the treatment termination status. Dependent on the length of therapy and the total number of sessions, the patients differed in how many C-SRS forms they completed. They also differed in the time that passed between completing two subsequent C-SRS forms, i.e., some patients came to therapy every week and thus completed a form every week, while other patients came once a month or on an irregular basis. Therefore a variable 'Time' was created. For each patient, the value of this time variable was zero at the first session. Next, the value of the time variable represented the number of weeks between this first session and every subsequent session until the last session. The variable 'Time' was thus an indication for the duration of therapy in weeks. In the multivariate GEE, the variable 'Treatment

Termination' (dropout = 1 and completion = 0), the variable 'Time', and an interaction variable 'Time x Treatment Termination' were taken as independent variables, with the 'total C-SRS score per session' as the dependent variable. The variables that had a significant association with the C-SRS scores according to the univariate GEE analyses, were taken as covariates in the multivariate GEE analysis.

Results

Descriptives

All seventy patients completed the C-SRS at least three times ($M = 8$, $Sd = 4.9$). The maximum of completed C-SRS forms was 26 times: 97% of the patients completed the C-SRS 3 to 17 times, two patients completed it 21 or 26 times. Dropouts ($N = 25$) completed the C-SRS on average 7,16 times and completers ($N = 45$) completed it on average 8,49 times ($t(67.59) = 1.253$, $p = .214$). Dropouts had on average 7,32 therapy sessions and completers had on average 8,71 therapy sessions ($t(67.49) = 1.258$, $p = .213$). Dropouts stayed in therapy for on average 23,24 weeks, and completers for 28,69 weeks ($t(67.39) = 1.534$, $p = .130$). No significant difference was found ($t(68) = -0.39$, $p = .37$) between the first C-SRS scores for dropouts ($M = 33.4$, $Sd = 5.9$) and completers ($M = 33.9$, $Sd = 5.6$). Both groups thus started with similar scores on the quality of the therapeutic relationship.

Univariate General Estimation Equation analyses

Only total number of weeks (Wald $\chi^2(1) = 4.735$, $p = .030$), being treated by the Surinamese therapist (Wald $\chi^2(1) = 4.695$, $p = .030$), and being diagnosed with 'parent-child relational problems' (Wald $\chi^2(1) = 11.318$, $p = .001$) had a significant association with the C-SRS scores. These three variables were thus taken as covariates in the multivariate GEE analysis.

Multivariate General Estimation Equation analysis

The Wald χ^2 test indicated that, when corrected for the covariates, the interaction variable 'Time x Treatment termination status' was significant (Wald $\chi^2(1) = 4.009$, $p = .045$). The association between time and the course of the total C-SRS scores per session thus differed significantly between dropouts and completers. Total C-SRS scores decreased by .06 points per week on average for dropouts, but increased by the same amount per week for the completers.

Table 1: Multivariate GEE analysis

| | Wald chi ² | df | β | SE |
|---|-----------------------|----|--------|--------|
| (Intercept) | 360.980** | 1 | 33.825 | 1.7803 |
| Time x Treatment termination status | 4.009* | 1 | .115 | .0574 |
| Time | -1.123 | 1 | -.055 | .0521 |
| Treatment termination status | .004 | 1 | -.109 | 1.6726 |
| Surinamese therapist | 1.004 | 1 | 1.611 | 1.6076 |
| Diagnosed with parent-child relational problems | 7.719** | 1 | -2.664 | .9556 |
| Total number of weeks | .767 | 1 | .030 | .0342 |

** $p < .01$; * $p < .05$

The Wald chi² of the variable ‘parent-child relational problems’ was also significant, which indicated that the diagnosis of the patient had a significant association with the total C-SRS scores, even when several other variables were taken into account. Indeed, patients diagnosed with parent-child relational problems had on average significant higher C-SRS scores than the ones with other diagnoses ($t(68) = 2.589, p = .012$). There was no significant difference in treatment termination status between patients with and without this specific diagnosis though ($\chi^2(1) = .090, p = .764$).

Discussion

The aim of our study was to extend the knowledge on the association between the quality of the therapeutic relationship and treatment termination status with ethnic minority children and adolescents in community institutions. We measured the therapeutic relationship during psychotherapy with the child version of the Session Rating Scale (C-SRS), enabling the child to rate the therapeutic relationship with its therapist. To our knowledge this is the first study using the C-SRS to analyse the association between the quality of the therapeutic relationship and dropout with youth.

No differences were found in the initial scores of the C-SRS, indicating that dropouts and completers did not differ in the way they experience the therapeutic relationship at the start of therapy. The development of C-SRS scores during the course of therapy however, was different for the two groups: completers showed improving scores of the therapeutic relationship during the course of therapy, while dropouts showed declining scores during the course of therapy.

These results indicate that an improving therapeutic relationship during the course of therapy is associated with patients completing therapy, while a decreasing quality of the therapeutic relationship during the course of therapy is associated with the patient dropping out. As stated in the introduction, most former studies on the quality of the therapeutic relationship focused on the association between this relationship and the outcome of therapy (i.e., whether there is an increase or decrease in psychiatric problems). The few studies that focused on the association between the quality of the therapeutic relationship and the completion or dropout of therapy indeed also found that this association was present. These former studies were mostly studies on substance abusing adolescents though, and the quality of the therapeutic relationship was often measured in retrospect at the end of therapy, or by trained observers that rated the therapeutic alliance at one or two therapy sessions during the course of therapy. For the second approach, a research setting is needed, it is therefore not useful in clinical practice. Our study showed that a rather short instrument, which can be easily applied in clinical practice and which is completed by the child or adolescent patient, can be a very valuable tool to measure the quality of the therapeutic relationship.

Several other findings are worth discussing here. For instance, the total number of therapy sessions and the total number of weeks in therapy did not differ significantly between dropouts and completers. This finding might indicate an alternative explanation for the association between the course of C-SRS scores and treatment termination status. Indeed, after an average of seven to nine sessions had been completed, the therapist judged that for some patients the therapy had been fulfilled. Apparently, according to the therapists, the patients that became completers needed less therapy than the patients that became dropouts. This might indicate that the problems of the dropout group are more serious and more difficult to treat than the problems of the completer group. It might be easier to increase the quality of the therapeutic relationship with the patients that become completers, because for these patients improvement of psychiatric problems is reached earlier than for the dropout patients. The completer patients might therefore be more satisfied with the treatment and the therapist, which leads to increasing scores on the C-SRS forms. This indicates that not the quality of the therapeutic relationship itself leads to completion or dropping out of therapy, but that this association is influenced by the seriousness of the problem of the patient. Indeed, we also found that the diagnosis had a significant association with total C-SRS scores, i.e., patients that were diagnosed with child-parent relational problems had a higher average C-SRS score than the other patients.

According to the Diagnostic and Statistical Manual of Mental Disorders IV-TR (American Psychiatric Association, 2000), parent-child relational problems are less serious than the other categories of diagnoses in our study. We did not find an association between being or not being diagnosed with this specific diagnosis and treatment termination status. We therefore conclude that the course of total C-SRS scores during therapy, and thus the course of the quality of the therapeutic relationship, is an important indicator to monitor which patients might drop out of therapy.

There are thus some important implications for practical use. Our results indicate that if there is a drop in the rated quality of the therapeutic relationship (i.e., monitor the difference between the present C-SRS score with the previous scores), the therapist should communicate this with the patient (i.e., give feedback) and it might even be considered to arrange switching therapists. This method is called the Client Directed Outcome Informed (CDOI) method (B.L.; Duncan, Miller, & Sparks, 2004; S. D. Miller et al., 2006). In our study, the instrument was used for research purposes and no feedback to the patient was given during therapy. Based on our results, the next step is to use the instrument in combination with the CDOI method. It is probable that giving feedback to the patient about the course of the therapeutic relationship will lead to an improvement in this relationship, and will then lead to a decrease in dropout and an increase in completion of therapy. The therapist might present the graphics of the declining or improving scores during therapy and discuss possible hurdles and ways to improve the quality of the relationship with the patient. It is likely that this can help to prevent dropout, thus increasing the effectiveness of therapy. Possibly, a phone call by the therapist after a 'bad session' can make the difference between a successful therapy and one that is terminated prematurely.

Our study has several limitations. Our sample was rather small and we did not use the C-SRS consistently in each session. We therefore invite other researchers to study the C-SRS in clinical practice in the hope that our results will be replicated and the value of the instrument can be affirmed. The fact that our sample was rather small also inhibited us to study the association between the four separate items of the C-SRS and treatment termination status. We suggest that this should be done in future research, as it could be that different aspects of the quality of the therapeutic relationship relate differently with treatment termination status. Another shortcoming is that we did not analyse the parent-therapist relationship. Some former studies found that only parent-therapist relationship was predictive for dropout and not child-

therapist relationship (Hawley & Weisz, 2005). It might therefore be best to have both the parent and the youth patient as the respondents (Zack et al., 2007) in order to get both the child's or adolescent's and the parent's perspective on the quality of the therapeutic relationship. Similarly, it would have been informative to include therapist reports of the quality of the therapeutic relationship as well. We recommend that this should be done in future studies. Unfortunately, as far as we know there is no instrument available that can measure the therapist's perspective on the quality of the therapeutic relationship during all sessions. The best available alternatives are the therapist version of the Therapeutic Alliance Scale for Children and Adolescents (TASC/A) (Shirk & Saiz, 1992), or the therapist version of the Working Alliance Inventory (WAI) (Horvath & Greenberg, 1989). A third limitation is that it is unclear whether these results found in a sample consisting of immigrant patients can be generalized to therapy with majority patients. While most studies in the field are performed with ethnic majority populations and it is assumed that the results are valid for ethnic minority populations too, the limitation of our study is the other way around. Indeed, in the study of Reese et al. (2013), mostly ethnic majority patients were included and it was thus stated that the SRS should be studied with racial/ethnic minority patients. This study focused on adult patients though. We therefore recommend research on the association between dropout and the quality of the therapeutic relationship in samples consisting of both ethnic majority and minority children and adolescents, so the results between the various ethnic groups can be compared.

Nevertheless, we hope that the C-SRS can help therapists to timely intervene when the therapeutic relationship may go astray, which is all the more important in the challenging context of therapy with ethnic minority youth. Similar to Reese et al. (2013), we conclude that the (C-)SRS can be a very useful measure for evaluating the therapeutic relationship, and that the course of total C-SRS scores during therapy (and thus the course of the quality of the therapeutic relationship) is an important indicator to monitor which patients might drop out of therapy.

CHAPTER 9

General Discussion

The overall aim of this thesis was threefold. The first aim was to describe the utilization of Youth Mental Health Care (YMHC) in the Netherlands: whether there are differences in this utilization between ethnic groups, between children and adolescents, between males and females, and whether socioeconomic factors play a role in this utilization. The second aim was to describe ethnic differences with regard to the DSM-classifications of the patients. And the third aim was to analyze ethnic differences in premature termination of therapy of YMHC patients.

A general underutilization of YMHC services has frequently been described (Boon et al., 2014; Meltzer et al., 2000; Zachrisson et al., 2006). Because youth psychiatric disorders can cause serious damage later in life, it is of utmost importance to gain knowledge on the causes of underutilization of YMHC (Alonso et al., 2013; Domburgh, 2009; Dulmus & Wodarski, 1996; Gosden et al., 2003; Kazdin & Wassell, 1998; Sytema et al., 2006). In several countries, underutilization of YMHC was shown to be substantially higher for ethnic minority youth than for their ethnic majority peers (V. C. Copeland, 2006; Garland et al., 2000; Goodman et al., 2008; Ivert et al., 2013; Kodjo & Auinger, 2004). In addition, psychiatric disorders are often under- or misdiagnosed, especially in ethnic minority youth (Begeer et al., 2009; Crone et al., 2010; Kreps, 2006; Martin, 1993; Reijneveld et al., 2005; Van Ryn & Fu, 2003). Another important factor that contributes to psychiatric disorders not being (correctly) treated, is the fact that many treatments are not completed (Baruch et al., 2009; Lai et al., 1998; Luk et al., 2001; Midgley & Navridi, 2006). When children drop out of psychiatric treatment, their disorders might persist or even worsen later in life (W. E. Copeland et al., 2013; Dulmus & Wodarski, 1996; Gosden et al., 2003; Reis & Brown, 1999). In order to prevent these negative consequences of treatment dropout, it is important to gain knowledge of its determinants.

Three data sources were used: data of a patient population, data of the general population in the same area (for the empirical studies), and data of published studies on dropout (for the review and meta-analytic study). For the patient population, data were used of all patients that were registered at two YMHC institutions in The Hague (i.e., *De Jutters*, a general YMHC institution, and *i-psy de jutters*, an intercultural specific YMHC institution) in 2008 and 2009. The data of the general population of The Hague and its surroundings in 2008 and 2009 were drawn from municipality files. Data of all published studies (1994-2013) on dropout in child and adolescent psychiatry were used to conduct a meta-analytic review and a literature review. In this general discussion the main findings of the whole study are summarized and

interpreted, limitations are addressed, and implications for clinical practice and future research are suggested.

Summary of findings

After the introduction in the first chapter, we described the utilization of YMHC services for the different ethnic, age and gender groups in The Hague in the second chapter. Because at the time of this study the two described institutions were the only two existing YMHC institutions in The Hague, we had almost complete information of all youths that received YMHC treatment in that city. It might be that some youth receive YMHC outside of The Hague and were not included in our analyses. There is no reason however to expect that these are especially patients from specific ethnic (minority) groups, and therefore the proportion of utilization rates between ethnic groups will not differ significantly from the rates presented in this study. We analyzed the ethnic composition of the total patient group of the two YMHC institutions in 2009, and compared this to the general population of The Hague. Relative risk ratios (likelihood) of YMHC utilization for ethnic minority groups were calculated with the native Dutch youth as the reference group. Age specific and gender specific results were presented. The results showed that the use of YMHC services was unequally distributed over the different ethnic, gender and age groups. During childhood (age <12) most groups of ethnic minority girls and boys were less likely to use YMHC than native Dutch boys and girls. Nevertheless, native Dutch girls also made less use of YMHC institutions than would be expected according to the estimated prevalence rates of psychiatric disorders. Only for native Dutch boys the utilization percentage was approximately equal to the estimated prevalence rate of psychiatric disorders. During adolescence, all ethnic groups were equally underrepresented in YMHC. The results thus indicated that adolescents of all ethnic groups, including the native Dutch, are being poorly reached by YMHC.

In the third chapter, the association between ethnic background, socioeconomic status (SES) and YMHC utilization was investigated by analyzing the percentage of YMHC patients per district of The Hague. In addition, the number of youth inhabitants per district, the ethnic background of the inhabitants, and the district's average spendable year income were retrieved from municipality files. The average spendable annual income per district was used as an indicator for SES, and the percentage of native Dutch inhabitants was used as an indicator of the ethnic composition of that district. The results indicated that the percentage of children and

adolescents in treatment was strongly associated with ethnic composition of the districts, and that the district's income level had almost no effect. Findings thus suggest that on district level, ethnic composition is more relevant in the utilization of YMHC than socioeconomic aspects. Because no information about the SES of the patients was available, the possibility remains however that on an individual level socioeconomic factors do play a role. For instance, within districts with a low average year income, ethnic minority youth with a higher SES might enter care more easily than minority youth with a lower SES.

In the fourth chapter differences between ethnic groups in the received DSM classifications of the patients of the two YMHC institutions were assessed. Odds ratios (chances) on DSM-classifications for ethnic minority patients were calculated with the native Dutch patients as the reference group. The patients were divided into two groups: 1) a group of patients with only V-codes, indicating that no classification of a psychiatric disorder was registered. 2) a group of patients diagnosed with one or more psychiatric disorders on Axis I. Within this second group, a subcategory of patients with more than one psychiatric disorder (i.e., comorbid disorders) were identified. The results showed that, compared to native Dutch patients, ethnic minority patients received co-morbid diagnoses less often. In contrast, ethnic minority patients more often received V-codes only, indicating that problems such as 'relational or communication problems between child and parent' or 'other social/environmental problems' were identified as the main reason for treatment. It is possible that these V-codes were only given temporarily because clinicians needed more time to decide on a certain diagnoses. Therefore the patients were exclusively allocated to the group of 'only V-codes' when during the whole period of treatment the V-code remained the only classification.

From the fifth chapter on, the focus shifted to the way treatments are terminated. A meta-analytic review and a literature review on premature termination or dropout were done and described in the fifth and sixth chapter. Randomized control trial (RCT) studies (efficacy designs) were compared with practice-based studies (effectiveness designs). In addition, we compared studies that used a dropout definition based on the opinion of therapists with those that took the number of predetermined completed sessions as a criterion. The meta-analytic review (chapter 5) showed that dropout percentages were influenced by study design, i.e. percentages were lower in RCT studies than in practice-based studies. Within practice-based settings, the dropout percentages were lower when the therapist's opinion was used than when a predetermined number of sessions was used as the dropout criterion. In RCT studies on the

other hand, the dropout percentages were similar for studies using the first or the second definition. Additionally, we studied three groups of predictors, i.e. pre-treatment child variables, pre-treatment family/parent variables, and treatment/therapist variables. It appeared treatment/therapist variables (e.g., therapeutic relationship) were overall stronger dropout predictors than the pre-treatment child variables and pre-treatment family/parent variables (e.g., ethnic background, family composition).

In the sixth chapter, a literature review was conducted with the goal to structuralize the knowledge on psychotherapy dropout with ethnic minority youth. This review showed there was an increased dropout chance for some ethnic minority patients compared to ethnic majority patients. Especially an African American background was shown to increase the dropout chances, although results were inconsistent. Therefore firm conclusions could not be given. Also, the results indicated that an Asian American or a Hispanic/Mexican American background may not be a risk factor for dropping out. The results were again inconsistent however, and there were too little studies that analyzed Hispanic/Mexican Americans and Asian Americans as separate groups. Because most of the studies were done in the United States, much remains unclear about ethnic minority background being a risk factor for dropping out in other countries. A second conclusion is that predictors of dropout differ between ethnic groups. For instance, some child and family pre-treatment variables predicted dropout in Caucasian families but not in African American families. For Hispanic families, an unbalanced therapeutic alliance (measured during the first session) was found to relate to dropout, while this was not so for Caucasian families. Next, the results indicated that for none of the ethnic groups, a lower socioeconomic status is a risk factor for dropping out. It also appeared that an ethnic match between therapist and the parent or the patient lessened the chance to drop out in some, but not in all cases. For instance, the age of the patient was an important factor in the effect of the presence/absence of an ethnic match between the patient and the therapist, i.e., an ethnic match decreased the dropout risk for adolescents but not for children.

In the last two chapters, several risk factors for dropout were analyzed within the two YMHC settings in The Hague. The study described in chapter 7 was conducted as *De Jutters*. Three dropout risk factors (ethnic minority status, a lower socioeconomic status (SES), and higher problem severity) were examined for children and adolescents separately. Termination status was divided in three categories: 1) referred patients (i.e., referred to another department of the YMHC institution or to another youth care facility outside YMHC); 2) dropouts; and 3)

completers. The results showed that for children, Moroccan ethnicity and higher externalizing scores were risk factors for being referred. For adolescents, Surinamese ethnicity, being older, and lower SES levels were risk factors for dropout. Chapter 8 focused on another dropout risk factor; the quality of the therapeutic relationship. This study was conducted at *i-psy de jutters*, where only patients with an ethnic minority background are treated. The results indicated that a perceived increase in quality of the therapeutic relationship during the course of therapy was associated with patients completing therapy, while a perceived decrease in quality of the therapeutic relationship during the course of therapy was associated with patients dropping out.

Interpretation of findings

To determine who is in need for psychiatric care, several authors propose to use impairment criteria in addition to meeting symptom criteria, i.e., a mental health problem that causes impairment in daily functioning to such a degree that treatment in mental health care is needed (Brauner & Stephens, 2006; Evans et al., 2013; Reed, Correia, Esparza, Saxena, & Maj, 2011; Roberts et al., 1998). Two surveys among psychiatrists and psychologists worldwide showed that most clinicians agree that concepts of severity and impairment are essential to be included in disorder classification systems, although there was little agreement as to how or why (Evans et al., 2013; Reed et al., 2011). With respect to children and adolescents, too little research on prevalence rates has been done to warrant firm conclusions. Still, estimations of prevalence rates adjusted for impairment can be used for the purpose of the interpretation of our findings. Especially because prevalence rates appear to be quite similar across countries and across ethnic groups (Ivanova et al., 2007; Rescorla et al., 2007; Rutter & Stevenson, 2008). Typically, the prevalence rates adjusted for impairment are less than half the prevalence rates based on only meeting symptom criteria (Costello, Mustillo, Erkanli, Keeler, & Angold, 2003; Fombonne, 2002; Ford, Goodman, & Meltzer, 2003; Friedman et al., 1996; Heiervang et al., 2007; Merikangas et al., 2010; Roberts et al., 1998; Roberts, Roberts, & Xing, 2006; Verhulst, Van der Ende, Ferdinand, & Kasius, 1997). To determine who is in need of treatment in a YMHC facility, and thus to determine whether underutilization is present, the prevalence rates adjusted for impairment and need for treatment should be used (see table 1). Of course, these are only estimations and we cannot give a definite picture on to what extent different groups of youth (e.g., with respect to ethnic background, age, gender, type of disorder) are receiving the care they need. In addition, some might receive non-psychiatric care outside of YMHC facilities which

can be sufficient for them. Still, the estimated adjusted prevalence rates are functional for our goal; to determine the differences between ethnic groups, between children and adolescents, and between boys and girls in the (possible) underutilization of YMHC.

Table 1: Prevalence rates of psychiatric disorders

| | Children | | Adolescents | |
|-------------------------------|----------|--------|-------------|---------|
| | Girls | Boys | Girls | Boys |
| Prevalence rates (%) | 5-11 | 8.7-22 | 7.5-17 | 13.5-17 |
| Adjusted prevalence rates (%) | 2.5-5.5 | 4.5-11 | 3.5-9 | 7-9 |

Table 2: YMHC utilization percentages

| Ethnic background | Children | | Adolescents | |
|----------------------|----------|------|-------------|------|
| | Girls | Boys | Girls | Boys |
| Native Dutch | 3,2 | 8,4 | 3,2 | 3,1 |
| Surinamese | 2,4 | 5,4 | 3,8 | 2,6 |
| Turkish | 1,7 | 4,5 | 2,6 | 2,5 |
| Moroccan | 0,8 | 4,0 | 2,3 | 2,1 |
| Antillean and Aruban | 2,3 | 7,4 | 3,4 | 2,9 |
| Other African | 2,1 | 4,2 | 3,3 | 2,9 |
| Other western | 1,9 | 4,0 | 2,9 | 1,9 |
| Other non-western | 2,6 | 3,6 | 2,9 | 3,2 |
| Total | 2,6 | 6,5 | 3,1 | 2,8 |

The average YMHC utilization rate for female children in our study is 2.6% (see table 2). As the adjusted prevalence rates range between 2.5% and 5.5%, this indicates there might be an overall minor underutilization of YMHC for girls. For native Dutch girls (utilization percentage of 3.2), and in a lesser extent for other non-western girls (utilization percentage of 2.6) the underutilization may not be present. For the other ethnic minority girls (i.e., Moroccan, Turkish, Surinamese, Antillean/Aruban, other African, other western) the underutilization seems to be present though (utilization percentages ranging from 0.8 to 2.4).

The average YMHC utilization rate for male children in our study is 6.5% (see table 2). The adjusted prevalence rates ranged between 4.5% and 11%, indicating there might not be an overall underutilization of YMHC for male children. This especially accounts for Dutch,

Antillean/Aruban, and Surinamese boys for whom the utilization percentages are 8.4, 7.4, and 5.4. This does not account for the other five ethnic groups (i.e., Turkish, Moroccan, African, other non-native western, other non-western) where utilization percentages are much lower (ranging from 3.6 to 4.5). For these last five ethnic minority groups there might thus be underutilization. The average YMHC utilization rate for female adolescents is 3.1% (see table 2), which indicates an overall underutilization for this group (adjusted prevalence rates range from 3.5% to 9%). Again, this underutilization is not extremely high though. Here no clear differences between ethnic groups are found. The average utilization rate for male adolescents is 2.8% (see table 2), which indicates the highest rate of underutilization of YMHC (adjusted prevalence rates range from 7% to 9%). Again, this accounts for all ethnic groups, including the native Dutch adolescent boys.

The pathway to YMHC for children

As we have seen, the chances for ethnic minority children to receive YMHC are somewhat lower than for their ethnic majority peers. In this paragraph we will focus on the possible explanations for these results by using the Filter Model introduced in the first chapter (Goldberg & Huxley, 1980). The paragraph hereafter will focus on the situation with adolescents.

An important role in the process of help-seeking (*first filter*) for children is played by the parents, relatives and teachers. Several important predictors for help-seeking are the strain of caring for the child, as perceived by the caregiver or teacher (Angold et al., 1998; Brannan, Heflinger, & Bickman, 1997), and the perception of need for services (Zahner & Daskalakis, 1997). There appear to be significant and robust ethnic differences in experienced caregiver burden or strain. In the studies of McCabe et al. (2003) and Shin and Brown (2009), African Americans reported significantly lower caregiver strain than did Caucasians. The effects of ethnic background on YMHC utilization were indirect, mediated through caregiver strain, and a lower experienced caregiver strain resulted in lower YMHC utilization. Such differences might be found within the various ethnic populations living in the Netherlands as well.

Another important predictor of help-seeking is the level of proto-professionalization (the degree to which individuals have the capacity to obtain, process, and understand basic health information, recognize mental health problems, and have knowledge about the services needed to make appropriate health decisions) of the caregiver (or teacher) which influences the capacity to recognize problems and the knowledge where to seek help (De Swaan, 1979). Ethnic

minorities appear to be less familiar with mental health problems and with the possibilities of professional care than majority groups (De Jong & Colijn, 2010). Also, there are ethnic differences in the recognition or identification of a mental health problem. For instance, emotional problem identification was lower among several groups of ethnic minority parents than among native Dutch parents (Bevaart et al., 2012; Verhulp et al., 2013). This lower problem identification could (partly) explain why ethnic minority parents less often seek help for the mental problems of their child than majority parents. Alternatively, they may seek help with their GP without mentioning the mental health problems and focus instead on somatic problems (Gureje, Simon, Ustun, & Goldberg, 1997; Keyes & Ryff, 2003; Krueger, Chentsova-Dutton, Markon, Goldberg, & Ormel, 2003). Although the assumption that ethnic minority groups tend to somatize more often than ethnic majority groups is certainly not supported by all studies (Aragona et al., 2005; Parker et al., 2005). In addition, ethnic minority parents also tend to seek help with traditional or alternative healers instead of their GP or another regular care worker (Bhui & Bhugra, 2002).

Of course, not only factors in the help-seeking process play a role in the underutilization of YMHC services. Usually help is first sought at the GP or a primary care worker. Consequently, factors that are associated with their recognition of psychiatric problems (*second filter*), and subsequent referral (*third filter*) should also be considered (Zwaanswijk, Verhaak, Van der Ende, Bensing, & Verhulst, 2005b). For instance, these professionals are likely to judge differently on behavioural and psychological cues dependant on the ethnic background of the patient, the ethnic background of the professional, cultural values and education of the professional, as well as the culture of the institution itself (Torres et al., 2007; Zayas et al., 2005). As a result, ethnic minority children with psychiatric disorders may be less likely to be referred to YMHC and are treated elsewhere (e.g., in primary youth care) or not treated at all. Once a child is referred to YMHC, it is helpful when the parents are familiar with the mental health care system and have confidence in their possibilities to seek help at the YMHC institution. This familiarity and confidence is less apparent for ethnic minority parents than for native Dutch parents (Boon & Colijn, 2001; Zwaanswijk et al., 2003, 2005a). In one study it was found that in primary care there were no ethnic differences in referral to YMHC by the professional, while after referral there were ethnic differences in the utilization of YMHC (Bevaart et al., 2012). This indicates that many children, especially ethnic minority children, do not access the recommended mental health services after referral (the so-called no show).

The pathway to YMHC for adolescents

For adolescents, the studies in this thesis showed there were no ethnic differences in YMHC utilization. This was also found by Zwaanswijk et al. (2003), where adolescents of ethnic minority descent were even more likely to have received mental health care than native Dutch youth, although the number of ethnic minority adolescents was rather small in their study. It might be that adolescents in general are more reluctant to seek help than parents (Rickwood, Deane, Wilson, & Ciarrochi, 2005; Zachrisson et al., 2006). Even when they recognize their own problematic behavior and feelings, they are still less likely than adults to translate their concerns into help-seeking actions (Sourander et al., 2001; Zwaanswijk et al., 2003). The absence of differences in utilization rates between ethnic groups could, among other things, be the result of equal levels of proto-professionalization and similar help-seeking processes among ethnic groups at this age (*first filter*). For example, it was found that the level of problem recognition (which is an indicator of proto-professionalization) did not differ as much between ethnic minority adolescents and native Dutch adolescents, as it did between ethnic minority parents and native Dutch parents (Verhulp et al., 2013). In addition, adolescents from all ethnic groups have similar access to (mental) health-related information via media such as television, magazines, and internet (Schalken, 2010), and they often seek help via internet health services or e-health sites where they find information about their potential disorders (Andreassen et al., 2007). Also, many high schools offer school-based services which might be a sufficient mental health provider for at least part of the adolescents in need for mental health care (Farmer, Burns, Phillips, Angold, & Costello, 2003; Taal & Dudink, 2006). When adolescents do decide to seek help with a GP or youth care worker, these professionals experience difficulties in recognizing mental health problems and subsequent referral to YMHC (*second and third filter*) in adolescents in general. For instance, Zachrisson et al. (2006) found that nearly half of the help-seeking adolescents with mental health problems were not being referred to YMHC.

An important related issue is that (some groups of) ethnic minority boys are found to have a much higher chance to be treated in forensic YMHC settings than their majority peers (Boon et al., 2014). And several surveys showed that, compared to ethnic majority boys, ethnic minority boys are overrepresented in judicial youth institutions (Bovenkerk & Yeşilgöz, 2003; Vollebergh, 2003). Research also showed that among juvenile male delinquents in the Netherlands and Germany, a high percentage meets the criteria for at least one psychiatric disorder, and high comorbidity rates are present (Köhler, Heinzen, Hinrichs, & Huchzermeier, 2009; R.R.J.M.;

Vermeiren, 2003; Vreugdenhil, Doreleijers, Vermeiren, Wouters, & Van den Brink, 2004). A hypothesis is that because early mental health care is lacking, especially for ethnic minority youth, the problems of these youth get worse during the years. During adolescence these youth express delinquent behaviour related to their psychiatric and behavioural problems, and judicial procedures are then indicated.

Contrary to the results in this thesis, two studies did find ethnic differences in the regular YMHC utilization rates for adolescents, with ethnic minority adolescents making less use of YMHC than ethnic majority adolescents (Cummings & Druss, 2011; Verhulp et al., 2013). In these two studies however, adolescents from the general population were asked about their mental health care utilization in the past year. While in this thesis, the data of the actual YMHC patients in a certain year were analyzed. Self-reports of adolescents or their parents on YMHC utilization might not always be accurate, and we think that our utilization rates are more likely to reflect the actual rates.

Children and adolescents within YMHC: the diagnostic process

When the first three filters are passed, patients are assessed by YMHC professionals. As we saw in the fourth chapter, the ethnic background of the patient is an important factor in the way patients are assessed. Ethnic minority patients were classified less often with a psychiatric disorder or comorbidity and more often with a V-code only (i.e., no classification of a psychiatric disorder was registered) compared to their majority peers. Because research has shown psychiatric disorders to be at least as high among ethnic minority youth as among ethnic majority youth, this lower classification of psychiatric disorders might be caused by several biasing mechanisms. For instance, ethnic differences in received diagnoses might be the result of a deficiency in the cross-cultural reliability of diagnostic categories or in the diagnostic abilities of the professional. Several studies found biases in the assignment of diagnoses to ethnic minority individuals (Begeer et al., 2009; Mandell et al., 2009; Neighbors, Trierweiler, Ford, Ford, & Muroff, 2003; Trierweiler et al., 2000; Yeh et al., 2002). Professionals might judge differently on behavioral and psychological cues based on the ethnic background of the patient, the ethnic background of the professional, cultural values and education of the professional, and the culture of the YMHC institution itself (Angold & Fisher, 1999; De Jong, 2010a; Garb, 2005; Torres et al., 2007; Zayas et al., 2005). In addition, unfamiliarity of the ethnic majority professional with the cultural norms of ethnic minority groups makes the clinician vulnerable to

their own personal biases (De Jong & Van Ommeren, 2002; Neighbors et al., 2003). As a consequence, ethnic minority youth might not be diagnosed correctly and thus not be treated for the right disorders. Diagnostic accuracy was found to be an important precursor to successful treatment, resulting in a better therapy engagement, fewer therapy no-shows, and a decreased likelihood of therapy dropout (Jensen-Doss & Weisz, 2008). Some critics advocate that a more culturally sensitive approach to psychiatry is needed, as current diagnostic guidelines have a fundamentally Euro-American outlook (Kress et al., 2005; Widiger & Sankis, 2000; Zandi, Havaanaar, Laan, Kahn, & Van den Brink, 2011; Zandi et al., 2008). In two studies among psychiatrists and psychologists worldwide, substantial percentages reported problems with cross-cultural applicability and cultural bias of the current diagnostic classification of mental disorders (Evans et al., 2013; Reed et al., 2011).

Another issue is the necessity of accurate information about the child's problems given by the patient as well as other informants (e.g., parents, other family members, teachers), since psychiatric diagnosis relies heavily on self-report (Neighbors et al., 2003). Often ethnic minorities are less willing or less capable to share information on the development of their child, and it is therefore much harder to decide on a correct diagnoses (Pels & Nijsten, 2003). In addition, ethnic minorities (especially the parents) can have a weak knowledge of the host countries language, express problems and symptoms in different ways, and some words can have different meanings within the various languages (Nikapota & Rutter, 2008). Research has also shown it might depend on the specific informant how and to what extend the problems are reported. For instance, Moroccan boys reported much lower externalizing problems levels than did their teachers (G. W. J. M. Stevens et al., 2003), and Moroccan and Surinamese parents reported less problems with their children than did their teachers (Zwirs et al., 2006a). The differences in reported problems between teachers and native Dutch youth or parents were much lower.

Children and adolescents within YMHC: dropping out of therapy

Once children and adolescents have started treatment in YMHC, completion is important because this increases the likelihood that psychiatric problems get resolved. In the fifth chapter, a meta-analytic review of dropout studies was conducted. Several robust overall predictors for dropout were found. Ethnic minority status was one of these predictors, although only a minority of the dropout studies included ethnic background as one of the possible predictors. A

literature review specifically focusing on the dropout studies that did take ethnic background into account was conducted in chapter six. Mainly conflicting results were found. Therefore only some minor conclusions on the role of ethnic background in therapy dropout could be given. First, in the United States it depends on the specific ethnic background whether ethnic minority patients have a higher chance to drop out than ethnic majority patients. Whether ethnic minority background is a risk factor for dropping out in other countries than the United States remains unclear. Second, although several differences in dropout predictors between the ethnic groups were found, it should be noticed that results were often only found in one or two studies and were seldomly confirmed by others. The meta-analytic review further indicated that treatment/therapist variables were overall stronger dropout predictors than pre-treatment child and family/parent variables, which is in accordance with the theory of barriers to treatment participation (Kazdin et al., 1997a; Kazdin et al., 1997b). In this theory it is proposed that families experience multiple barriers during therapy interfering with participating in treatment, and that these experiences increase the risk for dropping out. Important practical implications for reducing therapy dropout can be deducted from the findings in this thesis and this theory. For instance, when the patient or parent experiences a bad relationship with the therapist, the therapist can try to positively influence this relationship or there could be a change in therapists, hopefully reducing the dropout chance. The finding of our meta-analytic review that treatment/therapist variables are the most important dropout predictors thus implicates that there are ways to reduce the chance of dropping out in the future.

Because only a minority of the studies on dropout in child and adolescent psychiatry focused on ethnic minority youth and only none of these studies was conducted in The Netherlands, several dropout predictors were studied at the our YMHC facilities in The Hague in chapter seven and eight. The hypotheses that different dropout risk factors would be found for children and adolescents, and different risk factors would be found for dropouts versus referrals, were confirmed in chapter seven. We considered that patients who are referred before therapy has ended cannot be seen as completers nor dropouts, because the treatment is being continued elsewhere (Armbruster & Fallon, 1994; Johnson et al., 2008), as it is not known how the patient will ultimately terminate therapy. The aggregation of referral patients and other termination groups in the majority of earlier dropout studies may have clouded interpretation of results on dropout predictors. Our results also indicated that ethnic minority status is not always a dropout predictor, as only some specific ethnic groups had higher dropout chances than the

majority group (i.e., Surinamese adolescents had higher dropout chances). This is in accordance with the results of former studies (see literature review in the sixth chapter). The higher dropout risk for Surinamese adolescents may, among other things, be explained by (Creole) Surinamese families often being single-parent families with only the mother living at home (Distelbrink, 2000). During adolescence these mothers may have less authority over their children, resulting in rebellious adolescents who prematurely terminate therapy. Also, because of the single-parent status, mothers all too often have to work long hours, As a result, no parent is present at home to motivate their child to participate in therapy.

Another finding was that Moroccan children had a higher chance to be referred. This might be explained by the difficulties some clinicians experience in working with Moroccan families (Bellaart, 2004). We therefore analyzed the sites where the Moroccan patients were referred to. It appeared most patients were referred to a specific mental health care site for youth with (mild) intellectual disabilities. Unfortunately no information was available on the appropriateness of the referral and its consequences for the patient. Maybe many of the Moroccan patients in our research group had psychiatric problems that were associated with intellectual disabilities, or these patients were seen intellectually disabled because they (or their parents) have a lower mastery of the Dutch language (Verboom, 2010). The finding that adolescent patients from unemployed parents had the highest chance to drop out, might indicate practical obstacles (e.g., insufficient money to pay for transportation). Also, in these unemployed families many other problems (e.g., parents having mental health problems themselves, upbringing problems, stress because of financial problems) may have hampered treatment participation. Because all Dutch children (from all ethnic backgrounds) are covered by public or private health insurance, utilization of health care services is largely independent from financial constraints (Zwaanswijk, 2005). Therefore financial constraints were not expected to play a significant role in therapy continuation. Our results suggest there are factors related to unemployment (and not related to whether the therapy can be paid for) that play a significant role in treatment dropout with adolescents.

The finding that both ethnicity and SES had a predictive value for dropout is an interesting addition to the role of ethnicity and SES in (youth) mental health care. Because both variables are correlated, many authors state SES variables actually explain the differences (on for instance prevalence of psychiatric disorders or accessibility of mental health care institutions) between ethnic groups, or we are actually talking about ethnic or cultural variables when SES differences

are found (Cooper, 2002; Kamperman et al., 2007; Stronks & Kunst, 2009; Stronks et al., 2001). Our study does not confirm nor invalidate these statements. It was rather found both variables are important and independent contributors for dropout.

An additional risk factor for dropout was a perceived decreasing quality of the therapeutic relationship, while a perceived improving quality of the therapeutic relationship during the course of therapy was associated with completing therapy. The few former studies (chapter five) that focused on the association between the quality of the therapeutic relationship and the completion or dropout of therapy also found this association. In these studies no specific focus was given to the ethnic background of the patients however, i.e. most of the time only ethnic majority patients were considered or ethnic background was not mentioned. In addition, it were mostly studies on substance abusing adolescents, and the quality of the therapeutic relationship was often measured in retrospect at the end of therapy, or by trained observers who rated the therapeutic alliance at one or two therapy sessions during the course of therapy. For this last approach, a research setting is needed, and it is therefore not useful in clinical practice. Our study in the eight chapter of this thesis on the contrary, was done in a clinical practice setting, which adds insights on the role of the therapeutic relationship in these settings. Our study revealed the quality of the therapeutic relationship plays an important role in therapy with ethnic minority youth, just as it does with ethnic majority youth. It also showed that a rather short instrument, which can be easily applied in clinical practice and which is completed by the child or adolescent patient, can be a valuable tool to measure the quality of the therapeutic relationship in therapy with ethnic minority youth.

Limitations and future research recommendations

A first limitation of our study is it was mainly based on the data of two institutions in one large city in The Netherlands. We therefore do not know to what extent specific factors of these institutions, the population of The Hague, or even The Netherlands, may have influenced the results. For instance, utilization of (mental) health care services in the Netherlands is largely independent from financial constraints, because all Dutch children are covered by public or private health insurance (Zwaanswijk, 2005). The results may thus not be directly applicable to nations in which major financial constraints hamper the availability of care. We therefore advocate that research about ethnic differences in the utilization of YMHC is replicated in other cities in The Netherlands and in other countries.

Second, because our study was conducted in a daily clinical practice setting, we had no influence on who entered care and thus participated in our study. Neither did we have influence on the way diagnoses were made. As we saw, only a minority of youth that needs care enters YMHC, and information about the group that does not enter care is lacking. We can therefore not rule out the possibility that, for instance, differences in referral patterns between ethnic groups have influenced our results on diagnoses and dropout predictors. The goal was to evaluate the clinical practice of YMHC however, and we therefore conducted a practice-based study. We however have no clear picture of how and why some children do enter YMHC and others do not, and of the accuracy of this selection. Some children might be erroneously referred while other children that definitely need YMHC will never be referred. In addition, we have no clear picture on how many children receive (mental health) care elsewhere and which forms of care these exactly are. Only with all this additional information can we reach definite conclusions and recommendations on how to increase the accessibility of YMHC for those who need it, and minimise the number of children and adolescents coming into YMHC who do not need it.

A third limitation is our definition of socioeconomic status (SES), which may limit the comparison with other studies on the role of SES. For instance, in our third chapter, we used the average income of the district as an indicator for SES, and we did not have information on the individual SES levels of the patients. We could thus not provide rates of children with a lower or higher SES in care, and we can therefore not conclude socioeconomic factors do not play a role at all in the utilization of YMHC facilities. In our study described in the seventh chapter we were able to use individual SES variables (education level and occupation level of the parents). Here a specific subgroup of patients was concerned, while in our study described in the third chapter all the patients of our institution were included. We recommend to use similar indicators of individual SES levels in future studies.

Fourth, our study was conducted in 2008 and 2009 when it was still allowed to classify a patient with a V-code as the main diagnosis. In the years after that, the health care insurers (who are the main financers of mental health care in The Netherlands) decided it was not permitted to classify a patient with a V-code as the main diagnosis. Because of this rule, patients with 'only V-codes' will now not exist anymore. Similar results as found in our study can thus not be replicated, and the question is whether and what type of ethnic differences will be found in the

DSM classifications in YMHC practice nowadays. We therefore recommend a similar study on possible ethnic differences in DSM classifications in YMHC to be replicated.

Fifth, we only analyzed the child-therapist relationship and we did not analyze the parent-therapist relationship. Some former studies found that only parent-therapist relationship was predictive for dropout and not child-therapist relationship (Hawley & Weisz, 2005). As noted by Shirk and Karver (2003), the examination of the therapeutic relationship in child and family therapy may be more complex than in adult therapy, in part because it involves both child and caregiver relationships with the therapist. Even in the most child-focused interventions, caregivers are involved at some level throughout treatment; at the least, caregivers are responsible for getting the child to therapy and for structuring the family environment in ways conducive to the therapy recommendations (Hawley & Weisz, 2005). It might be best to have both the parent and the patient as the respondents (Zack et al., 2007) in order to get the patient's and the parent's perspective on the quality of the therapeutic relationship. Similarly, it would have been informative to include therapist reports of the quality of the therapeutic relationship as well. We recommend this should be done in future studies.

Also, we only analysed the therapeutic relationship in a group with ethnic minority patients, and we could not compare this with results for ethnic majority patients. We thus recommend research on the association between dropout and the therapeutic relationship in samples consisting of both ethnic majority and ethnic minority children and adolescents, so the results between the various ethnic groups can be compared.

Another limitation concerns the dropout definition. In contrast to our definition, many previous studies define dropout in terms of treatment duration or number of sessions completed, in which clients attending less than the specified number of sessions are categorized as dropouts. Both treatment completion and dropout can however occur after any number of sessions. We therefore chose to use a definition in which dropout could occur at any moment during therapy, as was also done in a minority previous studies (i.e., 'the termination of treatment at any point of time after inscription that occurs on the child's or parent's unilateral decision, while the therapist thinks further treatment is needed'). Such a definition has drawbacks as well though. For instance, when the therapist thinks that additional therapy is needed but the parent or patient feels that they have already benefited enough from therapy, it is uncertain whether these patients should be counted as dropouts or completers. Dropout thus remains a complex phenomenon, and all the different definitions make it almost impossible to

compare the results from the various studies. We recommend all future studies use a similar dropout definition in which both the opinion of the therapist as well as the opinion of the parent or (adolescent) patient are used. From these opinions it should be derived whether the patient has benefited sufficiently, and whether the termination was in agreement of both the therapist and the patient.

Last, we did not include articles on methods and strategies to reduce dropout and enhance therapy attendance and adherence in our meta-analytic review and literature review, while much work has already been done in this area. We thus recommend a focus on studies that analyze methods and strategies to reduce dropout in the future. Several authors have already reviewed the studies on strategies for reducing dropout in psychotherapy with children, which all focused on enhancing therapy engagement of the parents or of the whole family (Gopalan et al., 2010; McKay & Bannon Jr., 2004; Morrissey-Kane & Prinz, 1999; Nock & Ferriter, 2005). As far as we know, this has not yet been done for adolescents though.

Implications and recommendations for clinical practice

The results of the studies in this thesis indicate there is still a lot to be done to increase our knowledge on the ethnic differences in the pathways to YMHC, and the processes within YMHC. As this thesis focused specifically on the children and adolescents within YMHC, this will be the main focus of our implications and recommendations. Recommendations for professionals working in institutions on the pathway to YMHC, or for the parents and potential patients themselves, are beyond the scope of this thesis.

First, because children and adolescents of all ethnic minority groups and adolescents of native Dutch descent tend to underutilize YMHC, it is important for YMHC institutions to reflect on measures to become more accessible for youth in general and for ethnic minority children in particular. This can for instance be done by intensifying the relationship with referral agents and institutions (e.g., youth care, school, GP's), and by increasing the knowledge on the recognition of disorders and the possibilities of YMHC with the potential patients (e.g., information sessions at places where parents and youth often come). A complicating factor is that at this moment there is a change in how YMHC is arranged and financed in The Netherlands (i.e. the 'transition' will make child mental health the responsibility of the local authorities) (Pijpers et al., 2013; R.R.J.M. Vermeiren, 2013). The goal is to a switch focus from psychiatric treatment to regular youth care and upbringing problems, with less money being available for YMHC. Because of

drastic budget cuts, even more youth may not access the needed psychiatric treatment. It is at present unknown how this may affect differences between ethnic groups.

Second, with respect to the diagnostic process, it is helpful to gain insight in the cultural background of the patient and his family. For this purpose, the DSM offers an adaptive interview technique (the Cultural Formulation Interview) (APA, 2013; Kirmayer et al., 2008) These cultural formulations provide additional information, e.g. on the client's life context, identity, explanatory models and meaning. Assessing a client's worldview through such interviews, or how the client views the world from social, ethical, moral, and philosophical perspectives, is necessary to comprehensive, culturally sensitive assessment (Lonner & Ibrahim, 2002). When making decisions on a certain diagnosis, it is important to refer to the potential limited usefulness of the questionnaires in the diagnostic process, and to make sure that other professionals that are going to work with the patient are aware of these limitations (i.e., the diagnostic classification might have to be changed after renewed insight) (De Jong & Van Ommeren, 2002; Van de Vijver, 2011).

Third, an ethnic match between therapist and the parent or the adolescent patient might increase the chance that patients will complete therapy, and mental health institutions might thus try to ethnically match their patients and clinicians. Although in the Netherlands it was shown that the majority of adult Turkish and Moroccan patients did not value ethnic matching as important; clinical competence and compassion were considered to be more relevant than ethnic background (Knipscheer & Kleber, 2004).

Fourth, clinicians should be aware of the therapeutic alliance; a negative or decreasing quality of the therapeutic alliance can increase the dropout risk (and this accounts for patients of various ethnic backgrounds). It is recommended that the therapist should communicate it with the patient (i.e., give feedback) if there is a drop in the rated quality of the therapeutic relationship. It is probable that giving feedback to the patient about the course of the therapeutic relationship will lead to an improvement in this relationship, and will then lead to a decrease in dropout and an increase in completion of therapy. For instance, the (C-)SRS (Child Session Rating Scale) (B.L.; Duncan et al., 2003; S. D. Miller & Duncan, 2004; S. D. Miller et al., 2006) can be a very useful measure for evaluating the therapeutic relationship during therapy.

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SUMMARY

Background and aims

The main focus of this thesis are differences between ethnic groups in Youth Mental Health Care (YMHC). Within this focus three subjects are elaborated: the utilization of YMHC, the diagnoses given in YMHC, and the premature termination (dropout) of therapy in YMHC.

About seven percent of youths is limited in their functioning to such a degree that psychiatric treatment is indicated. This rate appears to be comparable across countries and ethnic groups. In most western societies however, only about 2.5 percent is treated in YMHC, and this percentage is lower for ethnic minority youth than for majority youth. Because untreated youth psychiatric disorders are likely to lead to detrimental outcomes later in life, it is clinically relevant to gain knowledge on the causes of this underutilization. Both ethnic background and socioeconomic status are seen as important variables in relation to ethnic differences in mental health care utilization. These variables are often correlated however, and it is difficult to differentiate to what extent each variable contributes to the underutilization. The first aim of this thesis is therefore to describe the utilization of YMHC in the Netherlands. Whether there are differences in service consumption between ethnic groups, between children and adolescents, and between males and females, and whether socioeconomic factors play a role in this utilization.

It is further important that the disorders of children and adolescents who consult mental health services are recognized. Unfortunately psychiatric disorders are often not recognized, especially when ethnic minority youths are concerned. This might for instance be due to clinicians assigning different meanings to the same behaviour depending on race, class, or other demographic characteristics of the individual involved. It is therefore interesting to analyze whether there are differences between ethnic groups and their received diagnoses in YMHC practice, which is thus the second aim of this thesis.

Another important issue in YMHC is the premature termination of treatment. As many interventions are efficacious, completing therapy increases the likelihood of reducing disfunctioning due to psychiatric problems. When children and adolescents prematurely terminate psychiatric treatment, their disorders might persist or even worsen later in life. In order to prevent negative consequences of treatment dropout it is important to gain knowledge

of its determinants. The third aim is therefore to describe the variables that relate to dropout and to analyze ethnic differences in dropout of therapy in YMHC.

For this thesis three data sources were used: 1) data of the patient population of two YMHC institutions of The Hague in 2008 and 2009, 2) data of the general population of The Hague, and 3) data of published studies on dropout. The data of the general population of The Hague and its surroundings were drawn from municipality files. Data of all published studies (1994-2013) on dropout in child and adolescent psychiatry were used to conduct a meta-analytic review and a literature review.

Findings

In the **second chapter** the utilization of YMHC services for different ethnic, age, and gender groups in The Hague is described. The ethnic composition of the patient group is analyzed and compared to the ethnic composition of the general population of The Hague. The results show that the use of YMHC services is unequally distributed over the different ethnic, gender and age groups. During *childhood* (age <12) most groups of ethnic minority girls and boys are less likely to receive YMHC than native Dutch boys and girls. Nevertheless, native Dutch girls also make less use of YMHC than expected in view of the prevalence rates of psychiatric disorders. Only for native Dutch boys the utilization percentage is approximately equal to the prevalence rate of psychiatric disorders. During *adolescence*, all ethnic groups are underrepresented in YMHC and no differences between ethnic groups are found. Adolescents of all ethnic groups, including the native Dutch, are thus being poorly reached by YMHC.

In the **third chapter**, the association between ethnic background, socioeconomic status (SES) and YMHC utilization is investigated. The results indicate that the percentage of children and adolescents in treatment is strongly associated with ethnic composition of the district they live in, and the district's income level has almost no effect on YMHC utilization. Findings thus suggest that on district level, ethnic background is more relevant in the utilization of YMHC than socioeconomic aspects. Because no information about the SES of the patients was available, the possibility remains however that on the individual level socioeconomic factors do play a role.

From the fourth chapter onwards, this thesis focuses on youths that have entered YMHC services. First, differences between ethnic groups in the received DSM classifications are described (**chapter 4**). The patients are divided into two groups: a first group of patients with only V-codes on Axis I (i.e., no classification of a psychiatric disorder is registered). And a second

group of patients diagnosed with one or more psychiatric disorders on Axis I. Within this second group, a subcategory of patients with more than one psychiatric disorder (i.e., comorbid disorders) is identified. The results show that, compared to native Dutch patients, ethnic minority patients receive co-morbid diagnoses less often. In reverse, ethnic minority patients more often receive V-codes only, indicating that problems such as ‘relational or communication problems between child and parent’ or ‘other social/environmental problems’ are identified as the main reason for treatment. This might also indicate that it is harder to identify the psychiatric problems with ethnic minority youth.

In the fifth chapter, the focus shifts to the way treatment is terminated. A meta-analytic review and a literature review on dropout are done and described in the fifth and sixth chapter. The meta-analytic review (**chapter 5**) first analyses possible differences between results of randomized control trails (RCT’s) and non-randomized practice-based studies. It appears that dropout percentages are strongly related to study design; percentages are lower in settings where RCT’s are conducted than in settings where non-randomized practice-based studies are conducted. Within practice-based studies, the dropout percentages are lower when the therapist’s opinion is used than when a predetermined number of sessions is used as the dropout criterion. In RCT studies on the other hand, the dropout percentages are similar for studies using the first or the second definition. Second, the meta-analytic review analyses the strength of the three groups of dropout predictors, i.e., pre-treatment child variables, pre-treatment family/parent variables, and treatment/therapist variables. It appears that treatment/therapist variables (e.g., the therapeutic relationship) are overall stronger dropout predictors than the pre-treatment child variables and pre-treatment family/parent variables.

In the **sixth chapter**, a literature review is conducted with the goal to structuralize the knowledge on psychotherapy dropout with ethnic minority youth. This review shows that it depends on the specific ethnic background of the minority patient whether they have a higher chance to drop out than ethnic majority patients. Also, several differences in dropout predictors between the various ethnic groups are found. The results indicate that in general a lower socioeconomic status is no risk factor for dropping out. An ethnic match between therapist and the parent or the patient decreases the chance on drop out in some, but not in all cases. The age of the patient appears to be an important factor in the effect of an ethnic match between the patient and the therapist, i.e., an ethnic match decreases the dropout risk for adolescents but

not for children. Unfortunately, almost only studies conducted in the United States (with the corresponding ethnic groups) could be included in the review.

In the last two chapters, several risk factors for dropout are analyzed within the two YMHC settings in The Hague. The study in **chapter 7** is conducted in “De Jutters”. Three dropout risk factors (ethnic minority status, a lower socioeconomic status (SES), and higher problem severity) are examined for children and adolescents separately. Termination status is divided in three categories: 1) referred patients (i.e., referred to another department or to another youth care facility before therapy was completed), 2) dropouts and 3) completers. The results show that for *children*, a Moroccan ethnicity and higher externalizing scores are risk factors for being referred. For *adolescents*, a Surinamese ethnicity, being older, and lower SES occupation levels are risk factors for dropout. **Chapter 8** focuses on the quality of the therapeutic relationship. This part of the study is conducted at “i-psy de jutters”, where only patients with an ethnic minority background are treated. The results indicate that a perceived increase in quality of the therapeutic relationship during the course of therapy is associated with patients completing therapy, while a perceived decrease in quality of the therapeutic relationship during the course of therapy is associated with patients dropping out.

Limitations and implications

The findings, limitations, and implications for clinical practice are discussed in **chapter 9**. An important limitation of our study is that it is mainly based on the data of only two institutions in one large city in The Netherlands. We therefore do not know to what extent specific factors of these institutions, the population of The Hague, or even The Netherlands, may have influenced the results. For instance, utilization of (mental) health care services in the Netherlands is largely independent from financial constraints, because all Dutch children are covered by public or private health insurance. The results may thus not be directly applicable to nations where major financial constraints hamper the availability of care. Therefore it is advocated that research about ethnic differences in the utilization of YMHC is replicated in other cities in The Netherlands and in other countries. Another limitation is information about the group that is not in care is lacking. This leaves the possibility that differences between ethnic groups in the trajectory to YMHC (for instance in referral patterns) play an important role in the findings on diagnoses and dropout predictors.

Summarizing the clinical implications it is advised that YMHC institutions reflect on measures to heighten their accessibility; for youth in general and for ethnic minority children in particular. This can for instance be done by intensifying the relationship with all possible referral agents and institutions (e.g., youth care, school, GP's), and by increasing the knowledge on the recognition of disorders and the possibilities of YMHC with the potential patients (e.g., information sessions at schools, GP offices, infant welfare centers, community centers). Second, with respect to the diagnostic process, it is necessary to gain insight in the cultural background of the patient and his family and to improve the cross-cultural validity and reliability of the diagnostic process. Third, therapists should pay attention to factors that might increase the risk for their patients to drop out of therapy. These factors include the ethnic background, problem severity, and the therapeutic relationship. With respect to the therapeutic relationship is it specifically advised this should be measured during all sessions of therapy, in stead of only after treatment has ended.

Despite several limitations and despite many research still has to be done, this thesis contributed to the knowledge on ethnic minority youths in YMHC. The hope is that with the present results, completed with additional research and improvements in clinical practice, the ethnic differences in YMHC will be reduced over time.

SAMENVATTING

Achtergrond en doelstellingen

Dit proefschrift richt zich op verschillen tussen etnische groepen in de Jeugd-GGZ vanuit drie invalshoeken: het gebruik van de Jeugd-GGZ, de gestelde diagnoses in de Jeugd-GGZ en het voortijdig beëindigen van de behandeling (drop-out) in de Jeugd-GGZ.

Ongeveer zeven procent van de jongeren ondervindt een dusdanige beperking in het dagelijks functioneren dat psychiatrische behandeling (in de Jeugd-GGZ) nodig is. Dit percentage is ongeveer gelijk in verschillende landen en bij verschillende etnische groepen. In de meeste westerse landen wordt echter slechts 2.5 procent van de jongeren behandeld in de Jeugd-GGZ, voor jongeren uit etnische minderheidsgroepen is dit percentage lager dan voor autochtone jongeren. Omdat onbehandelde psychische problemen tijdens de jeugd negatieve gevolgen op latere leeftijd hebben, is het belangrijk om meer te weten over de oorzaken van dit lage GGZ gebruik. Zowel etnische herkomst als socio-economische factoren worden gezien als belangrijke variabelen om etnische verschillen in zorggebruik te verklaren. Deze twee variabelen hangen echter vaak samen en het is daarom ingewikkeld om erachter te komen in hoeverre en welke rol ze spelen bij het GGZ gebruik. De eerste doelstelling van dit proefschrift is om het gebruik van de Jeugd-GGZ in Nederland (in Den Haag) te beschrijven. Welke verschillen zijn er in zorggebruik tussen etnische groepen, tussen kinderen en adolescenten, tussen jongens en meisjes en in hoeverre spelen socio-economische factoren hierbij een rol.

Het is belangrijk dat psychiatrische problemen of stoornissen herkend worden door de professionals waar hulp wordt gezocht, maar dit is niet altijd het geval. Vooral bij jongeren van niet-Nederlandse herkomst lijken de stoornissen vaak niet herkend te worden. Dit kan bijvoorbeeld veroorzaakt worden doordat geslacht, etnische herkomst en andere (sociaal)demografische karakteristieken van invloed zijn op hoe klinici het gedrag en de symptomen van jongeren interpreteren. Daarom is de tweede doelstelling van dit proefschrift om te onderzoeken in hoeverre er etnische verschillen zijn in de diagnoses die jongeren in de Jeugd-GGZ krijgen.

In de Jeugd-GGZ worden veel behandelingen voortijdig beëindigd (drop-out). Omdat veel behandelingen effectief zijn is het belangrijk dat de behandeling wordt afgerond om het disfunctioneren als gevolg van de psychische stoornis zoveel mogelijk te beperken. Bij kinderen en adolescenten die de behandeling voortijdig stoppen, kan het zijn dat de psychische

problemen blijven bestaan of zelfs verergeren. Om de negatieve gevolgen van drop-out te voorkomen, is het belangrijk meer kennis te verwerven over de factoren die drop-out veroorzaken. De derde doelstelling van dit proefschrift is om de factoren die een belangrijke rol spelen bij drop-out en de etnische verschillen in drop-out in de Jeugd-GGZ te beschrijven.

Voor de onderzoeken in dit proefschrift wordt gebruik gemaakt van drie databestanden: 1) de patiëntpopulatie van twee Jeugd-GGZ instellingen in Den Haag in 2008 en 2009, 2) de algemene populatie van Den Haag en 3) gepubliceerde onderzoeken over drop-out. De data over de algemene populatie van Den Haag komt uit gemeentebestanden. De data over gepubliceerde onderzoeken (1994-2013) over drop-out in de kinder- en jeugdpsychiatrie wordt gebruikt om een meta-analyse en een literatuur review te doen.

Bevindingen

In het **tweede hoofdstuk** wordt het Jeugd-GGZ gebruik beschreven voor de verschillende etnische groepen in Den Haag waarbij onderscheid wordt gemaakt in geslacht en leeftijd. De etnische samenstelling van de patiëntengroep (van “De Jutters” en van “i-psy de jutters”) wordt vergeleken met die van de jeugdige bevolking van Den Haag. Er blijken niet alleen verschillen te zijn tussen etnische groepen, maar ook tussen jongens en meisjes en tussen kinderen en adolescenten. Tijdens de *kindertijd* (leeftijd tot 12 jaar) maken de meeste etnische minderheidsgroepen minder gebruik van de Jeugd-GGZ dan de autochtone Nederlandse jongens en meisjes. Toch maken ook autochtone Nederlandse meisjes minder gebruik van de Jeugd-GGZ dan je zou verwachten op basis van wat bekend is over de prevalentie van psychiatrische stoornissen. Alleen bij de autochtone Nederlandse jongens lijkt er geen sprake te zijn van ondergebruik. Tijdens de *adolescentie* wordt bij alle etnische groepen ondergebruik geconstateerd, maar komen er geen duidelijke verschillen tussen etnische minderheden en autochtone Nederlanders aan het licht.

In het **derde hoofdstuk** wordt het verband tussen etnische herkomst, sociaaleconomische status (SES) en het Jeugd-GGZ gebruik onderzocht. Er blijkt een duidelijk verband te zijn tussen het percentage jongeren dat in behandeling is bij de Jeugd-GGZ is en de etnische samenstelling van de wijk (het percentage autochtone bewoners) waarin zij wonen. In wijken met een hoog percentage autochtone bewoners, is er een hoger percentage jongeren dat van de Jeugd-GGZ gebruik maakt dan in wijken met een hoog percentage bewoners van niet-Nederlandse herkomst. Er blijkt daarentegen nauwelijks verband te zijn tussen het percentage jongeren dat

in behandeling is bij de Jeugd-GGZ is en de SES van de wijk (het gemiddelde jaarlijkse inkomen). Deze resultaten wijzen er op dat op wijkniveau etnische herkomst een belangrijkere rol speelt bij Jeugd-GGZ gebruik dan sociaaleconomische aspecten. Helaas is er geen informatie beschikbaar over individuele SES. Het is immers mogelijk dat op individueel niveau sociaaleconomische factoren wel een rol spelen.

In het **vierde hoofdstuk** worden de DSM-classificaties van de jongeren die in behandeling zijn in de Jeugd-GGZ beschreven. De cliënten zijn daarbij verdeeld in twee groepen. Eén groep cliënten waarbij de problemen gedurende de gehele behandeling alleen met V-codes geclassificeerd worden (dus geen duidelijke psychiatrische stoornis). Onder V-codes worden problemen zoals 'relatie- en communicatieproblemen tussen kind en ouders' of 'andere sociale- of omgevingsproblemen' gerubriceerd. En een tweede groep van cliënten waarbij de problemen wel als psychiatrische stoornissen op As I worden geclassificeerd. Binnen deze tweede groep wordt een subcategorie van cliënten met meer dan één stoornis (comorbiditeit) onderscheiden. Het blijkt dat er minder comorbiditeit wordt geconstateerd bij jongeren uit etnische minderheden dan bij hun autochtone leeftijdsgenootjes. Daarentegen worden jongeren van niet-Nederlandse herkomst juist vaker geclassificeerd met alleen V-codes. Deze resultaten geven aan dat deze jongeren vaker in de GGZ worden behandeld vanwege psychosociale problematiek in vergelijking met autochtone jongeren, waarbij vaker één of meerdere psychiatrische stoornissen worden vastgesteld. Of het kan zijn dat de stoornissen minder eenvoudig vast te stellen zijn bij jongeren van niet-Nederlandse herkomst. .

Vanaf het vijfde hoofdstuk richt het proefschrift zich op de manier waarop therapie wordt beëindigd. In hoofdstuk vijf en zes worden een meta-analyse en een literatuur review naar drop-out beschreven. In de meta-analyse (**hoofdstuk 5**) wordt allereerst het verschil tussen resultaten van gerandomiseerde gecontroleerde studies (RCT's) en van niet gerandomiseerde praktijkstudies vergeleken. Het blijkt dat drop-out percentages sterk gerelateerd zijn aan de soort studie; in RCT's zijn de percentages een stuk lager dan in niet gerandomiseerde praktijkstudies. Binnen de praktijkstudies zijn de percentages weer lager als er gebruik wordt gemaakt van de mening van de therapeut om drop-out te definiëren, dan wanneer het niet afronden van een van tevoren bepaald aantal sessies als drop-out wordt gezien. In RCT studies lijkt er geen verband te zijn tussen de drop-out percentages en de gehanteerde definitie. Naast bovengenoemde verschillen in drop-out studies, wordt in de meta-analyse de sterkte van drie groepen drop-out predictoren bepaald. De eerste twee groepen zijn de kenmerken van het kind

en de kenmerken van ouders of familie. Met deze twee groepen kenmerken (zoals sociaaleconomische status, opgroeien in één-ouder gezin, of geslacht) kan wel rekening worden gehouden tijdens de behandeling, maar ze zijn meestal onveranderbaar. De derde groep bestaat uit therapie/therapeut variabelen, variabelen die wel te beïnvloeden zijn. Het blijkt dat therapie/therapeut variabelen (zoals de therapeutische relatie) over het algemeen een sterkere samenhang vertonen met drop-out dan de kind variabelen of de ouder- of familie variabelen.

In het **zesde hoofdstuk** wordt een literatuur review gedaan om de kennis over drop-out bij etnische minderheden in de Jeugd-GGZ te structureren. Niet alle etnische minderheden blijken per se een verhoogde kans te hebben op drop-out. Het is afhankelijk van de specifieke etnische herkomst of de kans op drop-out verhoogd is. Zo hebben in de VS vooral jongeren van Afrikaans-Amerikaanse herkomst een grotere kans op drop-out, maar dit geldt niet voor andere minderheidsgroepen. De review laat zien dat ondanks een aantal overeenkomsten de voorspellers van drop-out verschillen tussen de etnische groepen. Zo geeft een lage SES eigenlijk voor geen enkele etnische minderheidsgroep een verhoogd drop-out risico. Een etnische match tussen therapeut en cliënt lijkt het risico op drop-out te verminderen, al geldt dit lang niet voor alle etnische groepen. De leeftijd van de cliënt blijkt hier een belangrijke rol in te spelen; een etnische match lijkt wel belangrijk voor adolescenten maar niet voor kinderen. Helaas konden er bijna alleen maar studies geïnccludeerd worden die in de VS zijn uitgevoerd, dit maakt het lastig de resultaten te generaliseren naar andere landen.

In de twee laatste hoofdstukken worden verschillende drop-out predictoren onderzocht in de twee Jeugd-GGZ instellingen in Den Haag. Het onderzoek in **hoofdstuk 7** is uitgevoerd bij “De Jutters”. Drie drop-out predictoren (behorend tot een etnische minderheidsgroep, lage SES, hoge mate van emotionele en/of gedragsproblemen) worden voor kinderen en adolescenten apart onderzocht. De manier waarop de behandeling wordt beëindigd is verdeeld in drie categorieën: 1) doorverwezen cliënten (cliënten die worden doorverwezen naar een andere afdeling of instelling voordat hij of zij uitbehandeld is), 2) drop-outs en 3) uitbehandelde cliënten. Uit de resultaten blijkt dat *kinderen* van een Marokkaanse herkomst en met een hoge mate van externaliserende problematiek meer kans hebben om te worden doorverwezen. Bij *adolescenten* blijkt dat een Surinaamse herkomst, een oudere leeftijd en een lagere SES risicofactoren zijn voor drop-out. **Hoofdstuk 8** richt zich op de kwaliteit van de therapeutische relatie. Dit onderzoek is uitgevoerd bij “i-psy de jutters” waar alleen cliënten van niet-Nederlandse herkomst worden behandeld. Uit de resultaten blijkt dat het afronden van de

behandeling samenhangt met een ervaren verbetering van de kwaliteit van de therapeutische relatie. Drop-out hangt daarentegen samen met een ervaren verslechtering van de kwaliteit van de therapeutische relatie.

Beperkingen en implicaties

De bevindingen, beperkingen en implicaties van het hierboven beschreven onderzoek worden besproken en bediscussieerd in **hoofdstuk 9**. Een belangrijke beperking van het onderzoek is dat het in twee instellingen in één stad in Nederland is uitgevoerd. Het is daarom moeilijk om te bepalen in hoeverre specifieke kenmerken van de instellingen, van de Haagse bevolking, of van Nederland de resultaten beïnvloed hebben. Zo is het gebruik van de (geestelijke) gezondheidszorg in Nederland grotendeels onafhankelijk van de financiële middelen van de cliënt omdat iedereen een zorgverzekering heeft. De resultaten zijn dus wellicht niet generaliseerbaar naar landen waar financiële middelen wel een rol spelen bij het gebruik van deze zorg. We raden daarom aan om soortgelijk onderzoek naar het gebruik van de Jeugd-GGZ gerepliceerd wordt in andere steden in Nederland en in andere landen. Een andere beperking is dat we geen informatie hebben over de jongeren die niet in zorg zijn. Omdat onduidelijk is welke selectie er plaatsvindt in het traject dat leidt naar de GGZ, zouden de gevonden verschillen tussen etnische groepen wat betreft diagnoses en drop-out predictoren (deels) verklaard zouden worden door factoren op de route naar de Jeugd-GGZ en de etnische verschillen hierin.

Samenvattend adviseren we bij onze klinische implicaties dat Jeugd-GGZ instellingen zich bewust moeten worden van hun toegankelijkheid voor alle groepen die zij zouden moeten bedienen. Het blijkt immers dat de Jeugd-GGZ zowel door autochtone jongeren als door jongeren van niet-Nederlandse herkomst slecht wordt bereikt. Het verbeteren van de relatie met de mogelijke verwijzers (bijv. Bureaus Jeugdzorg, huisartsen, scholen) en het verbeteren van de kennis over in hoeverre potentiële cliënten hun problemen en de mogelijkheden van de zorg herkennen (door het geven van informatiebijeenkomsten op scholen, bij huisartsen, bij CJG's etc.) is hierbij een goede eerste stap. Ten tweede adviseren we dat het bij het diagnostische proces belangrijk is om aandacht te besteden aan de culturele achtergrond van de cliënt en zijn of haar familie om zo de crossculturele validiteit van dit proces te verhogen. Als derde geven we aan dat therapeuten aandacht moeten hebben voor factoren die de kans op drop-out kunnen verhogen. Dit zijn factoren als de etnische herkomst, probleemintensiviteit en de kwaliteit van de therapeutische relatie. Wat betreft dit laatste wordt het aangeraden om

deze gedurende alle therapie sessies te meten, in plaats van bijvoorbeeld alleen aan het einde van de behandeling.

Ondanks enkele beperkingen en ondanks dat er nog veel onderzoek moet plaatsvinden, heeft dit proefschrift bijgedragen aan de kennis over etnische minderheden in de Jeugd-GGZ. Er is hoop dat met de gevonden resultaten, gecombineerd met aanvullend onderzoek en verbeteringen in de klinische praktijk, de etnische verschillen in de Jeugd-GGZ op den duur zullen verminderen.

DANKWOORD

Dit proefschrift was nooit tot stand gekomen zonder de hulp van een aantal belangrijke mensen. Deze wil ik graag bedanken. Als eerste natuurlijk alle cliënten en hun ouders die hebben meegewerkt, zonder hen was er überhaupt geen onderzoek geweest. En ook De Jutters als organisatie wil ik bedanken. Zij hebben mij de mogelijkheid gegeven om jarenlang als onderzoeker te werken aan mijn promotieonderzoek. Ik heb er een geweldige tijd gehad. Mijn dank is groot.

Albert Boon, mijn co-promotor, collega bij De Jutters, mentor en niet in de laatste plaats, vriend. Twee generaties verschil, maar wat was het leuk om zo lang samen met jou een groot deel van mijn (werk)tijd door te brengen. Jij bedacht het onderzoek en hebt mij als junior onderzoeker aangenomen. Samen hebben we het onderzoek gemaakt tot wat het uiteindelijk geworden is, met ups en downs, maar altijd samen. Wat heb ik veel van jou geleerd. Een betere co-promotor had ik me niet kunnen wensen. Nu helaas geen directe collega's meer, maar voor de kwaliteit van onze relatie zal dat niet uitmaken. Dank voor alles en meer.

En dan mijn twee promotoren Robert Vermeiren en Joop de Jong, wat heb ik een geluk gehad om dit traject samen met jullie te mogen doen. Ik wil mijn enorme dank en waardering uitspreken voor jullie beiden. Zonder jullie had ik waarschijnlijk geen enkele (internationale) publicatie gehad en was het nooit tot een waardig proefschrift gekomen. Ik heb ontzettend veel van jullie geleerd over het schrijven (en gepubliceerd krijgen) van artikelen, over het kritisch kijken naar je eigen stukken, over de bredere context. Heel fijn was het om altijd zo snel een reactie te krijgen waar ik altijd wat aan had. Heel fijn was het ook om jullie waardering en vertrouwen te voelen. Jullie zijn een inspiratie voor velen.

De volgende persoon die ik wil noemen is Sjouk de Boer, mijn andere collega op de afdeling onderzoek bij De Jutters. Wat heb ik geboft met jou als directe collega. Met zijn drieën vulden we elkaar perfect aan. Jouw motiverende woorden en luisterend oor als het ging over mijn promotie en je trots als er weer een publicatie was, deden me altijd goed. Ook heb je me op statistisch vlak (regressieanalyses) een paar keer erg goed geholpen en meegeschreven aan hoofdstuk 3, dank daarvoor. Dank ook dat je mijn paranimf wilde zijn. Erg fijn om deze fase met jou te beleven. Een mooie afsluiting van onze leuke, bijzondere en soms intense (werk)jaren samen. Een afsluiting van onze vriendschap is het echter zeker niet. Ook mijn andere paranimf

Gaya wil ik bedanken. Eigenlijk is alles met jou begonnen: ons gezamenlijke afstudeeronderzoek (bij Jeroen Knipscheer) naar Bosnische vluchtelingen in de GGZ. Bedankt dat je mijn paranimf wilde zijn, bedankt voor al het geregeld en voor het zijn van een goede en leuke vriendin.

De leescommissie (Ria Reis, Sjoerd Colijn, Judi Mesman en Bert van Hemert) wil ik heel erg bedanken voor het lezen en beoordelen van mijn manuscript. Machteld Hoeve, Charlotte Geluk en Peter van de Ven, bedankt voor de statistische hulp. Dankzij jullie weet ik nu hoe ik verschillende soorten regressieanalyses, GEE analyses en meta-analyses uit moet voeren. Charlotte, daarnaast bedankt voor je bijdrage aan hoofdstuk 8. En Machteld voor je bijdrage aan hoofdstuk 5 en 7. Ik vond het ontzettend leuk om die paar keer enkele uurtjes met jou te zitten en helemaal in de statistiek te duiken. Je kunt alles zo ongelooflijk goed uitleggen, zelfs het berekenen van effectmaten bleek ineens niet meer zo ingewikkeld.

Verschillende collega's bij De Jutters en i-psy de jutters wil ik bedanken voor hun medewerking en samenwerking bij mijn onderzoek. Vooral de secretariaatsmedewerkers zijn onmisbaar geweest bij het uitzetten van de vragenlijsten, het coördineren van het onderzoek en het geven van tips en verbeterpunten. Ook mijn vier onderzoeksassistenten (Angelita, Elaine, Evert en Lih Sug) wil ik bedanken, zij hebben met veel geduld ouders en cliënten gebeld om de respons te verhogen en ontelbaar veel vragenlijsten ingevoerd. Beide directeuren van i-psy de jutters (Nannie Vervoort en Nuveyt Isitman) wil ik bedanken voor de mogelijkheid om ook daar een deel van mijn onderzoek uit te kunnen voeren. En natuurlijk Yvonne de Leur, collega bij De Jutters. Dank voor het spontaan aanbieden om een belangrijk figuur in (een voorloper van) dit boekje voor me te maken. En niet te vergeten Maaïke de van der Schueren, eveneens collega bij de Jutters. Bedankt voor het lezen van enkele van mijn artikelen en het verbeteren van de Engelse taal.

Danielle van Es, collega bij Curium-LUMC, wil ik bedanken voor al het geregeld en het meelevend, vooral in de laatste fase van mijn promotie. Ook dank voor de hartelijkheid en het welkome gevoel als ik bij Curium-LUMC kwam toen ik er nog niet werkte. En Elsa van der Molen, dank dat je mijn vraagbaak wilde zijn bij de laatste fase.

Overige collega's bij De Jutters, i-psy de jutters en Curium-LUMC: bedankt voor de gezelligheid (het is zeker niet onbelangrijk om altijd graag naar je werk te gaan) en het vaak geïnteresseerd vragen naar de voortgang van mijn onderzoek. Mijn drie collega's bij het RDI project (Erica, Dagmar en Martiene) wil ik speciaal even noemen, jullie hebben de overgang naar een nieuwe baan erg prettig gemaakt, dank hiervoor.

Dan natuurlijk het thuisfront. Als eerste mijn ouders en zusje, door jullie heb ik absoluut de allerfijnste jeugd gehad die een kind zich wensen kan. Het is door de waarden en normen die jullie mij meegegeven hebben en door de dingen die we beleefd hebben dat ik een grote interesse heb in andere culturen en altijd de positieve dingen in mensen zoek en probeer te begrijpen waarom iemand is geworden zoals hij is. Mama, bedankt voor het maken van het schilderij dat nu de voorkant van mijn proefschrift siert. Mama, papa en Mette, bedankt voor jullie liefde en trots. Fijn om altijd jullie warmte te voelen. Ook mijn schoonmoeder Annemieke wil ik noemen, ontzettend leuk om jou nu als familie te hebben en heerlijk dat we over zoveel dingen zo goed kunnen praten. We delen duidelijk heel veel dezelfde interesses, zo ook het onderwerp van mijn proefschrift.

Ik ga hier geen namen noemen van vrienden en vriendinnen, degenen waarover ik het heb weten het wel. Maar wat ben ik blij met jullie!

Mijn eigen gezinnetje: Elwin, Tygo en de kleine man die eraan komt. Wat ben ik gelukkig, ik kan me geen betere vriend/partner/liefde voorstellen en geen lievere en leukere zoon (al wordt de tweede net zo lief en leuk, dat weet ik nu al). Moeder zijn is het mooiste dat er is, vooral samen met zo'n leuke vader. Zonder jullie ben ik nergens. Elwin, bedankt voor al de uren en het geduld die je in de opmaak van mijn boekje hebt gestopt. Door jou is het zo mooi geworden. Ik verheug me op onze toekomst en alle leuke dingen die we als gezin nog gaan beleven.

CURRICULUM VITAE

Anna de Haan was born in Utrecht, The Netherlands. During her primary school period she lived in Botswana for a couple of years. After that she moved back to Utrecht and then to Maastricht. Here she completed high school in 2000.

The year after high school she went to England and France for language courses in combination with part-time jobs. In 2001 she moved to Utrecht and started studying psychology at the University of Utrecht. During her student years she joined USR Triton where she was active in race rowing ('wedstrijdroeien') for a year. In 2005 she travelled through Malaysia and Thailand. She graduated in 2006 with a Master's Degree in Clinical Psychology. Her free choice subjects, her internship, and her final thesis were all dedicated to the topic of multicultural psychology. After graduating she travelled through several countries in Middle and South America for five months.

She started working at Stichting De Jutters (Centre for Child and Adolescent Psychiatry) in 2007 at the scientific research department. She worked together with Dr. Albert Boon on a research project on the accessibility of youth mental health care for ethnic minority youth. From 2009 this project was supervised by Prof. dr. Joop de Jong and Prof. dr. Robert Vermeiren. During her years at De Jutters she also worked as a projectleader for the implementation of ROM, and she was involved in several other minor research projects. As of April 2014 she works as a projectleader for the RDI project, as a researcher, and as a supervisor of final thesis students at Curium-LUMC (Academic Centre for Child and Adolescent Psychiatry).

Anna lives in Bunnik with her partner Elwin and their son Tygo. They are expecting their second son in October this year.

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