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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)

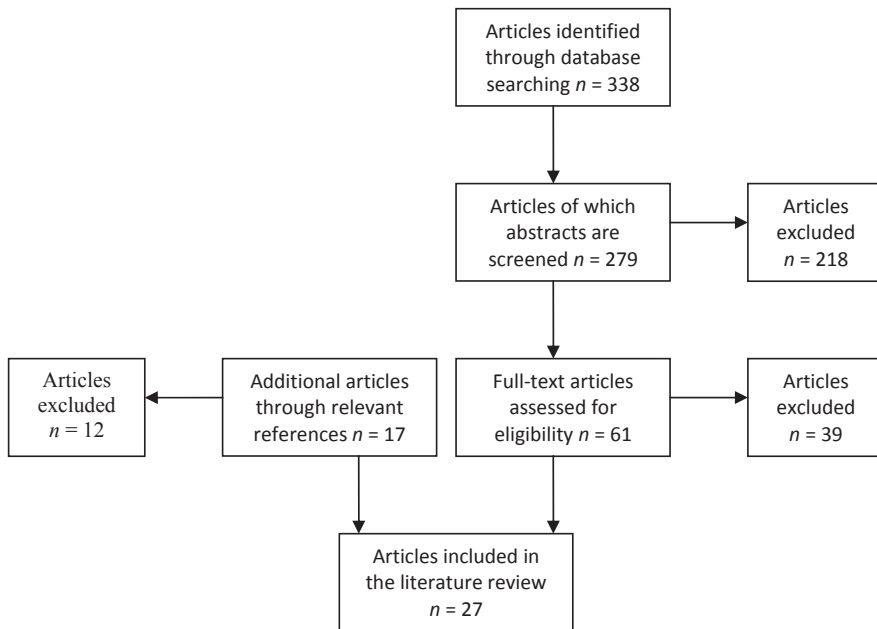
- (unilateral termination AND therapy) OR (unilateral termination AND psychotherapy) OR (unilateral termination AND treatment) AND (ethnicity OR ethnic background OR minority background)

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 and skills training and Parent management training Oppositional, aggressive, antisocial behavior disorders	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 Oppositional, aggressive, antisocial behavior disorders	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% class 2	Self-identification 63.6% White, 26.9% African-American, 6.6% minority	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 =

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	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% 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	Not completing all therapy sessions for which they were scheduled	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. = 34.9% Caucasian = 34.9% 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 parent 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%

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)	Surinamese, 22.9% African, 24.3% other	the therapist the therapy should have been continued).
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)	No information on treatment type Oppositional, aggressive, antisocial behavior disorders Cognitive problem-solving skills training and management training Parent management training 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. 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. 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)	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.	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 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.
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	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

Early d.o. = 30.6% Late d.o. = 29.1%

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. Refusal = 20,5% Predictors refusal: considered less urgent at the time of referral, multiple referral reasons. No differences in terms of ethnicity 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 Predictors: null findings emerged in exploring for differences between Hispanic/Latino and Euro-American completers and non-completers.
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.	d.o. = 61,6% 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 Predictors: null findings emerged in exploring for differences between Hispanic/Latino and Euro-American completers and non-completers.
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.	d.o. = 22,6% Predictors: null findings emerged in exploring for differences between Hispanic/Latino and Euro-American completers and non-completers.
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.: discontinuing before receiving the median number of sessions (eight).	No d.o. 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
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	d.o. = 33% Predictors: Asian American were more likely to be discharged for

(2005)	United States	25.1% no high school, 38.5% completed high school, 36.4% college 49.3% annual income < 20000	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. Shreffel et al. (2005)	91 (12-18) United States	Poverty index of Hollingshead and Redlich 20% very poor, 19% poor, 39% working class, 12% upper-middle class, 9% upper class	Definition by race 47% White, 47% African American, 6% other	Multidimensional family therapy Substance abuse disorders	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)	186 (5-17) United States	Medicaid health coverage was the indicator for low-to middle-class range of SES 55% received Medicaid coverage	Definition by race 67.9% Caucasian, 28.3% African American, 0.5% Hispanic, 3.3% other/mixed	No information on treatment type All types of mental health disorders	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 indicated as dropout were included No predictors: ethnic background, socioeconomic status
20. Miller et al. (2008)	447 (2-17) United States	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 All types of mental health disorders	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	Predictors: lower income, Axis-I adjustment disorder, no Axis-IV stressors No predictors d.o. 1 and 2: ethnic background Predictor shorter treatment duration: African American d.o. 1) = 17% d.o. 2) = 38.6% d.o. 3) = 66.2% attended fewer sessions
22. Gonzales et al. (2011)	197 (5-18) United States	Medicaid health coverage was the indicator for low-to middle-class range of SES 67% received Medicaid coverage	Definition by race 49.7% Caucasian, 24.4% African American, 15.7%	No information on treatment type Clinically significant anxiety disorders	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 = 12.7% early =

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	treatment (0-1 sessions), early (2-6 sessions), late (> 6 sessions)	14,2% late = 24,4%
					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: youths were classified as dropouts if they attended less than 12 sessions within 4 months A treatment was considered prematurely terminated if there was a 90-day gap in care.	predicators def 1: African-American ethnicity, single caregiver household predicators def 2: African American ethnicity, Hispanic ethnicity, single caregiver household, having Medicaid insurance predicators def 3: Hispanic ethnicity, living with non-biological family, longer wait time	d.o. with def 1 = 63,1% d.o. with def 2 = 56,6% d.o. with def 3 = 88,1%
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 and outpatient therapies, intensive community-based services	Individual, family, and group and outpatient therapies, intensive community-based services Attention-Deficit Hyperactivity Disorder Parent-Child Interaction Therapy Externalizing behavior problems and developmental delay or borderline developmental delay	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)	d.o. = 38% (within 6 months after treatment started)
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 behavior problems and developmental delay or borderline developmental delay	Not finishing all planned therapy sessions	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) No predictor: socioeconomic status	d.o. = 50%
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	Prior to the initiation of therapy: discontinuing services at any point after completion of the initial assessment packet but prior to the	Predictors d.o. prior to treatment: ethnic minority status, severity of hyperactive/impulsive and CD symptoms, single-parent	d.o. prior to treatment = 22% d.o. during

	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)	Self-identification Medi-Cal status (patients qualifying for Medi-Cal considered as being in poverty) United States	No information on treatment type All types of mental health disorders (disorders that feature psychotic symptoms and often require medication were defined as serious)	Clients not returning to the mental health facility after the first session. Length of treatment (total number of sessions) was taken into account.	Predictors for adolescents: more serious admission diagnosis, no ethnic match with therapist (accounted for African Americans, Mexican-Americans and Asian-American, not for Caucasian-Americans), Predictors for children: none, no effect of ethnic match	No d.o. percentages
16. Wintersteen et al. (2005)	600 (12-18) United States	Definition by race 61% Caucasian, 32% African American, 7% Latino	Attending less than two-thirds of the intended treatment sessions	Predictors: no ethnic match between therapist and patient (especially a Caucasian therapist with a minority patient), no gender match between therapist and patient (especially female therapist with male patient)	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 internalizing and externalizing problems as judged by the adolescents, fewer externalizing problems as judged by the parents, reduction in both parent-therapist and adolescent-therapist alliance from session one to session two for African American families	No d.o. percentages

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 as 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 importance 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.

