

Chapter 1

General Introduction

MENTAL HEALTH

Mental health is defined as a general state of mental and social well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community (World Health Organization, 2014).

Mental ill health refers to the presence of psychiatric symptoms or *mental health problems*. Mental health problems can be temporary, related to stressful circumstances, and do not necessarily lead to mental illness. Such problems can be investigated by administering questionnaires.

Mental illness refers to the presence of *psychiatric disorders*, in which psychiatric symptoms are so severe that functioning is impaired and professional treatment is needed. Psychiatric disorders can only be diagnosed by assessment of a mental health care professional (Doreleijers et al., 2006).

Worldwide studies have examined the prevalence of *mental health problems* in ethnic minority youth compared to majority youth. Some studies found higher rates of mental health problems in ethnic minorities and others reported lower or similar rates. These results were found depending on what types of mental health problems were studied (externalizing or internalizing symptoms), characteristics of the countries ethnic groups originated from and of the countries they migrated to, and the informants and methodologies used (Stevens & Vollebergh, 2008; Belhadj et al., 2014a; Belhadj et al., 2014b). A consistent finding on mental health is the increased *risk for psychotic disorders* in many ethnic minority groups in (young) adulthood (Bourque et al., 2011). Research results considering social problems, as a measure of social well-being and functioning, are also much clearer. Ethnic minority youth is generally overrepresented in *delinquency* rates (Morenoff & Astor, 2006). So although results on prevalence of mental health problems may be mixed, ethnic

minority youth seems to be at higher risk of severe psychiatric conditions later in life and poor social well-being.

Multiple underlying processes may be responsible for ethnic differences in mental health. According to the vulnerability-stress model, mental health problems will develop when the balance between *risk and protective factors* is disturbed (Ingram & Luxton, 2005). Risk and protective factors lie at multiple levels of causation, including child, family, school, peer and neighbourhood level (Susser et al., 2006). Some factors are uniformly associated with mental health problems. Other factors can have different effects in subgroups of children, for example for boys or girls or depending on the age (Doreleijers et al., 2006). This may also apply to subgroups of different ethnicities. Specific to ethnic minorities, factors associated with migration, the minority position or cultural background at ethnic minority group level should be taken into account as well (Garcia et al., 1996; Stevens & Vollebergh, 2008).

As mental health problems seem equally or more prevalent in ethnic minority youth, it is striking that access to youth mental health care is generally lower for

these youths as compared to majority youths (Angold et al., 2002). In addition, when they are reached, ethnic minority youth is less likely to be effectively treated and retained by youth mental health care services (Ingoldsby, 2010; de Haan, 2014). Contrary to observations in regular mental health care, ethnic minority adolescents are overrepresented in forensic youth mental health care (Boon et al., 2010).

It is clear that more research on the mental health of ethnic minority youth is needed. Not only to investigate the prevalence of different types of mental health problems and the extent to which such problems evolve in actual psychiatric disorders in ethnic groups, but also to improve understanding of risk and protective factors associated with these matters. Together with adequate *identification* of mental health problems and psychiatric disorders in ethnic minority youth, timely and effective preventive and treatment interventions tailored to the needs of these youths can be developed.

Given the inconsistency in results to date and the heterogeneity of social and cultural characteristics of ethnic groups and receiving countries, such research should be carried out in specific ethnic groups separately. Also, as cross-cultural biases in reporting exist (Jastrowski Mano et al., 2009; Goodman et al., 2012), different sources of information should be used.

This thesis focuses on the prevalence, risk and protective factors and identification of mental health problems, psychiatric disorders and delinquency in ethnic minority youth in the Netherlands.

ETHNIC MINORITY YOUTH IN THE NETHERLANDS

In this thesis the ethnic classifications as defined by Statistics Netherlands and the World Bank are used. According to the definitions of Statistics Netherlands (Statistics Netherlands, 2015), children are categorized as Dutch when both parents were born in the Netherlands (hereafter referred to as majority youth or Dutch).¹ Children are categorized as belonging to an ethnic minority group when they and one or both of their parents (first-generation migrants) or when one or both of their parents (second-generation migrants) were born in a foreign country (hereafter referred to as ethnic minority youth). In case of parents with two different foreign countries of birth, the mother's country of birth is used to define the child's ethnic group.

On January 1, 2014, the percentage of non-Western² ethnic minority youth under 20 in the Netherlands was 16.6% (Statistics Netherlands, 2014). The four largest groups were first- or second-generation migrants originating from Morocco (3.7%), Turkey (3.2%), Suriname (2.2%) and the (former) Dutch Antilles and Aruba (1.2%). Most children of these groups were second-generation migrants

¹ This method will have misclassified 1.7 % of Moroccan-Dutch youth as ethnically Dutch, because not their parents, but their grandparents were born in Morocco (third-generation migrants). The third generation of Moroccan migrants in the Netherlands is small (Statistics Netherlands, 2010a).

² Statistics Netherlands divides ethnic minority youth as originating from non-Western (countries in Africa, Latin-America and Asia, and Turkey) and Western countries (countries in Europe, North-America and Oceania, and Indonesia and Japan).

(Morocco: 97.2%, Turkey: 95.9%, Suriname: 94.9%, (former) Dutch Antilles and Aruba: 82.0%). Therefore, children from these groups are hereafter referred to as Moroccan-Dutch, Turkish-Dutch, Surinamese-Dutch and Antillean-Dutch youth.

In this thesis, Moroccan-Dutch and Turkish-Dutch youth are studied separately. The remaining minority children were classified as originating from other low- and middle-income countries (LMIC- Dutch) and other high-income countries (HIC-Dutch) according to the World Bank income groups (World Bank, 2012).

Moroccan men originally came to the Netherlands as labour migrants (1960-1973). Later on, their families followed (1973-1989) and the growing Moroccan community started to form families by bringing spouses from Morocco to the Netherlands (from 1990) (CGM, 2015). Most Moroccans in the Netherlands originate from the Rif, a mountainous region in the north of Morocco, where Berber (Tamazight) languages are spoken. A smaller part originates from big cities in Morocco, like Casablanca, Marrakech or Rabat, where Moroccan Arabic is spoken (Fokkema et al., 2009). Nowadays, Moroccan-Dutch youth generally live in low-income families within disadvantaged urbanized neighbourhoods, have a low social status and are exposed to the highest degree of discrimination (Stevens et al., 2003; Veling et al., 2007b; Dagevos et al., 2014). In addition, they have a relatively wide cultural gap to the majority group (Stevens et al., 2003).

Turkish men also originally came to the Netherlands as labour migrants in the 1960s and early 1970s, followed by their families later on. After the period of labour migration, groups of Christians and Kurds from South-East Turkey came to the Netherlands as refugees (CGM, 2015). Nowadays, Turkish-Dutch youth also generally have a low socioeconomic status (SES), but have a less disadvantaged social position in terms of social status and exposure to discrimination as compared to Moroccan-Dutch youth (Stevens et al., 2003; Veling et al., 2007b; Dagevos et al., 2014).

Mental health problems, psychiatric disorders and delinquency

Prevalence

Over the past two decades, several studies have examined ethnic differences in the prevalence of mental health problems in the Netherlands. Most studies differentiating specific ethnic groups have been carried out in Moroccan-Dutch and Turkish-Dutch youth (Bengi-Arslan et al., 1997; Crijnen et al., 2000; Stevens et al., 2003; Janssen et al., 2004; Wissink et al., 2008; Zwirs et al., 2011; Buist et al., 2014). Which is not surprising because in this period of time the growing Moroccan and Turkish communities started forming families and having (second-generation) children. Like was found in other European countries or the United States (Stevens & Vollebergh, 2008; Belhadj et al., 2014a; Belhadj et al., 2014b), inconsistent results on ethnic differences were found depending on whether externalizing or internalizing problems were studied and the informants used.

Generally, Moroccan-Dutch youth shows more externalizing problems on teacher reports (Stevens et al., 2003; Zwirs et al., 2011), equal externalizing problems on parent-report (Stevens et al., 2003), and equal (Wissink et al., 2008) or less (Stevens et al., 2003; Buist et al., 2014) externalizing problems on self reports as

compared to Dutch youth. Moroccan-Dutch youth shows less or equal self-reported or teacher-reported internalizing problems (Stevens et al., 2003; Zwirs et al., 2011; Buist et al., 2014), although parents reported more internalizing problems as compared to Dutch youth (Stevens et al., 2003).

Turkish-Dutch youth showed equal self-reported or teacher-reported externalizing problems (Crijnen et al., 2000; Janssen et al., 2004; Wissink et al., 2008; Zwirs et al., 2011), while parents reported more externalizing problems compared to Dutch youth (Bengi-Arslan et al., 1997). Turkish-Dutch youth showed more internalizing problems on self reports and parent reports (Bengi-Arslan et al., 1997; Janssen et al., 2004) and equal (Crijnen et al., 2000) or less (Zwirs et al., 2011) internalizing problems on teacher reports compared to Dutch youth.

One study compared the prevalence of psychiatric disorders between ethnic groups using best-estimate diagnoses based on parent, child and teacher information. They found no differences in prevalence of psychiatric disorders between minority (Moroccan-Dutch, Turkish-Dutch and Surinamese-Dutch) and majority (Dutch) children from low SES, urbanized neighbourhoods in two large cities in the Netherlands (Zwirs et al., 2007).

In adulthood, increased risks for psychotic disorders have been found for all four large ethnic minority groups in the Netherlands (Selten et al., 1997; Selten et al., 2001; Veling et al., 2006). Whereas risks were particularly high for second-generation male migrants from Morocco, only one study found an increased risk in Turkish-Dutch second-generation migrants (Veling et al., 2006). Clinical psychotic disorder usually becomes manifest in adolescence or early adulthood (Murray et al., 2002). Therefore, the prevalence of psychotic disorders in children and adolescents is low. Interestingly though, studies have found that children who have psychotic experiences are at higher risk to develop psychotic disorders later in life (Poulton et al., 2000; Welham et al., 2009; Zammit et al., 2013). Also, a younger age at migration or being a second-generation migrant (i.e. being born in the country parents migrated to) was associated with a higher risk for psychotic disorders (Veling et al., 2006; Veling et al., 2011), suggesting that adverse circumstances during early life increase vulnerability to adult psychotic disorders in ethnic minorities (Cannon & Clarke, 2005; van Os et al., 2010; Veling & Susser, 2011). If psychotic experiences in childhood are predictive of adult psychotic disorders and the increased risk for psychotic disorders among ethnic minorities develops in early life, the prevalence of psychotic experiences should already be higher in ethnic minority youth (Collip et al., 2008; Van Os et al., 2009). In the Netherlands, two general population studies found higher levels of delusions and persistent psychotic experiences in ethnic minority compared to majority youth, but they did not differentiate between specific ethnic groups (Wigman et al., 2011; Eilbracht et al., 2015).

Considering delinquency rates, results obtained in the Netherlands also indicate that ethnic minority youth and particularly second-generation migrants are overrepresented in crime statistics. In addition, ethnic minority youths are younger when they are arrested for the first time. Especially subgroups of Antillean-Dutch and Moroccan-Dutch are overrepresented in police records (Blom et al., 2005; Blokland et al., 2010).

In sum, in line with international research, studies among ethnic minority youth in the Netherlands showed inconsistent results on ethnic differences in the prevalence of mental health problems depending on the types of problems and ethnic groups studied and the informants used. Furthermore, the risk for psychotic disorders and delinquency is increased in some ethnic minority groups in the Netherlands.

Risk and protective factors

Ethnic differences in mental health may be attributed to biological and psychological factors, but social factors associated with ethnicity seem to be most important (Stevens & Vollebergh, 2008; Veling & Susser, 2011). One possible construct may be the disadvantaged ethnic minority position many ethnic minority youths have in the Netherlands, characterized by a low SES, a high degree of experienced discrimination and low access to social support (Stevens & Vollebergh, 2008; Veling & Susser, 2011). The degree to which such social disadvantage is present among different ethnic groups varies (Armenta & Hunt, 2009; Dagevos et al., 2014) and could explain differences in the prevalence of mental health problems *between* ethnic groups (Phelan et al., 2010). However, while social disadvantage may partly explain why mental health problems are more prevalent in socially disadvantaged ethnic minority groups, it does not explain which members of these groups will develop such problems. Therefore, studies carried out *within* socially disadvantaged ethnic minority groups are needed.

Most studies in the Netherlands did not investigate whether known risk and protective factors have different effects in ethnic minority youth. These studies were carried out within Moroccan-Dutch and Turkish-Dutch youth and generally found similar risk and protective factors (Sowa et al., 2000; Murad et al., 2004; Stevens et al., 2005a; Stevens et al., 2005b; Stevens et al., 2007a; Paalman et al., 2011), complying with general theories on the development of mental health problems in children and adolescents (Doreleijers et al., 2006). Studies that did investigate whether risk and protective factors had different effects in subgroups of different ethnicities both supported (Eichelsheim et al., 2010; Buist et al., 2014) and rejected (Dekovic et al., 2004) the ethnic equivalence model, which holds that the influence of risk and protective factors is similar for different ethnic groups (Lamborn & Felbab, 2003). A complicating matter in investigating whether known factors act differently is that ethnic minority and majority youth generally do not grow up in comparable social contexts, making it a challenge to disentangle ethnicity from social factors.

The higher prevalence of psychotic disorders and delinquency in second-generation migrants in the Netherlands suggests that the influence of other factors at ethnic group specific level may be substantial in the development of mental health problems in ethnic minority youth. In addition, although only few differences in the level of mental health problems between first-generation and second-generation Moroccan-Dutch and Turkish-Dutch youth were found (Murad et al., 2004; Stevens et al., 2005a; Stevens et al., 2005b), the fact that research in these groups started at the same time as the second generation of these group came up,

may indicate that elevated levels of mental health problems attracted attention to this group. Studies on risk and protective factors at ethnic minority group level in Moroccan-Dutch youth showed that ambivalent acculturated girls had more mental health problems than integrated or separated girls and that discrimination was associated to mental health problems (Stevens et al., 2005a; Stevens et al., 2005b; Stevens et al., 2007b).

Identification

In the Netherlands, ethnic minority youth is underrepresented in youth mental health care (de Haan et al., 2012). Regardless of high mental health problems scores in schoolchildren, ethnic minority youth was less likely to receive treatment compared to Dutch children (Zwirs et al., 2006b; Verhulp et al., 2013; Bevaart et al., 2014). Also, when ethnic minority youth is reached by youth mental health care, dropout is higher among these youths as compared to majority youth (de Haan, 2014). These results clearly indicate that the access to regular youth mental health care is lower for ethnic minority youth as compared to majority youth. At the same time, ethnic minority adolescents are overrepresented in forensic youth mental health care (Boon et al., 2010).

Parents play an important role in the early detection of mental health problems and help seeking behaviour in youth (Verhulst & Koot, 1992). However, detection of externalizing psychiatric disorders and problem perception of mental health problems was lower among parents belonging to the ethnic minority group than for parents belonging to the ethnic majority (Zwirs et al., 2006a; Bevaart et al., 2012). Also, low problem perception of internalizing problems of parents and adolescents was associated to lower mental health care use (Verhulp et al., 2013). At the same time, severity of mental health problems as perceived by teachers predicted mental health care use of ethnic minority youth (Bevaart et al., 2014), suggesting that obtaining information from teachers may be helpful in identifying those children most in need of mental health care services. Therefore, early identification of psychiatric disorders by school-based screening in combination with offering timely interventions might provide a pathway to care ethnic minority youth and an opportunity to bridge the treatment gap observed in this group. However, since most screening instruments have been developed for Western majority youth and cross-cultural biases are likely to influence psychometric properties (Jastrowski Mano et al., 2009; Goodman et al., 2012), it is not known if and how these questionnaires can be used in ethnic minority youth.

CURRENT THESIS

This thesis has three **general aims**. The first aim is to investigate how the prevalence of internalizing and externalizing problems, and psychotic experiences differs between ethnic minority and majority youth (chapter 2 and 3). Second, to examine which risk and protective explain mental health problems between ethnic groups, and mental health problems, psychiatric disorders and delinquency within ethnic minority youth (chapter 3, 4 and 5). The third aim is to

investigate whether school-based screening for identification of psychiatric disorders is effective in ethnic minority youth (chapter 6).

The following **data collection** took place:

- *Screening phase:* Questionnaires were administered to children and their teachers at primary and secondary schools in various social contexts throughout the Netherlands. A total number of 1,563 children and adolescents of multiple ethnicities participated.
- *Diagnostic phase:* A subsample of 152 Moroccan-Dutch youths of the screening sample scoring high or low on questionnaires measuring externalizing, internalizing or psychotic symptoms was selected. Participating children completed an intelligence and reading test, filled out a set of questionnaires, and were diagnostically assessed regarding psychiatric disorders by medical doctors. Their mothers filled out questionnaires or were interviewed on these topics in Dutch, Moroccan-Arabic or a Berber language.
- *Information from other sources:*
 - By postal code of the home addresses of the children, measures of the neighbourhood SES, urbanization and ethnic density were obtained from the Netherlands Institute for Social Research (SCP) and Statistics Netherlands (CBS) for the screening sample.
 - The National Police Intelligence Service (IPOL) of the National Police Services Agency (KLPD) provided official police records, indicating whether participants of the screening sample had been suspect of an offence.

Outline of this thesis:

In *chapter two* the prevalence and impact of psychotic experiences in ethnic minority and majority youth is investigated using multiple ethnic groups of the screening sample, as well as the cultural context of these experiences and associations with other mental health problems and social disadvantage.

In *chapter three* the prevalence of self-reported and teacher-reported externalizing and internalizing problems is investigated in ethnic minority and majority youth using the Moroccan-Dutch, Turkish-Dutch and Dutch ethnic groups of the screening sample. It examines if mental health problems are associated with (cumulative) social disadvantage, in terms of a low SES, perceived discrimination and limited resources of social support and if any ethnic differences in the prevalence of mental health problems can be explained by cumulative social disadvantage.

In *chapter four* it is examined which risk and protective factors at child, family, school, peer, neighbourhood and ethnic minority group level are associated with psychiatric symptoms and psychiatric disorders in the Moroccan-Dutch diagnostic sample.

In *chapter five* underlying processes by which acculturation and perceived discrimination could explain the particularly high delinquency rates observed in

second-generation migrants are examined in Moroccan-Dutch adolescents of the screening sample using official registered delinquency.

In *chapter six* it is investigated if school-based screening for psychiatric disorders, using screening data of children and teachers and diagnostic interviews by medical doctors, is effective in Moroccan-Dutch.

In *chapter seven* the key findings are summarized and discussed. Important limitations are considered and implications of the findings and directions for future research are presented.