

# **Chapter 7**

## **Summary and General Discussion**

The general aim of this thesis was to investigate the prevalence, risk and protective factors and identification of mental health problems, psychiatric disorders and delinquency in ethnic minority youth in the Netherlands. This chapter presents the key findings of the studies described in chapters two to six. These findings will be discussed including the strengths and limitations, implications, and directions for future research.

## SUMMARY OF KEY FINDINGS

In **chapter two** the prevalence, impact and cultural context of psychotic experiences (PE), and associations with other mental health problems and social disadvantage was investigated in ethnic minority and majority youth. Compared to Dutch youth, Moroccan-Dutch, Turkish-Dutch, and other ethnic minority youth, reported more PE with high impact. Differences between ethnic groups remained after examining measures to account for cultural or religious explanations. PE with high impact were associated with the following risk factors: other mental health problems, experienced trauma, perceived discrimination, and a high family socioeconomic status (SES). It was concluded that the increased risk for psychotic disorders in ethnic minorities may already be detectable in childhood. Support was found for perceived discrimination as an important aspect of social disadvantage in explaining the excess risk for psychosis among ethnic minorities. The additional measurement of impact of PE appears to be a valid approach to identify those children at risk to develop psychotic or other more common psychiatric disorders.

In **chapter three** the prevalence of externalizing and internalizing problems, and associations with (cumulative) social disadvantage in ethnic minority and majority youth was investigated. Moroccan-Dutch youth and Turkish-Dutch youth had more externalizing problems and fewer internalizing problems as compared to Dutch youth. The risk of mental health problems increased with the degree of social disadvantage, in terms of a low SES, perceived discrimination and limited resources of social support, in a dose-response fashion. These associations were found in all ethnic groups. The higher prevalence of externalizing problems among ethnic minority youth was partly explained by their disadvantaged ethnic minority position. The findings suggest social factors that are associated with ethnicity are likely to explain mental health problems in ethnic groups.

In **chapter four** associations between risk and protective factors and mental health problems were examined in Moroccan-Dutch youth. Risk and protective factors were measured child, family, school, peer, neighbourhood and ethnic minority group level. Multi-informant questionnaire data on psychiatric symptoms and interview data on psychiatric disorders were used to divide children into three levels of mental health problems. Associated risk factors for both psychiatric symptoms and psychiatric disorders were psychopathic traits, parental conflict, affiliation with delinquent peers and perceived discrimination. Specific risk factors for psychiatric symptoms were experienced trauma and growing up in a large family. Cultural mistrust was only associated with the presence of a psychiatric disorder. Protective factors for the presence of psychiatric symptoms and

psychiatric disorders were self-esteem, parental monitoring, orientation to Dutch and/or Moroccan culture, a strong ethnic identity and behavioural orientation to Dutch culture. Positive affiliation with religion was a unique protective factor for psychiatric disorders. Summarized at the different levels of risk and protective factors, the most important risk factors were found at family level (parental conflict and parental discipline) and ethnic minority group level (discrimination and cultural mistrust). The most important protective factors were found at ethnic minority group level (a strong ethnic identity and orientation to Dutch culture).

In **chapter five** the associations between acculturation strategy, perceived discrimination and delinquency as registered by the police was examined in an ethnic minority group that is overrepresented in the Dutch crime records; Moroccan-Dutch adolescents. Compared to Moroccan-Dutch youth with integration (i.e. high orientation to Dutch and Moroccan culture) or separation (i.e. low orientation to Dutch and high orientation to Moroccan culture) strategies, the prevalence of official registered delinquency was higher among Moroccan-Dutch adolescents with a marginalization (i.e. low orientation to Dutch and Moroccan culture) strategy. Delinquency levels only increased with degree of perceived group discrimination in Moroccan-Dutch adolescents with an integration or separation strategy but not in youth with a marginalization strategy.

In **chapter six** the effectiveness of school-based screening for psychiatric disorders in Moroccan-Dutch youth was studied. The Strengths and Difficulties Questionnaire (SDQ) predicted psychiatric disorders with a good degree of accuracy, especially when the self-report and teacher report were combined. The additional assessment of internalizing symptoms with subscales of the Social and Health Assessment (SAHA) improved identification of internalizing psychiatric disorders. It was concluded that school-based screening for psychiatric disorders is effective in Moroccan-Dutch youth. Carrying out routine school-based screening in combination with offering accessible non-stigmatizing interventions to children scoring high on screening questionnaires was suggested.

## GENERAL DISCUSSION

### Prevalence

The results in this thesis suggest that ethnic minority youth, and in particular Moroccan-Dutch youth, has a different profile of mental health problems compared to Dutch majority youth. This profile is marked by more PE and externalizing problems, and less internalizing problems. However, as early psychiatric symptoms in childhood and adolescence are emerging and have often not yet developed into a well-defined psychiatric disorder (McGorry et al., 2010), it is not known how outcomes of mental and social well-being will be later in life. One study in the Netherlands investigated the extent to which mental health problems in Turkish-Dutch youth were related to mental health in adulthood. Although Turkish-Dutch adolescents and adults had more externalizing and internalizing problems than Dutch individuals of the same ages, ethnic differences in prevalence of mental health problems between Turkish-Dutch and Dutch groups decreased for both types of problems in transition from adolescence to

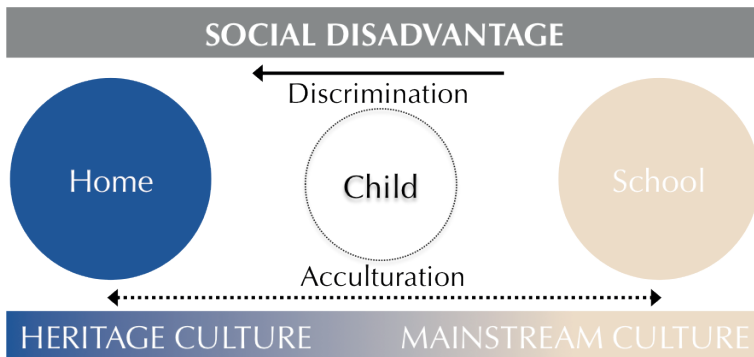
young adulthood (van Oort et al., 2007a). This is in line with an American study on longitudinal trends in ethnic disparities from adolescence to young adulthood (Harris et al., 2006). Considering social well-being, the presence of mental health problems in adolescence predicted poorer educational attainment in Turkish-Dutch woman (van Oort et al., 2007b). In addition, Turkish-Dutch adults more often had a lower occupational level than Dutch adults, partly explained by mental health problems in adolescence (van Oort et al., 2007c). In sum, studies on other minority groups indicate that child mental health problems are associated with poorer social-well being later in life, but that ethnic disparities in mental well-being tend to decrease with age.

Dutch crime statistics showed that the Moroccan-Dutch population has a higher peak in delinquency rates in late adolescence and young adulthood as compared to the conventional age-crime curve, but that thereafter the overrepresentation as compared to the Dutch population declines with age (Jennissen, 2009). As some externalizing symptoms correspond with delinquent behaviour, possibly the higher prevalence of externalizing problems observed in Moroccan-Dutch youths as compared to Dutch youth is limited to the transition from adolescence to adulthood as well.

However, particularly Moroccan-Dutch second-generation male migrants do have a very high risk to develop psychotic disorders (Veling et al., 2006). Although PE in childhood are predictive of both later psychotic disorders and other more common psychopathology (Poulton et al., 2000; Welham et al., 2009; Wigman et al., 2011; Kelleher et al., 2012b; Zammit et al., 2013; Downs et al., 2013), PE are common in childhood and in most cases transient and are not pathological (Van Os et al., 2009; Kelleher et al., 2012a; Linscott & Van Os, 2013). On the other hand, a psychotic disorder is a clinical syndrome with severe and long-lasting effects on mental health and functioning (Murray et al., 2002). Therefore, it is important to take the presence of PE, and the higher prevalence of high impact PE observed in ethnic minority youth as compared to majority youth, into account in prevention and treatment programs. The additional measurement of impact of PE could specify the genuine high-risk group and identify those children most at risk. Such an approach is in line with definitions of psychiatric disorders in classification systems such as DSM and ICD, as well as the psychosis continuum hypothesis (Van Os et al., 2009) and clinical staging models (McGorry et al., 2010).

### **Risk and protective factors**

In this thesis, social factors seem to be most important in explaining the specific mental health profile observed in ethnic minority youth. We found that the degree to which specific factors constituting the disadvantaged ethnic minority position is cumulatively present among Moroccan-Dutch, Turkish-Dutch and Dutch youth, explained differences in the prevalence of mental health problems between ethnic groups. In the context of social disadvantage, factors at family and ethnic minority group level explained differences in the prevalence of mental health problems within ethnic minority youth. We placed main risk and protective factors for mental health in ethnic minority youth in a model, which is shown in figure 7.1.



**Figure 7.1: Model of main risk and protective factors influencing mental health in ethnic minority youth**

The presented model may be relevant for other ethnic minority groups that share characteristics with or face problems similar to those of the ethnic minority youth in the Netherlands. The challenge of growing up in social disadvantage and in two cultures is especially problematic when (i) the degree of social disadvantage and discrimination is high, (ii) the gap between heritage culture and mainstream culture is large, (iii) attitudes of the mainstream society to ethnic minorities are negative, and (iv) parents face difficulties in guiding their children in growing up in two cultures, in the context of social disadvantage.

As these characteristics accumulate in the Moroccan-Dutch population (Stevens et al., 2003; Veling et al., 2007b; Dagevos et al., 2014), it is not surprising that this group is particularly marked by high prevalence rates of externalizing problems, psychotic disorders and delinquency (Stevens et al., 2003; Blom et al., 2005; Veling et al., 2006; Blokland et al., 2010; Zwirs et al., 2011).

Second-generation migrants, who themselves were born in the receiving country are likely to become more oriented to the mainstream culture. Their parents, who were born in the country of origin, are likely to stay more oriented to heritage culture (Dagevos et al., 2014). In this way, second-generation migrants are more likely to experience the cultural gap between principal social contexts like home and school (ii), and the acculturation gap with their parents (iv). As acculturation problems hence are more likely to develop, and the vulnerability to discrimination can increase, such mechanisms can explain the high prevalence of externalizing problems and the clear higher prevalence of psychotic disorders and delinquency in second-generation migrants (Cantor-Graae & Selten, 2005; Blom et al., 2005; Bui & Thongniramol, 2005; Morenoff & Astor, 2006; Stansfield, 2012).

In the next paragraphs, elements of the model presented above and how they would contribute to developing a specific mental health profile characterized by externalizing problems and PE are discussed.

#### *Growing up in social disadvantage*

In chapter three, aspects of social disadvantage, in terms of a low SES, perceived discrimination and limited resources of social support, were associated to mental health problems in all youth, regardless of ethnical background. Social

disadvantage frequently has been associated with child mental health problems and adult psychiatric disorders (Stevens & Vollebergh, 2008; Morgan et al., 2010). Several theories can help explain the association between social disadvantage and mental health problems, and particularly with externalizing and psychotic symptoms.

The strain theory focuses on the influence of restrictions in achieving aspired goals on the development of externalizing problems or delinquency (Merton, 1956). Socially disadvantaged ethnic minority youth face limited structural opportunities in housing, education and occupation because of their disadvantaged position and discrimination. This may create a discrepancy between aspired goals and achieved goals, which can result in feelings of frustration (strain) and subsequently in externalizing or delinquent behaviour. In line with the strain theory, prolonged exposure to social defeat, i.e. chronic discrimination and limited access to social support to buffer the negative effects of social adversity, has been put forward to explain high rates of psychotic disorders in ethnic minorities (Selten & Cantor-Graae, 2005; Selten et al., 2013). Thus, both strain theory and social defeat theory suggest that higher rates of externalizing problems and PE result from a low social position, discrimination and insufficient social support. Social disadvantage and daily hassles associated with the ethnic minority position may represent a situation of chronic social stress, which has been linked to many adverse health outcomes (Pascoe & Smart Richman, 2009). Chronic social stress has been related to activation of the hypothalamic-pituitary-adrenal (HPA) axis and mesolimbic dopaminergic hyperactivity (Howes et al., 2004), which is believed to play a central role in the pathophysiology of psychotic disorders (Laruelle, 2003). Similarly, hyper activation of the HPA axis is also associated to affective states like emotion regulation problems and affective disorders (Thompson et al., 2007).

In addition to these sociological theories and their biological link to psychiatric disorders, psychological theories may also explain the link between social disadvantage and externalizing and psychotic symptoms. Both externalizing and psychotic symptoms are associated with a general tendency to attribute negative events externally (Freeman et al., 2002). The nature of events ethnic minority youth often face, including being stereotyped, experiencing negative evaluation by others or daily hassles associated with discrimination, are more likely to lead to increased threat anticipation, anxiety and jumping to conclusions (Steele et al., 2002; Veling et al., 2007a). In an attempt to protect against negative beliefs about the self, a tendency to attribute such experiences to others persecuting the self may develop. In turn, this may lead to negative emotions directed outwards associated with the formation of externalizing symptoms and cognitive biases associated with the formation of psychotic symptoms (Freeman et al., 2002).

In sum, multiple social, biological and psychological mechanisms may be responsible for the link between a disadvantaged ethnic minority position and the specific mental health profile in ethnic minority youth.

### *Growing up in two cultures*

Regarding acculturation strategies, marginalization is associated with the poorest, and integration with the highest levels of mental and social well-being. In chapter five, orientation to any culture, whether Dutch or Moroccan, was protective against psychiatric symptoms and psychiatric disorders in Moroccan-Dutch youth. In chapter six, acculturation patterns based on our sample, were classified according to the acculturation strategies defined by Berry (2005). Marginalization (i.e. low orientation to both Dutch and Moroccan culture) was a risk factor for delinquency. In another study on our sample not included in this thesis, the integrated group reported least mental health problem, while the marginalized group reported most problems (Paalman, 2013). In accordance, a large European study on mental and social well-being in immigrant youth and an American review on youth violence found that integration was the most favourable and marginalization the most unfavourable strategy for all outcomes, that separation was associated to moderately good mental well-being but poorer social well-being and assimilation to delinquency (Soriano et al., 2004; Berry, 2005; Berry et al., 2006). These findings can be explained in various ways. When substantial differences between the heritage and mainstream culture exist, values and beliefs in principal social contexts like home and school can be in conflict with each other. As ethnic minority youths have to navigate in between, acculturation problems can occur. The confusion and stress associated with acculturation problems can lead to mental health problems, especially when a marginalization strategy is adopted (Phinney et al., 2001; Berry et al., 2006). According to ego identity theory, a sense of belonging, for example by orientation to either heritage or mainstream culture, helps to form a positive identity and stable self-image, providing guidance for important choices in life (Erikson, 1968). Whereas growing up in social disadvantage may be specifically associated to externalizing and psychotic symptoms, acculturation problems seems to be associated to externalizing and internalizing problems, as well as delinquency.

In sum, when growing up in two cultures, different types of mental health problems can develop depending on how differences between the heritage and mainstream culture are dealt with. However, being oriented to either heritage or mainstream culture, or preferably both, is associated with a better mental health in ethnic minority youth.

### *Perceived discrimination*

Whereas perceived discrimination as an important aspect of social disadvantage in ethnic minorities explained differences in mental health at group-level (chapter three), it also explained differences in mental health at individual level (chapter five). As described above, subtle and chronic forms of discrimination associated with daily hassles or chronic social stress can increase vulnerability to mental illness (Pascoe & Smart Richman, 2009). The uncontrollable, unpredictable and unfair nature of discrimination may be specific for developing externalizing en psychotic symptoms (Merton, 1956; Freeman et al., 2002).

However, the impact of discrimination seems to depend on the acculturation strategy. In our as well as in other samples, perceived discrimination was



particularly harmful when individuals were oriented to the heritage culture (Reininghaus et al., 2010; Deng et al., 2010; Paalman, 2013). In contrast, other studies showed that a strong positive ethnic identity may buffer negative influences of discrimination (Sam, 2000; Phinney et al., 2001). These contrasting findings may indicate that relation between acculturation strategies, perceived discrimination and mental health is complex. Both the adaptation of certain acculturation strategies as the degree and impact of discrimination are highly dependent on characteristics of the heritage culture of ethnic groups and attitudes of the mainstream society (Phinney et al., 2001).

#### *Home and school environment*

The development of mental health problems in ethnic minority youth seems to be related to the challenges they face when growing up in a context of social disadvantage while switching between different cultures in their daily life (home, school and street). They seem to have scarce access to adults around them who can guide them in their disadvantaged ethnic minority position. Most parents of second-generation migrants were still living in their country of origin when going through the transitional phase from adolescence to adulthood. (Dagevos et al., 2014). As a result they may not be able to adequately guide their children (Distelbrink & Pels, 2000). Therefore, the stressful and confusing process of growing up in social disadvantage in two distinct cultures have to be dealt with and discovered by ethnic minority youth themselves, which is a very difficult task for every individual and especially at a young age which is a critical period for identity development (Erikson, 1968).

#### **Identification**

As concepts and methodologies of mental health research are developed in Western societies for use in the majority population, they should be applied with caution in ethnic minorities (van de Vijver & Poortinga, 1997). However, a considerable part of youth in European countries and the United States of America belongs to an ethnic minority group. Therefore, adjustment of commonly used methodologies considering potential cross-cultural biases is needed to perform research on mental health in ethnic minority youth (van de Vijver & Phalet, 2004). In chapter six we have shown that two screening instruments, developed for use in Western populations, can be applied for the identification of psychiatric disorders in Moroccan-Dutch youth. However, norms differed substantially on self-reports, meaning that subgroup-specific norms are needed, as was found previously (van de Vijver & Phalet, 2004; Goodman et al., 2012). Norms may differ due to differences in definitions of concepts, response style, degree of social desirable answering and self-disclosure, and being accustomed to filling out questionnaires across cultures (van de Vijver & Poortinga, 1997). In addition, as the clinical presentation of depression and anxiety is often expressed by somatic symptoms in ethnic minorities, identification of internalizing problems may be most prone to such cross-cultural biases (Kirmayer, 2001). Up to now the mental health profile of ethnic minority youth is characterized by a lower prevalence of internalizing problems, which can also be caused by an lower identification of



these problems due to these biases. PE are also prone to cross-cultural biases, since such symptoms may fit the cultural or religious context in some non-Western cultures (Zandi et al., 2010; Blom et al., 2010). We solved this issue by adding questions on the cultural context and performing additional analyses. Taken these findings together, it seems justifiable to apply screening questionnaires originally developed for use in Western societies to ethnic minority youth, when cultural sensitive adjustments are added.

## LIMITATIONS

There are several limitations of the studies described in this thesis that need to be considered. First, the selection of schools was not random. Areas were preselected based on percentage of Moroccan-Dutch population in the area, but participation of schools depended on practical factors, such as other on-going projects and interest of school directors or teachers in the subject. Also, although the study was carried out throughout the Netherlands in various social contexts, we were unable to form groups of ethnic minority and majority youths that were comparable in socioeconomic terms as minorities were overrepresented in the schools in lower socioeconomic neighbourhoods and vice versa. Second, questionnaires developed in Europe or the United States of America were used. For the parent interviews, non-validated translations into Moroccan Arabic and Berber languages were used. The degree of cross-cultural biases had not been evaluated for all used questionnaires and translations in this thesis. However, we selected questionnaires that have been used worldwide and were either validated cross-culturally (Strengths and Difficulties Questionnaire, Social and Health Assessment, Family Affluence Scale, Rosenberg Self-Esteem Scale), or were developed specifically for the use in ethnic minority youth (Psychological Acculturation Scale, Discrimination Questionnaire, Cultural Mistrust Inventory), or had been used before in Moroccan-Dutch youth with good internal validity (Youth Psychopathic Traits Inventory, Networks of Relationships Inventory, Adolescent/Parent Disclosure Scale, Nijmegen Rearing Questionnaire), or were culture-fair (Raven's Standard Progressive Matrices) or had the freedom to use alternative descriptions of psychiatric symptoms in case of the semi-structured diagnostic interview (Kiddie-Schedule for Affective Disorders and Schizophrenia) or we added questions to enhance validity of the answers (PE, trauma).

Some limitations were specific to the diagnostic phase. First, there was a relatively long time lag between the screening and diagnostic phase. Group assignment into absence and presence of psychiatric symptoms and disorders can be blurred because in the meantime part of the screen negatives may have developed psychiatric symptoms (without meeting full criteria of a psychiatric disorder) and some of the psychiatric symptoms of screen positive children may have been remitted. Second, only Moroccan-Dutch youth scoring very high or average/low on selected subscales measuring mental health problems were included. Whereas this approach was useful to study risk and protective factors in Moroccan-Dutch youth exhibiting high numbers of mental health problems and a contrasting comparison group with few problems (chapter four), results on the performance of the screening instruments might be somewhat inflated (chapter six), since

Moroccan-Dutch youths with medium scores were excluded. Third, diagnoses of psychiatric disorders may have been missed because only children and not their teachers or parents were interviewed. Finally, in this study, mental health problems, psychiatric disorders and risk and protective factors were only assessed once. Since childhood and adolescence are turbulent periods, the prevalence of mental health problems varies over time. Risk and protective factors are part of dynamic underlying processes explaining ethnic differences in constant interaction and complex interplay with mental health problems. Because the measurement took place at only one time-point, we were unable to determine causal relationships.

## **STRENGTHS**

We were able to include a large multi-ethnic community sample and obtained a high participation rate. The sample of ethnic minority youth is unique because it consists of youths living both in big cities and more rural areas in the Netherlands. We particularly assessed a valuable sample of Moroccan-Dutch youth, which is a group standing out for their unfavourable social characteristics (low SES, low social status, high degree of discrimination, wide cultural gap with mainstream culture) and multiple problems (externalizing problems, psychotic disorders, delinquency, underrepresentation mental health care, dropout treatment). We used multiple informants (children, teachers, mothers), information from other sources (neighbourhood characteristics and official police records) and multiple methods (questionnaires, tests, interviews). In the screening phase we used a web-based survey and in the diagnostic phase in-depth diagnostic assessments with psychiatric interviews. Furthermore, we used cultural sensitive procedures in informing families about the study sending a letter to introduce the study in Dutch and Moroccan Arabic and subsequently using a face-to-face approach, diagnostic assessment of children by medial doctors trained in transcultural psychiatry and the possibility of being informed and interviewed in Moroccan Arabic or Berber for parents.

## **IMPLICATIONS**

This thesis shows that growing up in a disadvantaged ethnic minority position can be a threat for mental health. Youth mental health care should adjust standard identification, prevention and treatment programmes to the needs of socially disadvantaged ethnic minority youth in order to prevent and treat mental health problems, psychiatric disorders and delinquency. For example, routine school-based screening in combination with offering accessible non-stigmatizing interventions to children scoring high on screening questionnaires at school and referring severe cases to specialized mental health care centres may provide an alternative pathway to care. Such practices fit the general tendency in the Netherlands to provide timely, nearby, appropriate and matched care to children and their families, which is one of the main purposes of the reorganization of youth care initiated in 2015 (Rijksoverheid, 2015). Appropriate and matched care for ethnic minority youth includes adding elements on dealing with social disadvantage and discrimination and developing a positive (cultural) identity and

self-image when growing up in two cultures to current preventive and treatment interventions. Parents and teachers may also benefit from training to better guide children in a disadvantaged ethnic minority position in the transition from adolescence to young adulthood.

### **DIRECTIONS FOR FUTURE RESEARCH**

In future research, it is important to study the development of the specific mental health profile of ethnic minority youth into adulthood. Possibly the higher prevalence of externalizing problems decreases after adolescence like is seen in delinquency rates in Moroccan-Dutch and mental health problems in Turkish-Dutch (van Oort et al., 2007a; Jennissen, 2009). The extent to which the formation of a stable cultural identity from adolescence to adulthood in ethnic minorities contributes to the development of differences in the prevalence of mental health problems between ethnic groups should be investigated. For a better understanding of the higher incidence of psychotic disorders in ethnic minorities (Bourque et al., 2011), but also for a better understanding of the development of psychotic disorders in general, it is important to study whether PE, and particularly those with high impact, are associated with psychotic disorders later in life, following the psychosis continuum theory (Van Os et al., 2009) in a high-risk population such as ethnic minorities. In addition, it would be interesting to study the third generation of ethnic minority youths. What happens when SES increases and acculturation problems in children and the acculturation gap with parents decrease? Does the next generation adopt a similar mental health profile as Dutch youths? Is there still a higher risk for externalizing problems and psychotic disorders?

For the current generation it is important to investigate the extent to which existing programmes for identification, prevention and treatment of mental health problems are effective in ethnic minority youth and in what way they should be adjusted to their specific needs. Finally, for a better understanding and identification of internalizing problems in ethnic minorities, culture sensitive approaches should investigate the prevalence of internalizing problems, to what extent cultural variations of presentation and symptom expression exist, and in what way internalizing problems can be better identified by health care professionals.