



## Differences and similarities in posttraumatic stress between economic migrants and forced migrants: Acculturation and mental health within a Turkish and a Kurdish sample<sup>1</sup>

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**ABSTRACT.** This paper describes an empirical study that aimed to expand the limited literature about the association of acculturation with Posttraumatic Stress Disorder among immigrant ethnic minorities. The second contribution of the study is its understanding that migrants from the same country are not one separate group and for interventions to succeed, better understanding of the situation in each sub-group is required. Two samples of Turkish immigrants in The Netherlands - Turks ( $n = 222$ ) and Kurds ( $n = 130$ ) - that differ by ethnic/religious background, reasons for migration and exposure to political violence are compared. Individuals who experienced one or more traumatic events were selected. Results show that posttraumatic reactions were highly related to mental health state in both groups. In addition, a specific aspect of cultural adaptation, cultural affiliation, was significantly related to posttraumatic

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symptoms – however, in opposite direction for both groups: Turkish respondents who held to their traditions were less vulnerable for posttraumatic stress whereas Kurdish participants who lived by their traditions were more vulnerable for posttraumatic problems. The implications of these findings for posttraumatic stress theory and mental health professionals working with traumatized migrant populations are considered.

**KEYWORDS.** Posttraumatic stress. Mental health. Acculturation. Turkish and Kurdish migrants. Survey descriptive study.

**RESUMEN.** El objetivo de este estudio descriptivo fue ampliar la escasa literatura sobre la asociación entre la aculturación y el trastorno de estrés postraumático entre las minorías étnicas de inmigrantes. Otra contribución es el punto de vista de que los migrantes del mismo país no son un grupo separado y, para que las intervenciones tengan éxito, es necesario entender mejor la situación de cada sub-grupo. Se compararon dos muestras de inmigrantes turcos ( $n = 222$ ) y kurdos ( $n = 130$ ) en los Países Bajos, que difieren en su base étnica/religiosa, razones por migrar y exposición a la violencia política. Se seleccionaron individuos que experimentaron uno o más eventos traumáticos. Los resultados demuestran que las reacciones postraumáticas fueron altamente relacionadas con el estado de salud mental en ambos grupos. Adicionalmente, un aspecto específico de adaptación cultural, afiliación cultural, fue significativamente relacionado con los síntomas postraumáticos, no obstante, en direcciones opuestas para ambos grupos: los encuestados turcos que se atenían a su tradición fueron menos vulnerables a experimentar el estrés postraumático, mientras que los participantes kurdos quienes vivían de acuerdo con sus tradiciones fueron más vulnerables a problemas postraumáticos. Se consideran las implicaciones de estos resultados para la teoría de estrés postraumático y profesionales de salud mental que trabajan con poblaciones de migrantes.

**PALABRAS CLAVE.** Estrés postraumáticos. Salud mental. Aculturación. Migrantes turcos y kurdos. Estudio descriptivo mediante encuesta.

Minority groups and especially those with a refugee background are at risk for developing posttraumatic stress disorder (PTSD), which warrants attention to these groups. The necessity to study psychological consequences of trauma among non-western populations, whether within or outside their home country, is evident to enable a better understanding of the cultural validity of PTSD. The areas of trauma and cultural adaptation are, however, distinct. The current literature on the relationship between posttraumatic stress, cultural adaptation and mental health does not provide a comprehensive explanation of the ways acculturation exerts either positive or adverse effects on the mental health of migrants. To add to this scarce knowledge, we present in this article the results of an empirical study concerning the relationships between posttraumatic stress reactions, cultural adaptation and mental health symptoms among migrants from Turkey in the Netherlands who experienced one or more traumatic events in their lifetime. Studying these phenomena in conjunction is yet sparse – our study is therefore distinctive, moreover since refugees and migrants from the same country of birth are studied together.

### *Trauma and ethnic minorities*

Most traumatic stress studies have been focused on the Caucasian population in the United States, Australia, New Zealand, and Western Europe (Brewin and Holmes, 2003; Ozer, Best, Lipsey, and Weiss, 2003). The prevalence of mental health problems after traumatic experiences for ethnic minority groups has hardly been empirically investigated yet. However, studies have indicated that affected ethnic minorities (such as migrants and refugees) have more health problems in the aftermath of disasters than indigenous residents (Halligan and Yehuda, 2000; Norris, Friedman, and Watson, 2002). Yet, the risk of overgeneralization lies ahead. The rates of PTSD among refugees are around 9% (range 3-18%) in studies of more than 200 participants up to a maximum of 44% in studies with smaller sample size (see Ellis, MacDonald, Lincoln, and Cabral, 2008; Fazel, Wheeler, and Danesh, 2005; Silove, Steel, and Watters, 2000). The difference in prevalence could be explained by the fact that smaller samples are more prone to unreliable estimates. When the number of included participants in a sample is higher, extreme scores will have less change to influence the means which makes the estimates more reliable.

The vulnerability of ethnic minorities for posttraumatic health problems may be partly explained by their relatively low socio-economic situation (Breslau *et al.*, 1998) which in general is a risk factor for health problems (Bhugra, 2004). In addition, several studies have pointed explicitly at the role of minority ethnicity *per se*, in increasing the risk of developing PTSD. For instance, in a study of an entire year's cohort of psychiatric outpatients in Sweden, the prevalence of PTSD was reported higher for Iranians (69%), Arabs (59%) and Turks (53%) than for Swedes (29%), with an odds ratio of 2.44 for belonging to an ethnic minority (Al-Saffar, Borgå, Edman, and Hällström, 2003). In the US National Comorbidity Survey, PTSD was found to be more prevalent in minority groups, especially those with the lowest education and income (Kessler, Sonnega, Bromet, Hughes, and Nelson, 1995). In the Netherlands, the Enschede disaster health study showed that affected Turkish migrants reported more problems than affected indigenous Dutch respondents (compared with non-affected control groups) (Drogendijk *et al.*, 2003). However, again some caution has to be taken since sociodemographic correlates (*i.e.*, sex, age, marital status and the interactions of age with sex and sex with marital status) were found to be significant predictors of lifetime PTSD. Once these significant predictors were controlled there were no significant residual associations of PTSD with race, education, urbanicity or region of the country (Kessler *et al.*, 1995). A similar negative finding regarding ethnic differences in PTSD prevalence (not conditional risk) is reported in Breslau *et al.* (2006).

### *Posttraumatic responses*

Recent epidemiological studies in the USA, Australia and New Zealand (*e.g.*, Al-Saffar *et al.*, 2003; Breslau, 2002; Creamer, Burgess, and McFarlane, 2001) have shown that most community residents have experienced one or more traumatic events in their lifetime. Psychological reactions after a traumatic experience are the posttraumatic responses of intrusions and avoidances, as described by cognitive theories on trauma (Brewin and

Holmes, 2003; Horowitz, 1976). The traumatic experience is persistently re-experienced in recurrent and intrusive distressing recollections of the event, nightmares, pangs of trauma-focused emotions and preoccupation with the event. These intrusions interact with manifestations of avoidance: the implications of the event are warded off which is expressed through emotional numbness and avoidance of thoughts and images of the traumatic event. Next to these posttraumatic responses, victims can suffer from mental health problems such as depression, anxieties, hyper arousal, physical symptoms and fatigue (Başoğlu, Kılıç, Şalcıoğlu, and Livanou, 2004; Norris, *et al.*, 2002). A substantial minority will develop a mental disorder such as PTSD and comorbidity like depression (Breslau *et al.*, 1998; Kleber, Figley, and Gersons, 1995). Surveys indicate that 10 to 30% of populations affected by traumatic experiences will develop PTSD (DeGirolamo and McFarlane, 1996; Kleber and Brom, 1992), although these rates have to be regarded with caution (see McNally, 2007).

#### *Acculturation – the forgotten factor*

Health effects of being allocated into a different culture and having to cope with acculturation demands are substantial for migrants and refugees (*e.g.*, Bhugra, 2004; Kleber *et al.*, 1995; Lindert, Brahler, Wittig, Mielck, and Priebe, 2006). Acculturation refers to the process in which an individual adopts or adheres to attitudes, beliefs, practices, or behaviours congruent with that of the dominant culture. Acculturation has been conceptualized as a confluence of traditional rituals and practices, food and activity preferences, ethnic composition of one's interpersonal relationships, values, perceived self-identity, and immigration status variables (*e.g.*, place of birth, generational status in the host society, length of residency) and demands (skills and stress) (Berry, 2005).

A cumulative effect of both pre-migration trauma exposure and post-migration factors (social difficulties like low proficiency in the language of the country of resettlement, poor social support, poor accommodation, alienation and isolation) is being implicated in overall psychiatric morbidity. Results of various studies indicated that development of posttraumatic responses is related to factors that occur before, during, and after a traumatic event; whereas failure to recover is related primarily to factors that occur during and after the event (*e.g.*, Gerritsen *et al.*, 2006; Schnurr, Lunney, and Sengupta, 2004). For instance, the current social situation (particularly the long period of forced passivity as a consequence of the time it took to receive a staying permit as well as the poor and insecure socio-economic situation one had to live in) contributed to the intensity of ongoing health complaints next to the reported traumatic experiences among Latin-American and Middle-Eastern refugees in the Netherlands (Hondius, Van Willigen, Kleijn, and Van der Ploeg, 2000). The level of acculturation of the affected migrants to the host-society may thus influence mental health after traumatic experiences.

General health studies have indicated that a negative attitude of migrants towards the host culture and poor obtainment of skills required in the host-community, were related with health problems (Bengi-Arslan, Verhulst, and Crijnen, 2002; Kamperman, Komproe, and De Jong, 2003). Empirical results of a study on refugees in Sweden yielded poor acculturation and economic difficulties to be stronger risk factors for

psychological distress than exposure to violence before migration (Sundquist, Bayard-Burfield, Johansson, and Johansson, 2000).

To what extent the acculturation level of migrants with traumatic experiences is associated with health problems, however, is unknown. For example, skills such as fluency in the Dutch language and «knowing your way around in Dutch society» can facilitate solving the practical problems after an accident, an act of violence, or a devastating disaster. Furthermore, present feelings of loss could be influential with regard to psychological problems such as depression. Moreover, specific domains within the acculturation realm may have a stronger impact on mental health than others. In a study among different ethnic minority groups in the Netherlands, a specific domain of acculturation called ‘cultural affiliation’ implying the preservation of the original culture and habits was associated with less mental disorders. At the same time, mental well-being was positively associated with the amount of social relationships with Dutch people (Kamperman *et al.*, 2003; Knipscheer and Kleber, 2006).

#### *Turkish and Kurdish migrants in the Netherlands*

People who have migrated from Turkey form the second largest migrant group in the Netherlands. In the 1960's, the labour migration from Turkey to Europe was the result of the recruit policy of countries in Western Europe. Nowadays, millions of Turks live in countries such as Germany, France, Sweden and the Netherlands. The majority of Turkish migrants came from poor rural areas and were relatively uneducated people who had a strong commitment to Islamic religious practices and the extended family. They had (and still have) to deal with an urban, secular, and individualistic western society (Al-Issa and Tousignant, 1997). The present Turkish community in the Netherlands comprises around 350.000 people (Central Bureau for Statistics, 2008). In health research among migrants, the interethnic differences within migrant groups are often neglected. Yet, empirical studies have shown considerable mental health differences between ethnic subgroups, for instance between Creole and Hindustan Surinamese migrants in the Netherlands (Knipscheer and Kleber, 2001) and between Turkish and Kurdish migrants in Sweden (Bayard-Burfield, Sundquist, and Johansson, 2001). In most European studies the group of Turkish migrants is considered homogenous (Bengi-Arslan *et al.*, 2002; Virta, Sam, and Westin, 2004) despite the fact that the Turkish group consists of many subgroups with different ethnic origins (Gülşen, 2002). Among the Turkish migrants habituating in the Netherlands, there is a considerable group with a Kurdish ethnical background. Through the years political factors became, besides economical factors, a reason for the large volume of Kurdish migrants – especially after the military stroke in 1980. Due to oppression Kurdish political refugees often have a history of violence, imprisonment and torture (Gülşen, 2002). As other people who have been exposed to political violence (*e.g.*, Latino Americans, see Eisenman, Gelberg, Liu, and Shapiro, 2003), Kurds were found to show political violence associated impairments in mental health (*e.g.*, PTSD) and poor health-related quality of life in conjunction with substantial reservations telling a clinician about their traumatic experiences.

### *Research questions and hypotheses*

This descriptive survey was conducted by means of a 'simple retrospective cross-sectional design with one group and multiple measures' (see Montero and León, 2007). The central research questions in this study are twofold: a) to what extent do interethnic group differences (between Turkish and Kurdish respondents) exist in traumatic experiences and their psychological consequences?; b) is there a relationship between posttraumatic problems and acculturation level within a Turkish group and a Kurdish group of migrants?

We hypothesized Kurds to report more traumatic events, higher levels of posttraumatic stress reactions and more health impairment than Turks. In addition, we considered the role of acculturation in the relationship between symptoms of PTSD, mental health and posttraumatic stress reactions. We specifically predicted that differential components of acculturation variables would be powerful, relative to mental health symptoms, in accounting for variance in posttraumatic reactions. Poor obtainment of skills was expected to be associated with more PTSD symptoms and reactions (compare Knipscheer and Kleber, 2006; Miller *et al.*, 2002). In addition, we hypothesized more social interaction would be associated with less posttraumatic problems (see Nicholson, 1997).

## **Method**

### *Participants*

Four hundred and one migrants from Turkey with one or more traumatic experiences participated in the study. As Table 1 shows, several between-group differences for demographic characteristics were found. Kurdish respondents were younger with an age of 36.90 ( $SD = 9$ ) compared to the Turks with an age of 39.50 ( $SD = 11.80$ ),  $t = 2.19$ ,  $p < .05$ . Turkish participants were less employed (55.90%) than Kurds (66.90%),  $\chi^2 = 4.07$ ,  $p < .05$ . There were no between group differences in gender or educational level. Furthermore, there were differences in religion: the Turkish sample was for the most part Sunni Muslim (77%), while almost 60% of the Kurdish sample was Alevitic,  $\chi^2 = 123.82$ ,  $p < .001$ . Migration factors differed between the two groups as well. With an average of 18.60 years ( $SD = 10.30$ ) the Turkish group resided longer in the Netherlands than the Kurdish group ( $M = 14.40$ ;  $SD = 9.20$ ),  $t = 3.79$ ,  $p < .001$ . Moreover, the reason of migration differed between the two samples,  $\chi^2 = 100.33$ ,  $p < .001$ . The most mentioned reason in the Turkish group was «Family reunion» (77.10%) and «Labour» (16.10%), whereas in the Kurdish group «Political reason» (49.60%) and «Family reunion» (40.30%) were most frequently reported migration motives.

**TABLE 1.** Demographic description and characteristics of the participants.

		Turkish ( <i>n</i> = 222)			Kurdish ( <i>n</i> = 130)			<i>df</i>	<i>t</i>	$\chi^2$
		<i>M</i>	<i>SD</i>	%	<i>M</i>	<i>SD</i>	%			
Age		39.50	11.80		36.9	9.0		346	2.19*	
Gender (female)				45.20			45			ns
Employment				55.90			66.90			4.07*
Education	No education			7.70			4.70			ns
	Primary school/ Lower			19.50			20.30			
	Highschool			48			38.30			
	College graduate			24.90			36.70			
Religion	Sunni Muslim			77			22.50	4		123.82***
	Alevitic			14			59.70			
	Different			4.50			10.10			
Years in the Netherlands		18.60	10.30		14.4	9.2		349	3.79***	
Reason of migration	Labour			16.10			5	4		100.33***
	Family reunion			77.10			40.30			
	Political reasons			3.10			49.60			
	Different reason			3.70			5.10			
Experience of trauma	Disaster/ life threatening accident			27.80			13	4		82.91***
	Death close one/ lifethreatening illness			32.50			16.50			
	Problems in relation/ divorce			19.10			6.10			
	Migration			9.80			5.20			
	Political violence (refuge)/torture/ violence			10.80			59.10			
Mental health care				45.30			33.60	1		4.16*

Note. \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$

### Measures

The questionnaire contained several standardized and well-validated questionnaires.

- Socio-demographic information. A demographic questionnaire was used to obtain information about gender, age, nation of birth, ethnicity, length of stay in the Netherlands, reason of migration, living circumstances, highest educational achievement, religious affiliation, urbanization rate of childhood surroundings and source of income.
- Traumatic experiences. In this study, we used a broad definition of trauma. The following major life events were assessed: any (major) physical violence (including rape, sexual violence or childhood abuse); political violence (including torture and imprisonment time); a serious (life threatening) accident or natural disaster; death of a family member or close friend; a life threatening illness; robbery or burglary; serious relation-problems; and migration. These variables are displayed in Table 1.
- Health symptoms. To assess the occurrence and severity of general health symptoms, the General Health Questionnaire (GHQ-28 item version) was used (Goldberg and Hillier, 1979; Dutch validation by Koeter and Ormel, 1991). This questionnaire measures the recent state of subjective well-being in four areas:



a) *Psychosomatic symptoms*, b) *Anxiety and insomnia*, c) *Social dysfunction*, and d) *(severe) Depression*. Each subscale consisted of 7 items. All items were endorsed on a 4-point Likert-type scale: ranging from 0 (*less than usual*) to 3 (*much more than usual*). Koeter and Ormel (1991), in line with Goldberg and Hillier, recommend scoring the two first categories by assigning a value of 0 while assigning a value of 1 to the last two answer categories. The currently recommended cut-off point based on studies of general populations in 15 countries (Goldberg *et al.*, 1997) suggested a score of 5 or lower to be consistent with absence of non-specific psychiatric morbidity. Persons who answered 6-11 questions positively had moderate psychiatric morbidity, and persons answering 12 or more questions positively had substantial psychiatric morbidity. Cross-cultural validity of the GHQ-28 has been established, for instance with Turkish samples in the Netherlands (Bengi-Arslan *et al.*, 2002). The internal consistencies for the GHQ-28 subscales in our sample were excellent, Cronbach's alpha for the total GHQ 28 score is .94.

- Intrusions and avoidances. To assess the characteristic responses of intrusions and avoidance reactions, the Dutch version of the Impact of Event Scale (IES-15; Brom and Kleber, 1985; Horowitz, Wilner, and Alvarez, 1979; Van der Ploeg, Mooren, Kleber, Van der Velden and Brom, 2004) was used. The instrument has two subscales: *Intrusion* and *Avoidance*. Each item is weighted endorsed on a 4-point Likert-type scale, ranging from 1 (*not at all*) to 4 (*often*), reflecting the occurrence of reactions during the past seven days. A cut-off score of 25 was used to distinguish low from high scores. The scale was found to be statistically reliable, with excellent internal consistencies. The psychometric qualities have been affirmed consistently (Joseph, 2000; Van der Ploeg *et al.*, 2004), Cronbach's alpha for the total IES-15 score is .92.
- Cultural adaptation. To assess the level of cultural adaptation the Lowlands Acculturation Scale (LAS; Mooren, Knipscheer, Kamperman, Kleber, and Komproe, 2001) was used. The LAS was developed specifically to measure stressors and affiliations directly related to migration. This 25 items scale includes five different dimensions: *Skills*, the ability to perform the adequate practical skills for the new society; *Traditions*, the preservation of the original culture and habits; *Social integration* in the new society, such as personal contacts with indigenous Dutch people; *Values and norms*, the moral attitudes towards important issues in the new society; and *Loss*, the experiences of loss feelings concerning the county of birth as well as the orientation to people with the same cultural background. All items were rated on a 6-point Likert-type scale ranging from 1 (*totally disagree*) to 6 (*totally agree*). The scale labelled *Skills* (Cronbach's alpha = .79) contained five items that expressed confrontation with integrative tasks such as housing questions, financial needs and language, for example «*I have difficulties understanding and reading the Dutch language*». A higher score on *skills* implies less capacity and ability to perform the adequate skills for the new society. The scale *Traditions* (Cronbach's alpha = .62) deals with the preservation of culture and habits. A higher score on traditions means a more



conservative attitude towards life. The scale *Social integration* (Cronbach's  $\alpha = .60$ ) consisted of four items that referred to social contacts with the Dutch people. A higher score on social integration refers to a more integrated attitude and position in Dutch society. The scale assessing moral attitudes was labelled *Norms and values* (Cronbach's  $\alpha = .48$ ). A higher score on values and norms indicates a higher maintenance of heritage culture and identity. The scale *loss* (Cronbach's  $\alpha = .86$ ) was made up of seven items such as «*My country of origin is always on my mind and in my memories*». A higher score on loss reflects a greater experience of loss feelings concerning the country of birth and a greater orientation towards people with the same cultural background. Internal consistency of the five subscales of the LAS in our sample was satisfactory, except for the subscale *Values and norms* which was therefore excluded from further analyses.

### *Procedure*

The recruitment procedure continued by means of snowball sampling, a sampling method that is being used with increasing frequency to study hard-to-reach populations (De Jong and Van Ommeren, 2002). The snowball method is especially useful and feasible to find marginal research populations that are often difficult to study using conventional sampling techniques, such as traumatised refugees and torture survivors (e.g., Crescenzi *et al.*, 2002). Without this method these groups are easily neglected in research. Recruitment started with those people attending one of the 68 participating community centres. These community organizations are run by and for members of the Turkish and Kurdish communities in various places in the Netherlands. The centres were ethnically strictly separated. In addition, mental health care agencies and psychotherapists were approached.

Only adults (18 years and older) who were born in Turkey or had at least one parent born there and had experienced one or more traumatic experience(s), were invited to participate in the face-to-face interview. If a person expressed an interest in participating in the study, he or she was asked to provide a contact phone number or a direct appointment was made. We aimed to collect data from as many people as possible. Attempts were made to maximize socio-demographic diversity. Approximately 45% of the solicited persons agreed to participate, independent of the recruitment method. It was not possible to compare those who chose to participate in the interview with those who declined. Eleven bilingual researchers (all with a Turkish-Dutch or Kurdish-Dutch background, 5 females) administered the semi-structured interviews. The majority was interviewed in the Turkish language ( $n = 269$ , 67.60%), a third of the interviews was in Dutch.

### *Statistical analyses*

We used  $t$  tests and  $\chi^2$  tests to make between-group comparisons in demographic factors, mental health and subscales of the LAS. In order to analyze differences in variances in acculturation level, we use the Levene's test for equality of variances. To analyze the relation between posttraumatic problems and descriptive variables, general

health, and mental health care we first used univariate regression. Furthermore, sequential multiple regressions were conducted. The relation between acculturation level and posttraumatic problems controlled for general mental health and demographic factors was analyzed by sequential multiple regression analysis for both groups separately. General mental health and mental health care utilization were entered in the first step (Model 1). In the second step we entered demographic factors. At step 3 two subscales of the LAS were entered and the number of years in the Netherlands. The dependent variable was the IES-15 total score.

## Results

### *Traumatic experiences*

Table 1 shows the most severe traumatic experiences of the respondents. The type of trauma differed between the Turks and the Kurds,  $\chi^2 = 82.91$ ,  $p < .001$ . The life threatening incidents mentioned most in the Turkish group were «Death of a close one/ life threatening illness» (32.50%) and «Disaster/ life threatening accident» (27.20%, of which almost half suffered from the devastating earthquakes in Turkey). The most mentioned incident of the Kurdish group was «Political violence and refuge» (59.10%). More than half of this group was, next to the political refuge, arrested, imprisoned and tortured. In the Kurdish group 16.50% mentioned «Death of a close one/ life threatening disease» and 13% experienced a disaster or life threatening accident. A fifth of the Turkish respondents mentioned problems in the relation with their partner as most severe experiences whereas 6.10% of the Kurdish group mentioned this as most severe. Since the kind of traumatic experiences between the groups differed (the Kurdish group suffered from political violence and torture extensively), we did not include traumatic experiences in the regression.

### *Intrusions, avoidances and mental health*

Most respondents reported severe posttraumatic problems like intrusions and avoidances. A level of posttraumatic reactions that was indicative for the diagnosis of PTSD was reported by 40.10% of the Turkish group and 31.10% of the Kurdish group. The levels of general mental health symptoms were equally high for the Turkish ( $M = 6.90$ ;  $SD = 7.40$ ) and Kurdish sample ( $M = 6$ ;  $SD = 7.10$ ).

### *Cultural adaptation*

Except for the acculturation subscale *Loss*, the levels of acculturation did not differ significantly between the two groups. Table 2 shows that the Kurdish group reported a higher level of feelings of loss of the country of origin ( $M = 33.10$ ,  $SD = 6.30$ ) than the Turkish group ( $M = 30.90$ ,  $SD = 6.60$ ),  $t = -2.97$ ,  $p < .01$ . Nonetheless the differences in the years of residence in the Netherlands and the level of skills (such as knowledge of the Dutch language and accessibility to Dutch society) were similar for both Turkish ( $M = 13.70$ ,  $SD = 5.50$ ) and Kurdish ( $M = 14.50$ ,  $SD = 5.70$ ) respondents. Similar levels were also found for the acculturation subscale *Social integration* and *Traditions*.

**TABLE 2.** Posttraumatic stress, psychological health and acculturation.

		<i>Turkish</i> ( <i>n</i> = 222)			<i>Kurdish</i> ( <i>n</i> = 130)			<i>df</i>	<i>t</i>	$\chi^2$
		<i>M</i>	<i>SD</i>	%	<i>M</i>	<i>SD</i>	%			
Acculturation	Skills	13.70	5.50		14.50	5.70		307		
	Traditions	13.70	2.70		14	2.70		305		
	Social Integration	13.20	3.30		13.70	3.50		307		
	Loss	30.90	6.60		33.10	6.30		307	-2.97	**
Posttraumatic problems		35.40	16.20		34.40	17.80				
				74.50			73.30			ns
Psychological problems		31.50	11.50		29.50	11.30				ns
PTSD				40.10			31.10			ns

Note: \**p* < .05; \*\**p* < .01; \*\*\**p* < .001

#### *Predictors of intrusions and avoidances*

Table 3 shows the univariate regression analyses for the predictors of posttraumatic stress. The predictors were several demographic characteristics such as gender, education, age, employment and number of years in the Netherlands. Furthermore, the influence of different levels of acculturation and general mental health on posttraumatic stress was analyzed.

**TABLE 3.** Univariate regression analyses of factors related to posttraumatic stress after traumatic experiences.

	<i>Turkish</i> <i>n</i> = 222		<i>Kurdish</i> <i>n</i> = 130	
	<i>R</i> <sup>2</sup>	$\beta$	<i>R</i> <sup>2</sup>	$\beta$
Demographics				
Gender	.04	.19**	.04	.21*
Education	.03	.16*	.02	-.14
Age	.07	-.27***	.00	-.20
Work	.01	-.9	.03	.17
Years in the Netherlands	.05	-.23**	.03	-.18
Acculturation				
Skills	.00	-.03	.03	.18
Tradition	.04	-.19**	.07	.27**
Social interaction	.01	.08	.01	-.09
Loss	.01	.08	.01	.09
General mental health	.08	.29***	.06	.25**
Health care	.01	.11	.04	.19*

Note: \**p* < .05; \*\**p* < .01; \*\*\**p* < .001

In the Turkish group the demographic factors gender,  $F_{(1, 190)} = 7.32, p < .01$ , and education,  $F_{(1, 190)} = 5.25, p < .05$ , were positive univariate predictors of posttraumatic stress. Furthermore the factors age,  $F_{(1, 190)} = 14.72, p < .001$ , and years in the Netherlands,  $F_{(1, 190)} = 10.59, p < .01$ , were negative related to posttraumatic stress. In the Kurdish group only gender was a (positive) significant factor predicting posttraumatic stress,  $F_{(1, 114)} = 4.95, p < .05$ .

General mental health was in both the Turkish,  $F_{(1, 190)} = 16.84, p < .001$ , and the Kurdish,  $F_{(1, 112)} = 7.41, p < .01$ , sample a predictor for posttraumatic problems. Furthermore, the use of mental health care was positively related with posttraumatic stress in the Kurdish group,  $F_{(1, 115)} = 4.29, p < .05$ .

Striking is the difference between the two ethnic groups regarding the influence of the acculturation subscale *Traditions* on posttraumatic stress. In the Turkish group *Traditions* was a negative predictor for posttraumatic stress,  $F_{(1, 189)} = 7.02, p < .01$ . Respondents living more to Turkish traditions were less vulnerable for posttraumatic stress. In contrast, a positive relation between *Traditions* and posttraumatic stress was found in the Kurdish group,  $F_{(1, 113)} = 8.78, p < .01$ . When Kurdish respondents live according to Kurdish traditions, they reported more posttraumatic problems.

#### *Relationships between acculturation level and health problems*

When controlling for general health and demographic factors, the multiple regressions analyses showed that acculturation significantly predicted posttraumatic stress, within the Turkish and the Kurdish group (see Table 4, model 3). Within the Turkish group, the third model contributed 8% with - next to general mental health and age - the acculturation subscales *Traditions*, *Social interaction* and *Loss*,  $F_{(1, 188)} = 5.56, p < .001$ . *Traditions* was a significant negative predictor of posttraumatic stress in the Turkish group. Preservation of Turkish culture and habits will result in less posttraumatic problems. *Loss* and *Social interaction* were positive predictors for posttraumatic stress. Turkish respondents with feelings of loss of culture and homeland as well as Turkish participants with few social interactions with Dutch natives were vulnerable for developing posttraumatic stress.

In the Kurdish group the third model contributed 12% with - next to general mental health - the acculturation subscale *Traditions* and the number of years of residence in the Netherlands,  $F_{(1, 112)} = 2.81, p < .01$ . The preservation of Kurdish culture and habits had a negative influence on posttraumatic stress. Furthermore, with more years of habituation in the Netherlands Kurdish respondents were less vulnerable for posttraumatic stress.

**TABLE 4.** Multiple regression analysis of acculturation related to posttraumatic stress corrected for demographics, mental health and health care.

	<i>Model 1</i>		<i>Model 2</i>		<i>Model 3</i>	
	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$	$\Delta R^2$	$\beta$
Turkish ( <i>n</i> = 222)						
	.08***		.10***		.08***	
General Mental Health		.28***		.24**		.26***
Mental health care		.40		.04		.05
Demographic variables						
Gender				.16*		.24**
Age				-.20*		-.17
Education				.11		.02
Work				-.04		-.04
Acculturation						
Skills						.00
Tradition						-.26**
Social interaction						.21*
Loss						.27**
Years in the Netherlands						.40
Kurdish ( <i>n</i> = 130)						
	.09**		.03*		.12**	
General Mental Health		.22*		.20*		.22*
Mental health care		.15		.14		.11
Demographic variables						
Gender				.11		.14
Age				-.09		.10
Education				-.08		-.09
Work				.04		.03
Acculturation						
Skills						.03
Tradition						.31**
Social interaction						.14
Loss						-.25
Years in the Netherlands						-.35**

Note: \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$

## Discussion

This study investigated the relationship between traumatic experiences, posttraumatic reactions, mental health symptoms, and acculturation levels in Turkish migrants in the Netherlands. Results confirm the findings of previous studies (*e.g.*, Gerritsen *et al.*, 2004; Silove, Manicavasagar, Coello, and Aroche, 2005; Steel, Silove, Bird, McGorry, and Mohan, 2005) that documented the high prevalence of traumatic events and mental health problems among migrated individuals. Our data highlight the diversity in trauma in migrant and ethnic minority persons lives. This study also shows the ethnic differentiation with the community of migrants from Turkey who settled down in the Netherlands. Two distinct groups could be distinguished: the Turks and the Kurds. The differences between both groups concern cultural and migration factors. Turkish respondents are mainly Sunni Muslim, while more than half of the Kurdish respondents have the Alevitic form of the Islam religion. Furthermore, the Turkish people are mostly immigrated for family reunion or work, while half of the Kurdish respondents had endured a forced migration due to political reasons - compare the Bayard-Burfield *et al.* (2001) study in which 68% of the Kurdish fled from their country for political reasons.

A striking differentiation in the sample concerns the kind of traumatic experiences, whereby the political violence and the subsequent imprisonment and torture experiences among the Kurds stand out. Nevertheless, our hypothesis that Kurds would report higher levels of posttraumatic stress reactions and more health impairment than Turks was not supported. Few interethnic group differences between Turkish and Kurdish respondents in posttraumatic stress and general mental health between the two groups were found. The consequences for mental health of experiencing traumatic events are substantial for both groups. These levels are similar to levels of posttraumatic stress disturbances in Turkish people affected by a disaster in the Netherlands (Drogendijk *et al.*, 2003), but considerably high compared with the PTSD rate among earthquake survivors in Turkey (23% at the epicentre and 14% in Istanbul; Başoğlu *et al.*, 2004).

Consistent with our hypothesis predicting that traumatic events would go along with substantial mental health symptoms, most of our sample reported considerable mental health symptoms. A high percentage of the political migrated respondents reported substantial exposure to political violence and as a consequence high rates of posttraumatic stress, but the percentages of trauma exposed economic migrants were unexpectedly high. These results suggest that service providers and policy makers should not assume that labour related immigrants have not been exposed to political violence or other sources of traumatic events before their migration (see also Rousseau and Drapeau, 2004).

Despite the similarity in level of posttraumatic problems in the two different ethnic groups, there are major differences in psychosocial predictors of the posttraumatic problems. Acculturation demands significantly contributed to the report of posttraumatic problems. However, a global assessment of acculturation level was not a strong predictor – these effects were only found among different domains of acculturation although not the domains that were *a priori* predicted (*i.e.*, difficulties in obtaining practical skills in the new society and social interaction efforts). In our study a strong affiliation with cultural traditions (like passing through the traditions in raising children and celebrating

religious feasts) is associated with posttraumatic problems – the effects differ intriguingly between both groups though. The more the Turkish respondents held to their Turkish traditions, the less vulnerable they were for posttraumatic stress. The opposite was found for the Kurdish participants: the more Kurdish respondents lived by their traditions, the more vulnerable they were for posttraumatic problems.

The difference in migration motive (politics versus labor) may be of importance in the explanation. In a study on Bosnian refugees in the Netherlands (Mooren, 2001), the preserving traditions dimension was also a predictor for posttraumatic stress. When repressed groups such as Kurds and Bosnians - who had to escape their country because of their culture - are confronted with their own culture, this can enhance the memory of their traumatic experiences and therefore having negative consequences for their health. So when members of a political refugee groups (Kurds) are confronted with their own culture they may be more prone to posttraumatic stress – and this contrasts with the more or less voluntary migrants (like the Turks) who find shelter in their cultural background.

This explanation should be modified however, since many of the Turks migrated in order to reunite with family members. Involvement in their culture may have led to not only shelter but a greater family support as well. Furthermore, an other explanation can be that when people want to maintain traditions and can, this contributes to better health outcomes but when people want to maintain traditions (which was the case with the affected Kurdish group) and can't (and are frustrated by not being able to maintain their culture in ways that are important) this has a negative effect on health.

In interpreting the results of the present study, a number of caveats need to be acknowledged. First, the sample was not selected randomly and 45% of the approached persons agreed to participate. The so-called snowball-sampling technique can be used to explore relatively unknown populations, such as refugees and migrants. This method is not strictly random and cannot be compared with representative sampling methods. Nevertheless, the method is recommended in cases where one does not know population characteristics and expects a reluctance to co-operate with researchers (Kaplan, Korf, and Sterk, 1987). Given the frequent reservation of ethnic minorities to take part in scientific research, this sampling technique is advisable (Okazaki and Sue, 1995). Moreover when migrants are traumatized (especially because of political reasons, *e.g.* Kurds), they are often suspicious and mistrustful of someone asking them personal questions. Consequently, the present sample may not be fully representative of the wider group of migrants of Turkey in the community. Those suffering the greatest psychosocial impairment might not have the motivation to join the interview whereas those who are healthy and/or who have sound social supports may not want to participate. It is likely, therefore, but difficult to confirm, that the present sample represents a midrange of psychosocial impairment among traumatized individuals with a Turkish or Kurdish decent. However, the findings of psychosocial problems are similar in other migrant groups. Second, although both groups are similar in terms of age, sex, and current (cultural adaptive and social) stressors, the samples may be dissimilar in terms of social status and history of persecution, as well as health and functioning before the trauma. Finally, there is a limitation of the cross-sectional design of the study. We studied the



association between acculturation and PTSD, rather than acculturation being a «predictor» of PTSD. There is no indication of the timing of PTSD. The level of acculturation may well be determined by the level of PTSD, it had started prior to migration.

The study of mental health problems among migrants from Turkey present numerous methodological challenges, such as the need to differentiate between subgroups of Turks, the need to address differences in acculturation demands and styles, and the need to assess the differential effect of ethnocultural factors on symptom presentation and community functioning. Failure to attend these challenges can result in contradictory findings across studies, both within the general population of Turks and among special subpopulations of Turks, such as Kurds at risk for posttraumatic stress disorder. Still, it is a major important and an increasingly relevant research topic.

The present study provides unique documentation of the sequential stressors experienced by individuals who have migrated from Turkey to the Netherlands. The impact of acculturation (especially cultural affiliation) is substantial – but the influence differs within both ethnic groups. It is precisely this cluster of factors that mental health care providers have to address in service application to traumatized migrants. There is a need for structural attention to the experiences that people have been through and for the coping strategies to adapt to the many transitions in the migration process. Professionals should not focus at traumatic events when treating refugees but also be attentive to post migration factors, nor should they neglect the impact of pre-migration life events when treating economically driven migrants. In addition, Turkish patients could be stimulated in developing a positive cultural identity, like participating in activities within the own cultural group, in order to better cope with their trauma, whereas Kurds could be taught how to cope with their cultural heritage in a more healthy way.

Our findings have implications regarding the policies and psychosocial treatments aimed at traumatized migrants and ethnic minorities. Mental health professionals dealing with traumatized migrants should not limit their evaluation efforts to posttraumatic symptoms. Mental health may deteriorate as a result of a combined impact of traumatic migration experiences and post-migration problems. Clinicians should inquire about a history of political violence experiences in migrant clients whenever the differential diagnosis includes trauma-related illnesses, such as depression and PTSD. Moreover, the division of the Turkish community in different ethnic groups could be of interest for psychologists and other health care workers as well. Overall, our findings emphasize the urgency of preventing traumatic events. Initiatives that decrease trauma exposure may ultimately have a greater impact in terms of reducing psychopathology among migrants than treating maladaptive coping approaches that contribute to symptoms of mental health distress.

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