Chapter

ACCULTURATION AND PSYCHOLOGICAL DISTRESS AMONG NON-WESTERN MUSLIM MIGRANTS: A POPULATION-BASED SURVEY


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**ABSTRACT**

Background: Political and social developments point at increasing marginalization of Muslim migrants, but little is known about its consequences for the mental health of this particular group. Aim: To explore the relationship between acculturation and psychological distress among first-generation Muslim migrants from Turkey and Morocco in the Netherlands.

Methods: A cross-sectional study. Respondents were interviewed in their preferred language. Acculturation was measured with the Lowlands Acculturation Scale (LAS) and psychological distress with the Kessler Psychological Distress Scale (K10). Data were complete for 321 subjects and analyzed with multivariate linear regression.

Results: Less skills for living in Dutch society was associated with distress (p = 0.032). Feelings of loss were related to distress among Moroccans (p = 0.037). There was an interaction between traditionalism and ethnic background (p = 0.037); traditionalism was related to less distress among Moroccans (p = 0.020), but not among Turkish. Finally, there was an interaction by gender among Turks (p = 0.029); conservative norms and values seemed to be related to distress among men (p = 0.062), not women.

Conclusion: Successful contact and participation in Dutch society, and maintenance of heritage culture and identity were moderately associated with less psychological distress. Improving mastery of the dominant language in host societies, and allowing migrants to preserve their traditions, might be effective measures in improving the mental well-being of migrants.
INTRODUCTION

As a religious minority, Muslims constitute a large and increasing part of the migrant population in many Western countries. In the United States, for example, Muslims are among the most rapidly growing minority groups, and the European Muslim population is expected to be doubled by the year 2025 [1,2]. At the same time, current political and social developments, by some labelled as “Islamophobia”, have been argued to contribute to the marginalization of Muslims in Western countries [3]. In terms of mental health, marginalization may be considered as the most risky outcome of the acculturation process [3-6].

Acculturation, or the level of cultural adaptation [7], typically refers to the process of change that takes place when two ethnocultural groups come into continuous contact with each other [8]. According to Berry’s famous model of psychological acculturation, acculturation involves some degree of contact and participation in the larger society and maintenance of heritage culture and identity [4,9]. As such, four main outcomes of the acculturation process are distinguished, namely ‘assimilation’ (rejection of the old culture, adoption of the host culture), ‘separation/traditionalism’ (preservation of the old culture, rejection of the host culture), ‘marginalization’ (rejection of both cultures) and ‘integration’ (preservation of the old culture and adoption of the host culture [4]. Acculturating individuals experience varying levels of acculturative stress [10,11]: adoption of the integration strategy tends to be associated with the least acculturative stress, while marginalization is associated with the highest levels of stress [9]. Similarly, integration has been negatively associated with presence of common mental health problems, while a positive association has been found between marginalization and symptoms of mental illness [11-13].

However, most of what is known about the association between acculturation, acculturative stress, and mental health is based on studies within the largest migrant populations in Northern America, Australia and the U.K (e.g. Hispanics, Asians). To date, Muslim migrants have been largely neglected [14]. One study, among Arab Americans, found that both integration and religiosity of Muslim Arabs were related to less depression [14], thereby providing some support for the validity of Berry’s model with regard to mental health in this specific subgroup. It is unknown whether this finding can somehow be extrapolated to other Muslim migrant populations, considering that these populations are ethnically extremely diverse.
The present study focuses on the relation between acculturation and psychological distress. This is done in a population-based sample of first generation (i.e. foreign born) Muslim migrants from Turkey and Morocco. Migration from Morocco and Turkey to Western Europe started halfway the sixties of the previous century and was motivated by large labour shortages after the Second World War. Countries with large Turkish and/or Moroccan migrant populations, other than the Netherlands, are France, Germany and Belgium, and they are nowadays among the largest immigrant groups in Western Europe.

Based on previous research [9,11,12], it was hypothesized that signs of contact and participation in Dutch society, as well as indications of maintenance of heritage culture and identity, would be associated with better mental health. However, despite Turkish and Moroccan migrants often being considered as culturally homogeneous, variation between ethnic groups was anticipated [15,16]. For example, Turkish and Moroccan migrants have somewhat different (migration) backgrounds [17], and there are indications that both groups also differ regarding their levels of acculturation in Dutch society [18]. Turkish migrants tend to more strongly identify themselves with their own ethnic group than Moroccan migrants do [17,18]. In religious respect, however, Moroccan migrants are supposed to be more conservative and traditional [18].

In addition, variation was expected between gender groups [13,19,20]. Muslim women, for that matter, may face more religious and cultural constraints when compared with men [21], resulting from Muslim families being generally (very) traditional, having strict hierarchies of generations and sexes [22]. This could make contact and participation in Dutch society, for example, more difficult or stressful for women than for men. On the other hand, family life has been found to act as a buffer to mental health problems for women [22,23], and Muslim family ties are usually very strong. Moreover, women play a very important role in preserving cultural and religious traditions [14], which they are highly appreciated for within their own community [22].

**MATERIALS AND METHODS**

**The Amsterdam Health Monitor**

Respondents were recruited through the Amsterdam Health Monitor (AHM) of 2004, which was based on a representative sample of approximately 4000 people from the Amsterdam population register. The sample was stratified for age groups (18-34 years,
Acculturation and distress

35-44 years, 45-54 years, 55-64 years and 65 years and older) and ethnicity (ethnic Dutch, Turkish, Moroccan, other). A number of measures was taken to improve the response, including (a) announcement of the survey by mail (in different languages) and local media (e.g. a Turkish radio station), (b) an additional reminder in the week before the data-collection commenced, (c) translation of instruments into English, Turkish and Standard Arabic, (d) the application of oral interviews as opposed to questionnaires (in Dutch, Turkish, Moroccan-Arabic or Berber), (e) ethnic matching of interviewers, (f) employment of bi-lingual interviewers, (g) multiple attempts to contact the respondent and (h) a financial incentive after participation. Overall, 1306 ethnic Dutch, Turkish and Moroccan respondents were included (response 45%). The response was lower among men than among women (p < 0.001), and in the lowest age-category (18-34 years; p < 0.001). The response was also lower among Moroccans than among ethnic Dutch or Turkish (p < 0.001). Regarding socioeconomic status, we made a rough comparison between respondents from the first wave of the AHM and the Amsterdam general population. After weighting the sample for age, gender and ethnic background, the annual income of respondents was comparable to that of the Amsterdam population. That is, 38% reported a yearly income under €17,550, 48% had an income between €17,550 and €41,600, and 14% had an income of €41,600 or higher. In addition, 5% of the respondents reported to be unemployed, which closely resembles the 7% of the Amsterdam population that was unemployed in 2004 [24].

The general AHM of 2004 was followed-up by a second wave, consisting of structured interviews that were specifically aimed at mental health [25,26]. These interviews were conducted in the language that was preferred by the respondent (i.e. Dutch, Turkish, Moroccan-Arabic or Berber) and could be completed within 1,5 hours. Only those who gave permission (N=1076, or 81%) were invited for this interview. Permission was asked while respondents were kept ignorant about the specific topic of this follow-up study, as to prevent people from dropping out for reasons related to mental health. The interviews for the second wave were conducted between February and June of 2005, to avoid summer holidays, Christmas and Ramadan. Interviewers were trained during a full-time week and subsequently monitored intensively. The study procedures of this second wave were approved by the ethical commission of the Amsterdam Academic Medical Centre.

Eventually, the second wave had a response of 71% (N = 725) of all Turkish, Moroccan and Dutch subjects who gave their consent. There was no selection with respect to age (p=0.856), but response was lower among Turkish and Moroccans than among
ethnic Dutch (p < 0.001), and lower among men than among women (p = 0.027). In
addition, information from the first wave was used to examine possible selection re-
garding health (care) characteristics. There were no significant differences between
(non-)respondents with respect to perceived health status (SF-36 (Ware et al., 1994); p=0.101), psychological distress (K10 (Kessler et al., 2002); p=0.635), general practice
visits in the past two months (p=0.101), outpatient health care utilisation in the past two
months (p=0.480), any health care utilisation for mental health problems in the past
year (p=0.903), and current use of psychotropics (p=0.903). Within gender groups, the
response was significantly lower among Turkish and Moroccan men (p<0.001). Dif-
fences between male (non-)respondents on the other variables were not statistically
significant, nor were there any differences among women.

**Measures**

Acculturation was measured with the Lowlands Acculturation Scale (LAS), which is
a well validated instrument that has been applied in various settings, among a wide
variety of migrant populations in the Netherlands, including Turkish and Moroccan
migrants [7,16,27-31]. The LAS consists of 25 items that are rated on 6-point Likert-
type scales, extremes labelled as ‘totally disagree’ and totally agree. The items are
divided into five subscales: Skills (e.g. ‘I have difficulties understanding the Dutch
language’), Traditions (e.g. ‘I find it important to pass on our traditions to my (fu-
ture) children’), Social Integration (e.g. ‘I have plenty of contact with Dutch people’),
Values and Norms (‘I believe that Dutch law is too lenient on criminals’) and Loss
(‘I belong here less than in Turkey/Morocco’). Scales analysis showed that removal of item 23 (‘I believe Dutch women can make their own decisions in life’; Values
and Norms-subscale) increased internal consistency of that subscale. After removal of
that item, Cronbach’s alpha’s were 0.54 (Social Integration), 0.60 (Values and Norms),
0.62 (Traditions), 0.74 (Skills) and 0.77 (Loss). Although 0.70 is generally considered
the minimal acceptable alpha for research purposes, alpha may be as low as 0.60 in
exploratory research (Nunnaly, 1978). Therefore, only the Social Integration subscale
was excluded from further analyses for reasons of poor internal consistency. Higher
sum scores indicated less contact and participation in the larger society (i.e. on the
Skills-subscale), higher maintenance of heritage culture and identity (i.e. Traditions,
Values and Norms), or lower maintenance of heritage culture and identity (feelings of
Loss), respectively.

Psychological distress was measured with the Kessler psychological distress scale
(K10) [32]. It consists of 10 items (e.g. ‘During the past 30 days, about how often did
you feel tired out for no good reason?’), each item with five response categories: ‘none of the time’ (1), ‘a little of the time’ (2), ‘some of the time’ (3), ‘most of the time’ (4) and ‘all of the time’ (5). The total score, which is the sum of all responses, thus ranges between 10 and 50. Previous research showed that the K10 strongly correlates with the Composite International Diagnostic Interview (CIDI) questionnaire [33], which is nowadays the standard assessment tool for mental disorders during epidemiological studies [34]. The CIDI already had a Turkish and standard Arabic translation, and had been used in international comparative studies before, including Turkey [35,36]. The K10 can therefore be validly and reliably used to assess psychological distress. In the present study, Cronbach’s alpha for the K10 was 0.94, indicating a very high internal consistency in the total sample. More information about the K10 in general can be found on the website of the National Comorbidity Survey (NCS) (http://www.hcp.med.harvard.edu/ncs/index.php).

Ethnic origin was based on country of birth; a subject was considered to be Turkish or Moroccan if he or she was born in Turkey or Morocco (first generation migrant) or if at least one of his/her parents was born in Turkey or Morocco (second generation migrant). Apart from ethnic background, information was available on age, gender, and several indicators of socioeconomic status (SES), namely education (i.e. no or only vocational learning vs. higher), income (i.e. less than or equal to social welfare level vs. more), partnership (i.e. (no) steady relationship), employment status (i.e. (un) employed) and type of health insurance (i.e. private or public). The latter was used because, until the year 2006, people with an income below a certain level used to be publicly insured. Finally, all respondents were asked to state their religious background. For this study, a Muslim was defined as a respondent who reported to belong to Islam.

Analyses

Only first-generation Turkish and Moroccan Muslim migrants were included. Because of sample size limitations the number of covariates had to be limited. Sociodemographic variables were therefore first univariately associated with the acculturation variables and the K10 sum scores, using analysis of variance (ANOVA) and correlations. The analysis was first conducted on the total sample. To examine whether the association between acculturation and distress was different for separate ethnic groups, interaction terms of LAS subscales with ethnicity were added to the model. If interaction terms suggested differential effects of acculturation by ethnic background or gender, stratified analyses were done for subgroups. All the analyses were con-
ducted in SPSS 15.0. Interaction effects and associations were considered statistically significant if \( p<0.05 \).

**RESULTS**

Table 1 shows characteristics of the study sample. There were no significant differences between Moroccans and Turks with respect to age, gender, level of education, income level, partnership or employment status. However, Moroccan respondents were more often had public insurance. In addition, Turkish respondents attained higher scores on the K10 and LAS subscales, with the exception of ‘Skills’, suggesting higher levels of psychological distress among Turkish respondents compared with Moroccan subjects, a higher degree of maintenance of heritage culture and identity, but at the same time more feelings of Loss as well. Only gender and employment status were associated with both psychological distress and at least one LAS subscale \( (p<0.05) \) and therefore taken into account as possible confounders in the regression analysis.

The regression analysis indicated that having less skills for living in Dutch society was associated with more psychological distress \( (p=0.026) \) (table 2). There were no other main effects of acculturation in relation to distress. However, there was significant interaction between ethnicity and the subscale ‘Traditionalism’ \( (p=0.037) \), not shown in table. Therefore, stratified analyses were performed (table 2), showing that stronger cultural traditionalism was related to less distress among Moroccans \( (p=0.020) \). There was no such association among Turks \( (p=0.149) \). In addition, feelings of loss were associated with more distress among Moroccans \( (p=0.037) \).

Examination of interaction effects between acculturation and gender suggested differential effects of ‘Norm and Values’ among Turkish men and women \( (p=0.029) \), not shown in table. There was no interaction between acculturation and gender among Moroccan migrants. Stratified analyses (table 3) suggested that more conservative norms and values were related to less distress among Turkish men \( (p=0.062) \), while no association was found among Turkish women.
Table 1. Characteristics of the study population

<table>
<thead>
<tr>
<th></th>
<th>Total sample (N = 321)</th>
<th>Moroccan migrants (N = 155)</th>
<th>Turkish migrants (N = 166)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (mean, sd.)</td>
<td>49.2 (13.2)</td>
<td>50.6 (13.0)</td>
<td>47.9 (13.4)</td>
<td>0.071</td>
</tr>
<tr>
<td>Gender (female, %)</td>
<td>50.5</td>
<td>45.2</td>
<td>55.4</td>
<td>0.066</td>
</tr>
<tr>
<td>Education (≤ vocational, %)</td>
<td>58.4</td>
<td>57.7</td>
<td>59.1</td>
<td>0.817</td>
</tr>
<tr>
<td>Income (≤ social welfare level)</td>
<td>51.1</td>
<td>56.4</td>
<td>49.6</td>
<td>0.126</td>
</tr>
<tr>
<td>Partnership (no partner, %)</td>
<td>15.0</td>
<td>16.8</td>
<td>13.3</td>
<td>0.377</td>
</tr>
<tr>
<td>Employment (unemployed, %)</td>
<td>25.5</td>
<td>24.5</td>
<td>26.5</td>
<td>0.683</td>
</tr>
<tr>
<td>Type of health insurance (public, %)</td>
<td>88.0</td>
<td>95.4</td>
<td>81.0</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>K10 sum score (mean, sd.)</td>
<td>20.2 (9.7)</td>
<td>19.0 (9.5)</td>
<td>21.3 (9.9)</td>
<td>0.039</td>
</tr>
<tr>
<td>LAS subscales (mean, sd.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skills</td>
<td>17.1 (6.8)</td>
<td>16.4 (7.1)</td>
<td>17.7 (6.4)</td>
<td>0.090</td>
</tr>
<tr>
<td>Traditions</td>
<td>20.3 (3.9)</td>
<td>19.2 (4.4)</td>
<td>21.3 (2.9)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Values and Norms</td>
<td>14.2 (4.5)</td>
<td>13.1 (4.6)</td>
<td>15.1 (4.3)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Loss</td>
<td>31.5 (7.4)</td>
<td>30.3 (7.7)</td>
<td>32.7 (7.0)</td>
<td>0.005</td>
</tr>
</tbody>
</table>

1 Proportions are tested with Chi2-tests, means with one-way ANOVA
Table 2. Association between acculturation and psychological distress (K10) according to ethnic background

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Total sample (N = 321)</th>
<th>Moroccon migrants (N = 155)</th>
<th>Turkish migrants (N = 166)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( \beta )</td>
<td>SE (^1)</td>
<td>p-value</td>
</tr>
<tr>
<td>Gender (female)</td>
<td>3.83</td>
<td>1.12</td>
<td>0.001</td>
</tr>
<tr>
<td>Employment (no)</td>
<td>5.02</td>
<td>1.26</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Skills</td>
<td>0.20</td>
<td>0.09</td>
<td>0.026</td>
</tr>
<tr>
<td>Traditions</td>
<td>-0.19</td>
<td>0.16</td>
<td>0.232</td>
</tr>
<tr>
<td>Values and Norms</td>
<td>0.12</td>
<td>0.12</td>
<td>0.329</td>
</tr>
<tr>
<td>Loss</td>
<td>0.13</td>
<td>0.09</td>
<td>0.165</td>
</tr>
</tbody>
</table>

\(^1\) regression coefficient
\(^2\) standard error
The relationship between acculturation and mental health status is a complex one [10], and has hardly been studied among Muslim migrants. The present study explored how acculturation can be associated with psychological distress. This was done in a community-sample of first-generation (i.e. foreign born) Turkish and Moroccan Muslim migrants in the Netherlands. A lack of skills for living in the Dutch society, largely related to poor mastery of the Dutch language, was clearly associated with more psychological distress among Turkish and Moroccan subjects. Other aspects of acculturation showed a more heterogeneous relationship with psychological distress. Stronger cultural traditionalism was related to less distress among Moroccans, and there was a trend for less distress among Turkish men with more conservative norms and values.

The finding that a lack of skills for living in the host culture was most clearly associated with psychological distress agrees with findings from other studies [7,12,16,31]. In a study among Surinamese, Turkish, and Moroccan migrants in the Netherlands, for example, Kamperman et al. [16] found that more skills for living in Dutch society were associated with better mental wellbeing, less psychiatric morbidity and higher
mental health care utilisation. Exactly how these skills relate to mental health symptoms remains to be studied further. However, it is quite conceivable that the experience of insufficient skills for living in the Dutch society may have enlarged Turkish and Moroccan migrants’ sense of disadvantage, or outsider status, especially when both groups seem to have a preference for integration in Dutch society [37]. From that point of view, the main finding of the present study may be seen in the context of the social defeat experience, which can be defined as the chronic stressful experience of outsider status [38]. Originating from animal studies, the model of social defeat has been put forward as a possible explanation of the occurrence of depression in general [39], and it has been linked to the higher prevalence of schizophrenia among some migrant groups [38].

For example, perceived disadvantaged in society, in terms of lack of support at school or home, has been linked with higher rates of psychosis among African-Caribbean and Black African people in the UK, compared with the White British population [40]. However, more research is needed to judge the value of this hypothesis in the context of psychological distress among Muslim migrants in the Netherlands.

In line with expectations, the results showed some variation between ethnic and gender groups regarding the relation between acculturation and psychological distress. First, the relation between traditionalism and psychological distress depended on ethnic background, as successful preservation of the original culture was associated with less distress, only among Moroccans. Second, there was a trend for less distress in case of more conservative norms and values among Turkish men. Considering the explorative nature of this study, and the absence of multiple straightforward associations between acculturation and distress, the influence of acculturation should probably not be overestimated. Nevertheless, the observations among Moroccan migrants and Turkish migrant men are reasonably in line with the presumption that preservation of the old culture can be a healthy part of acculturation [4]. Similarly, for example, Bhugra et al. [41] found that interracial relationships and lower levels of traditional views were associated with attempted suicide among Asians in the United Kingdom. Yet, there was no finding that pointed in this specific direction among Turkish women. Also, [16] found that higher levels of cultural traditionalism were negatively associated with mental well-being and mental health care utilisation. Further study is needed to explain these discrepancies.
Our findings, although explorative by nature, may have implications for practice. For example, items in the Skills-subscale mainly refer to problems with proficiency of the Dutch language (e.g. problems with being understood when speaking Dutch), and starting points for interventions may be sought in this area. Especially among elderly first-generation migrants, however, focusing on language education alone is not likely to be the most effective intervention. For example, a large part of this group is known to be analphabetic and therefore lacks the skills to adopt a foreign language. In that respect, our results could be taken as supportive of (increasing) efforts to assist migrant patients in (mental) health care in their own languages. Peer-education by migrants, for example, has been shown to be a useful and promising tool in various health care settings [42,43]. In addition, we found evidence to suggest that, in some cases, allowing migrants to preserve some of their traditions may be an effective way to improve their mental wellbeing. It might be unnecessary to explicitly define recommendations for policy in this area, because there is already room for such activities in the Netherlands. However, it should be noted that the political and social climate in present-day Dutch society, which has long embraced the ideal of multiculturalism, does seem to have become more hostile towards immigrants and Islam in recent years. In that context, we are inclined to underline the importance of initiating/sustaining efforts to support ethnic minority groups in maintaining their cultural roots.

There are some limitations to this study that need to be considered. A first restriction is the cross-sectional design of the study. As a result, no conclusions are allowed on the directionality of our findings. For example, it is conceivable that the experience of psychological distress is able to limit one’s ability to participate in a new culture. Moreover, as psychological distress can be characterised by motivational problems and negative thinking, more distress may result in an evaluation of acculturation skills that is disproportionately negative. An example of this may be the findings concerning the Loss-subscale among Moroccans, as feelings of loss can also be an expression of depression. A second limitation may be the definition of ethnic background, which was based on country of birth of the respondent and his/her parents. Country of birth can be regarded as a proxy measure of similarities in language, religion, history, genetic predisposition, and family origins [44,45]. It is however a very crude measure, and although this definition of ethnicity is widely adopted in the Netherlands, other definitions are possible as well. In the UK, for example, it is very common to define ethnicity by a mix of cultural factors, including language, diet, religion, and ancestry. In the US, it is common to use ‘ethnicity’ as a synonym for ‘race’ [44]. Thirdly, we acknowledge the fact that other (unknown) confounding variables may play a role in the
association between acculturation and psychological distress. Nevertheless, we would like to stress that we considered several variables to filter out the influence of socio-economic status (SES) as much as possible (e.g. employment status, educational level, income, partnership and type of health insurance). Moreover, the influence of socio-economic status should not be overestimated, because we did not make any comparisons between migrants and ethnic Dutch, and we studied only first-generation elderly migrants from Turkey and Morocco. The results thus refer to a relatively homogeneous population in terms of social and economic position [46]. This is supported by evidence from our own study. For example, the majority of respondents had educational levels lower than vocational training, and more than half had incomes below social welfare levels. Fourthly, the definition of a Muslim was based on self-report, and it did not take into account variation regarding, for example, the degree of religiosity. Our sample was too small to take such variation into account. Finally, the generalisability of our results may have been compromised by the high non-response, although an extensive non-response analysis in the second wave showed no clear signs of selection according to mental health in comparison to the first wave.

**CONCLUSION**

A lack of contact and participation in the larger society, as well as a lack of maintenance of heritage culture and identity may result in marginalization of migrant groups, which has been associated with unfavourable health effects. The present study suggests that especially a lack of skills for living in the Dutch society, largely related to mastery of the Dutch language, is associated with psychological distress among Turkish and Moroccan subjects. Starting points for interventions may be sought in this area. Other aspects of acculturation showed a more complex relationship with distress, but to some extent suggested a healthy effect of preservation of the culture of the country of origin for some subgroups. Further study is needed to provide insight in the underlying factors of the opposing associations among separate ethnic groups and men and women. Considering the heterogeneity of the results, we consider it useful for future studies not only to differentiate between ethnic and gender groups, but to employ a broad definition of acculturation as well.
REFERENCES


