Post migration living problems and common psychiatric disorders in Iraqi asylum seekers in the Netherlands

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Abstract

Background
In a previous community-based, national study among Iraqi asylum seekers, a long asylum procedure was found to have a higher risk for common psychiatric disorders than adverse life events in Iraq.

Objective
In the present article the post-migration period is considered in more detail and evaluated in relationship with psychiatric disorders.

Methods
Respondents were interviewed with fully structured, culturally validated, translated questionnaires. With the use of a Post Migration Living Problems (PMLP) questionnaire, worries about all kinds of problems were gathered. Psychiatric (DSM IV) disorders were measured with the WHO Composite International Diagnostic Interview 2.1. Factor analysis was done on the PMLP and in univariate and multivariate analyses associations with psychopathology were calculated.

Results
Five clusters of PMLP could be identified: family issues, discrimination, asylum procedure, socio-economic living conditions and socio-religious aspects, language problems and work-related issues were identified as separate items. There was a significant relationship between all clustered PMLP and psychopathology, except for socio-religious aspects. Multivariate logistic regression showed that lack of work, family issues and asylum procedure stress had the highest odds ratios for psychopathology.

Conclusion
The findings appeal to governments to shorten the asylum procedures, to allow asylum seekers to work and give preference to family reunion. Mental health workers should realize the impact of PMLP and consider to focus their treatment on (coping with) these problems instead of trauma’s from the past.
Introduction

In a previous article (Laban et al., 2004) we described a community-based study among Iraqi asylum seekers in the Netherlands. The study showed that the length of the asylum procedure is an important risk factor for psychiatric disorders. Asylum seekers who stayed more than two years in the Netherlands had significantly higher overall prevalence rates (66.2%) than those who arrived recently (e.g., within six months) (42.0%). After adjusting for differences in socio-demographics between groups, it appeared that a longer stay in the Netherlands was associated with ‘one or more’ psychiatric disorders (OR 2.16; 95%CI 1.15-4.08), anxiety (OR 2.23; 95%CI 1.09-4.56), depressive (OR 1.84; 95%CI 1.02-3.35) and somatoform disorders (OR 3.15; 95%CI 1.16-8.57). Moreover, a longer stay in the Netherlands appeared to be a more important predictor of psychopathology than the risks related to the adverse life-events in the country of origin. Post-traumatic stress disorder was highly prevalent in both groups (31.5% versus 41.7%) but not significantly different. The conclusion of the article was that the duration of the asylum seekers procedure is an important risk factor for all psychiatric disorders, except for PTSD. In the present article we consider the post-migration period in more detail and show the results of analyses of post-migration living problems in relationship with common psychiatric disorders.

Methods

A comprehensive description of the study design, sampling procedure, response, diagnostic instruments, translation, procedure and prevalence rates is provided in a previous article (Laban et al., 2004). Below we give a summary of the methods and report about the items that are specifically related to the present article.

Participants

Two groups of adult Iraqi asylum seekers were selected based on their length of stay in the Netherlands. Personal data of these groups were obtained from the Agency for the Reception of Asylum Seekers (COA). This agency is commissioned by the Dutch government to provide accommodation for asylum seekers. Also (the minority of) asylum seekers who do not actually need housing, because e.g., they can live with family, are kept in the registers of COA and so were included in the lists. However the lists were not up to date (moves, removals, wrong addresses, registration problems, etc), thus a considerable number of potential participants could not be contacted. We defined the response rate as the ratio of number of study participants/number of adequate addresses.
Group 1 was selected on the criterion that persons stayed less than six months in the Netherlands. The group was sampled from the monthly lists of newly arrived Iraqi asylum seekers in the Netherlands who passed the first screening after entering the country between September 2000 and November 2001. From the total groups of 582 persons (317 males (54.4%) and 265 females (45.6%)), we selected 362 addresses, with the use of a random numbers table. Thirty nine persons were excluded: being a relative in the first line (17), more than six months in the country (19), language problems (3). From 51 persons we received information that they had left with unknown destination. Ninety seven persons could not be contacted. Finally 175 individuals could be contacted and were eligible for the interview. Thirty-two of them (partly) refused. Therefore, from group 1, data could be used for full analysis from 143 interviews (response rate: 82%).

Group 2 was selected on the criterion that they were living in the Netherlands for at least two years. On the chosen date of May 31st, 1999, the COA defined 2,352 Iraqi asylum seekers that fulfilled this criterion, 1,844 males (78%) and 508 females (22%). We used SPSS to generate two random samples of 250 cases, which gave us, after subtracting the doubles, 474 addresses. Eighteen persons were excluded: relatives in the first line (5), having a residents permit (6), language problems (4), too sick to be interviewed (3). From 41 persons we received information that they had left with unknown destination. Two hundred and thirty eight persons could not be contacted. Finally 190 individuals could be contacted and were eligible for an interview. Thirty-nine of them only allowed a short interview. Therefore, from group 2, data could be used for full analysis from 151 interviews (response rate: 79%).

So, all together, 294 Iraqi asylum seekers participated in the interviews.

**Instruments**

The questionnaire used in this study is an adapted version of instruments previously used in Algeria, Cambodia, Ethiopia and Gaza (de Jong et al., 2001, 2003). The demographic part contained questions about age, sex, ethnicity, religion, literacy, language skills, education, social status in Iraq and length of stay in the Netherlands. Because of their expected associations with morbidity issues concerning marital status, children and family members in the Netherlands and number of places lived in the Netherlands, were asked for in detail. Post migration stress factors were gathered with a Post Migration Living Problems (PMLP) checklist which was adapted from Silove et al. (1997). The list contains 24 items (e.g., fear to be sent away, uncertainty of the duration or the outcome of the asylum procedure, lack of work, lack of money, lack of proper housing, missing the family, worrying about the family in their country of origin, worries about the children, discrimination). The participants were asked...
whether or not the problem was applicable to them and if so, how much they worried about it.

Psychiatric disorders were measured with the World Health Organisation Composite International Diagnostic Interview (CIDI), version 2.1 (1997), sections: C (somatoform disorders), D (anxiety disorders), E (depressive disorders), J (alcohol dependency and misuse) and K (obsessive compulsive disorder and post-traumatic stress disorder). The Iraqi-Arabic questionnaire was based on a Palestinian-Arabic version which was modified by a focus group of eight men and women from different ethnic and professional backgrounds. All interviews were taken by specially trained interviewers who were fluent in Dutch and Arabic.

Statistics
The statistical differences on categorical data between the two groups with respect to socio-demographic characteristics were calculated with the $\chi^2$-test. Items from the Post Migration Living Problems questionnaire had, two categories of answers: a yes/no if the item was felt as a problem and a 5 points response format indicating the severity of the problem: 1 ‘not’ – 5 ‘very much’. For further analysis the two categories were brought together by recoding the answers in ‘1’ for not relevant or no worries and 2 to 5 for the degree of severity. To reduce the number of variables a principal component analysis was conducted with Varimax rotation and Kaiser normalization of the estimates. The variables were mainly clustered based on the factor loading. Some were assigned to a cluster for conceptual reasons. Reliability analyses of the clusters were conducted to determine the internal consistency of the new subscales. Subsequently weighted sumscores were calculated for each cluster by multiplying the given answer on an item in a cluster by the weight factor resulting from the factor analysis and summing the weighted scores per cluster.

The differences between the two groups on the scores of the new subscales were tested with the Mann-Whitney U test. Furthermore multivariate logistic regression analysis was used to investigate the relative contribution of all assessed post-migration risk factors to the variance of the different measures of mental health. Adjusted odds ratio’s (ORs), 95% confidence intervals (CI) and P values were calculated. For all tests used in this study differences were considered significant at $p<0.05$. All analyses were performed with SPSS version 11 (Norusis, 1999).
Results

Socio-demographics

The two study groups differed on several socio-demographic characteristics (Table 1). Group 1 contained more females and subjects younger than 24 years of age. Group 2 had less family members in the Netherlands than group 1 and more respondents in this group were involuntary living separated from children under 18. Group 2 had a higher residential mobility. On the characteristics ‘literacy’, ‘education’ and ‘social status in Iraq’, the two groups did not differ: around 85% was literate; 32% finished college or university, 31% had high school or middle school and 7% had no school or only Koran school; around 15% rated their social status in Iraq as low, 65% as average and 18% as high. (see also Laban et al., 2004).

Table 1. Socio-demographic characteristics of at random samples of Iraqi asylum seekers arrived < six months (group 1) versus > two years (group 2) in the Netherlands, 2000-2001.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Group 1 (n=143)</th>
<th>Group 2 (n=151)</th>
<th>Total (n=294)</th>
<th>P value and χ² value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>49.7</td>
<td>78.8</td>
<td>64.6</td>
<td>p&lt;0.0005, χ²(1)=27.31</td>
</tr>
<tr>
<td>Female</td>
<td>50.3</td>
<td>21.2</td>
<td>35.4</td>
<td></td>
</tr>
<tr>
<td>Age (%)</td>
<td></td>
<td></td>
<td></td>
<td>p=0.003, χ²(4)=16.35</td>
</tr>
<tr>
<td>18-24 years</td>
<td>21.7</td>
<td>9.3</td>
<td>15.3</td>
<td></td>
</tr>
<tr>
<td>25-34 years</td>
<td>42.0</td>
<td>49.0</td>
<td>45.6</td>
<td></td>
</tr>
<tr>
<td>35-44 years</td>
<td>14.7</td>
<td>25.8</td>
<td>20.4</td>
<td></td>
</tr>
<tr>
<td>45-64 years</td>
<td>14.0</td>
<td>13.2</td>
<td>13.6</td>
<td></td>
</tr>
<tr>
<td>&gt; 64 years</td>
<td>7.7</td>
<td>2.6</td>
<td>5.1</td>
<td></td>
</tr>
<tr>
<td>Marital status (%)</td>
<td></td>
<td></td>
<td></td>
<td>n.s.</td>
</tr>
<tr>
<td>Married, not living separated</td>
<td>32.2</td>
<td>29.8</td>
<td>31.0</td>
<td></td>
</tr>
<tr>
<td>Married, living involuntary separated</td>
<td>28.7</td>
<td>40.4</td>
<td>34.7</td>
<td></td>
</tr>
<tr>
<td>Widow/widower</td>
<td>7.7</td>
<td>5.3</td>
<td>6.5</td>
<td></td>
</tr>
<tr>
<td>Divorced</td>
<td>1.4</td>
<td>3.3</td>
<td>2.4</td>
<td></td>
</tr>
<tr>
<td>Never been married</td>
<td>30.1</td>
<td>21.2</td>
<td>25.5</td>
<td></td>
</tr>
<tr>
<td>Children (%)</td>
<td></td>
<td></td>
<td></td>
<td>p=0.038, χ²(3)=8.398</td>
</tr>
<tr>
<td>No children</td>
<td>47.9</td>
<td>39.5</td>
<td>43.6</td>
<td></td>
</tr>
<tr>
<td>Having children, living not separated</td>
<td>27.5</td>
<td>27.9</td>
<td>27.7</td>
<td></td>
</tr>
<tr>
<td>Having children, living separated from children &gt; 18 years</td>
<td>7.7</td>
<td>3.4</td>
<td>5.5</td>
<td></td>
</tr>
<tr>
<td>Having children, living separated from children &lt; 18 years</td>
<td>16.9</td>
<td>29.3</td>
<td>23.2</td>
<td></td>
</tr>
<tr>
<td>Family members in the Netherlands (%)</td>
<td></td>
<td></td>
<td></td>
<td>p=0.001, χ²(2)=14.813</td>
</tr>
<tr>
<td>No family members</td>
<td>40.4</td>
<td>59.9</td>
<td>50.3</td>
<td></td>
</tr>
<tr>
<td>Having &lt; 10 family members</td>
<td>48.2</td>
<td>26.5</td>
<td>37.2</td>
<td></td>
</tr>
<tr>
<td>Having ≥ 10 family members</td>
<td>11.3</td>
<td>13.6</td>
<td>12.5</td>
<td></td>
</tr>
<tr>
<td>Number of places lived in the Netherlands (mean, SD)</td>
<td>2.87(1.33)</td>
<td>3.83 (1.42)</td>
<td>3.32 (1.40)</td>
<td>p&lt;0.0005, T(292)=-5.961</td>
</tr>
<tr>
<td>Stay in months (mean, SD)</td>
<td>2.51(1.16)</td>
<td>36.77(6.3)</td>
<td>20.12 (17.76)</td>
<td>p&lt;0.0005, T(292)=63.66</td>
</tr>
</tbody>
</table>

n.s. = not significant: p≥0.05.
Table 2. Factor analysis on post-migration living problems (PMLP) and reliability coefficients of clusters of PMLP in Iraqi asylum seekers in the Netherlands (n=294), 2000-2001

<table>
<thead>
<tr>
<th>Components</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Alpha†</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clusters of PMLP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cluster 1: Items related to family issues</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.8263</td>
</tr>
<tr>
<td>Missing the family</td>
<td>.758'</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Worries about family in Iraq</td>
<td>.777'</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unable to go home in case of emergency</td>
<td>.711'</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loneliness</td>
<td>.675'</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cluster 2: Items related to discrimination</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.8798</td>
</tr>
<tr>
<td>Discrimination - in general</td>
<td>.838'</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discrimination - in words</td>
<td>.857'</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discrimination - in deeds</td>
<td>.872'</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cluster 3: Items directly related to the asylum procedure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.7615</td>
</tr>
<tr>
<td>Uncertainty about residence permit</td>
<td>.396</td>
<td>.711'</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fear to be sent away</td>
<td>.403</td>
<td>.691'</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uncertainty about the future</td>
<td>.739</td>
<td>.232</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cluster 4: Items related to socio-economic living conditions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.7113</td>
</tr>
<tr>
<td>Financial problems – self</td>
<td>.291</td>
<td>.715'</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial obligations towards family</td>
<td>.310</td>
<td>.725'</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housing problems</td>
<td>.670'</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of safe environment children</td>
<td></td>
<td>.502'</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of privacy</td>
<td>.370</td>
<td>.508'</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cluster 5: Items related to socio-religious aspects</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.6909</td>
</tr>
<tr>
<td>Lack of social contacts</td>
<td>.402</td>
<td>.491'</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of contacts with people of same religion</td>
<td>.203</td>
<td>.824'</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of religious meetings</td>
<td></td>
<td>.775'</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Separate items</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language problems</td>
<td></td>
<td>.415</td>
<td>.531</td>
<td>.227</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No permission to work</td>
<td>.623</td>
<td>.240</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work below level</td>
<td>.324</td>
<td>.289</td>
<td></td>
<td>- .410</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* loading of variable in respective cluster.
† standardized Cronbach Alpha
factor loading < 0.200 are not shown

Post migration living problems
Examination of the scores of worries about the post-migration living problems showed great differences between group 1 and 2. Especially the scores of uncertainty about the future, no permission to work, loneliness and missing the family were much higher in group 2 (not shown in table). Two items: delay of marriage and missing political friends scored very low in both groups and were excluded form further analysis. The results of the factor analysis on the remaining 18 items is presented in Table 2. Five clusters were discriminated and labeled as: family issues, discrimination, asylum procedure, socio-economic living conditions and socio-religious aspects. The reliability of the clusters appeared to be good, with Cronbach alpha’s values between 0.6909 and 0.8798 (Table 2). Three items loaded on different factors or where
conceptually not related to the other items in the cluster (language problems, lack of work, work below level) and they were analyzed as separate items. Table 3 shows that group 2 scored significantly higher for all clusters, except for socio-religious aspects. The mean scores of the work-related issues did, the mean scores of language problems did not differ significantly between group 1 and 2.

### Table 3. Group differences in mean rank and percentage of post-migration living problems (PMLP) in Iraqi asylum seekers arrived < six months (group 1) versus > two years (group 2) in the Netherlands, 2000-2001.

<table>
<thead>
<tr>
<th>Clusters of PMLP</th>
<th>Group 1 n=143</th>
<th>Group 2 n=151</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cluster 1: Family issues</td>
<td>120.67</td>
<td>172.91</td>
</tr>
<tr>
<td>Cluster 2: Discrimination</td>
<td>131.14</td>
<td>162.99</td>
</tr>
<tr>
<td>Cluster 3: Asylumprocedure</td>
<td>129.90</td>
<td>164.17</td>
</tr>
<tr>
<td>Cluster 4: Socio-economic living conditions</td>
<td>126.39</td>
<td>167.49</td>
</tr>
<tr>
<td>Cluster 5: Socio-religious living conditions</td>
<td>143.57</td>
<td>151.23</td>
</tr>
<tr>
<td>Separate items</td>
<td></td>
<td>n.s.</td>
</tr>
<tr>
<td>Language problems</td>
<td>55.9</td>
<td>51.7</td>
</tr>
<tr>
<td>No permission to work</td>
<td>31.7</td>
<td>74.2</td>
</tr>
<tr>
<td>Work below level</td>
<td>22.7</td>
<td>44.9</td>
</tr>
</tbody>
</table>

n.s. = not significant: p\(\geq 0.05\).

Relationship between post-migration living problems and psychopathology

Mann-Whitney tests were used to test the differences on the scores of the clusters of post-migration living problems of participants with and without different types of psychopathology (Table 4). All these differences were significant (p<0.05) except for participants with and without anxiety disorder on cluster 4 (socio-economic living conditions) and participants with and without somatoform disorder on cluster 5 (socio-religious aspects). Significant differences on these tests indicate associations between the amount of worries and the prevalence of psychiatric disorders.

Table 4 also shows the relationship between the non-clustered items (worries about no permission to work and work below level) and psychopathology. Most of the relationships appear to be significant. Analyses (not shown in a table) of the relationships between psychopathology and the socio-demographic characteristics marital status, children, family members in the Netherlands and number of places lived in the Netherlands reveal the following: living separated from children below 18 was related with ‘one or more’ psychiatric disorder (OR 2.09; 95%CI 1.06-4.10) and living separated from children above 18 years was related with somatoform disorder (OR 2.63; 95%CI 1.17-21.29).
Table 4. Relationship between (clusters of) post-migration problems and life-time prevalence psychiatric disorders in Iraqi asylum seekers in the Netherlands (n=294).

<table>
<thead>
<tr>
<th>Psychiatric disorder</th>
<th>Anxiety disorder</th>
<th>Depressive disorder</th>
<th>Somatoform disorder</th>
<th>One or more psychiatric disorder</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>no</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td>n=228</td>
<td>n=66</td>
<td>n=192</td>
<td>n=102</td>
<td>n=267</td>
</tr>
<tr>
<td>n=134</td>
<td>n=160</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Postmigration living problems</td>
<td>mr'</td>
<td>mr'</td>
<td>mr'</td>
<td>mr'</td>
</tr>
<tr>
<td>Cluster 1: Family issues</td>
<td>138.60</td>
<td>178.24</td>
<td>p=0.001</td>
<td>129.26</td>
</tr>
<tr>
<td>Cluster 2: Discrimination</td>
<td>141.27</td>
<td>169.02</td>
<td>p=0.001</td>
<td>136.86</td>
</tr>
<tr>
<td>Cluster 3: Asylum procedure</td>
<td>137.84</td>
<td>180.87</td>
<td>p&lt;0.0005</td>
<td>132.95</td>
</tr>
<tr>
<td>Cluster 4: Socio-economic living conditions</td>
<td>142.92</td>
<td>163.31</td>
<td>n.s</td>
<td>135.30</td>
</tr>
<tr>
<td>Cluster 5: Socio-religious aspects</td>
<td>141.34</td>
<td>168.77</td>
<td>p=0.013</td>
<td>136.40</td>
</tr>
</tbody>
</table>

Separate items
<table>
<thead>
<tr>
<th>No permission to work</th>
<th>%</th>
<th>%</th>
<th>%</th>
<th>%</th>
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<td></td>
<td>13.1</td>
<td>30.6</td>
<td>27.0</td>
<td>50.0</td>
<td>6.6</td>
<td>11.5</td>
<td>n.s</td>
<td>41.6</td>
</tr>
<tr>
<td>Work below level</td>
<td>17.3</td>
<td>32.7</td>
<td>26.3</td>
<td>42.0</td>
<td>6.6</td>
<td>14.3</td>
<td>p=0.032</td>
<td>45.4</td>
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mr': mean rank (Mann Whitney test)  
n.s. = not significant: p≥0.05.
Table 5 shows adjusted Odds Ratio’s of all significant post-migration risk factors for psychiatric disorders in the total sample obtained with multivariate logistic analyses. The odds ratio’s are adjusted for mutual effects of all other post-migration risk factors on the outcome variables and for gender and age. The work related issues and the clusters of family issues and asylum-procedure-related issues had the highest ORs for ‘one or more’ psychiatric disorder. When PTSD was excluded from this category the results were similar. Group membership (i.e. a stay longer than two years in the Netherlands) and female sex were related with anxiety disorders. There was no relationship between any of the post-migration risk factors and somatoform disorder (OR 1.18; 95% CI 1.00-1.39).

**Discussion**

The main findings of this study are that worries about the asylum procedure, lack of work and family related issues are the most important risk factors for psychopathology among Iraqi asylum seekers. The results, partly, explain the earlier finding (Laban et al., 2004) that asylum seekers who stayed in the Netherlands for more than two years had a significant higher prevalence of psychopathology, compared to those who just arrived in the country.

**The magnitude of post-migration stress in asylum seekers**

The findings show that asylum seekers experience a wide range of post-migration living problems (PMLP). These problems were more frequently mentioned by the asylum seekers who are more than two years in the Netherlands (group 2). They scored significantly higher on all the clusters PMLP: family issues, issues directly
related to the asylum procedure, socio-economic living conditions and discrimination. The cluster ‘socio-religious aspects’ did not differ significant between the two groups. Further analyses show that this was mainly due to the question related to religion. Lack of social contacts differed between the groups: 36.4% in group 1 and by 47.7% in group 2 (p=0.050). Worries about the two religion related items did not differ and were mentioned by approximately 25% in both groups. Worries about ‘lack of work’ and ‘work below level’ were also significantly more frequently present in group 2.

In general these PMLP agree with the findings of Silove et al. (1997), found in a convenient sample of 40 asylum seekers in Australia. In our questionnaire there was a possibility to add other problems. Only five respondents made use of this possibility: fear for others, violence by fellow asylum seekers, lack of study opportunities, worries about the future of the children. We therefore can conclude that the items mentioned in the used PMLP list largely covers the experienced problems.

The living problems of asylum seekers and the accompanied perceived stress have not received much attention in research so far. In the Netherlands a few qualitative studies have been done. De Jonghe et al. (2004) interviewed 75 asylum seekers, from mixed origin, with the help of focus-group discussions, observations and individual interviews. In that study awaiting a status, lack of privacy, being separated from family and friends, lack of useful daily occupation and shared sanitary blocks were often mentioned. According to the respondents all these factors contributed to ill-health. Van Dijk et al. (2003) did a participatory study in which they interviewed 22 asylum seekers. Puzzling procedures, fear of future, empty existence, loss of supportive networks, discrimination and ‘turned into an object’, were recurrent topics in the interviews. From his own experience the Iraqi asylumseeker Saad Jasim writes in ‘1001 nights waiting’ (2002): “Nights arrive without any news. Afternoons empty of everything except fright, disappointment and a wish to die”. We think these qualitative findings and our quantitative data are complementary to each other and show the same picture: the magnitude of stress factors is a heavy burden on the asylum seekers, especially in the ‘long waiting group’. The strength of our study, however, is the at random design, the representative samples, the large number of participants and the use of an acknowledged instrument for DSM disorders.

**Post migration living problems and psychiatric disorders**

All clustered PMLP appear to have a significant relationship with psychopathology. In the earlier mentioned study of Silove et al. (1997) the anxiety scores on the Hopkins Symptom Checklist-25 were associated with loneliness and boredom, poverty, conflict with immigration officials and female sex. Depressive scores were only related to
loneliness and boredom. Time since application for refugees status did not correlate significantly with anxiety or depression This is contrary to our findings: we found an OR of 2.24 (95%CI 1.10-4.56) for ‘group 2 membership’ and anxiety disorders (Table 5).

In the multivariate logistic regression analyses, worries related to the asylum procedure, worries about absence of work and family related issues appeared to have the strongest relationships with psychiatric disorders. Almost 75% of the asylum seekers that stayed more than two years in the Netherlands (group 2) mentioned lack of work as an important stressor. (None of them had work, because asylum seekers were not allowed to work, at the time of the study). Beiser and Hou (2001) found in a 10-year study among Asian refugees that unemployment was a potent riskfactor for depression. Our data give no clarification on the issue of the meaning of work, e.g.: social status, income, personal satisfaction, social network. Many asylum seekers come from countries where one has to work for a living and where social benefits are not known. It might be hard on them to accept the fact that nothing can be done to improve their socio-economic situation. Presently (September 2004) asylum seekers are allowed to work for several weeks a year. However, only few are able to find a job due to the strict rules implied.

Only few studies address family related issues as a riskfactor for psychopathology. Rousseau et al. (2001) found that the joint occurrence of trauma and family separation had a significant impact on emotional distress and the study of Hauff and Vaglum (1995) showed that chronic family separation was significantly associated with the likelihood of suffering from psychiatric disorder. In the same study ‘living separated from children’ was found to be a significant riskfactor and this in concordance with our study.

**Pre and postmigration riskfactors**

In relation to the question of the relative impact on psychopathology of pre- versus postmigration problems: earlier analyses on data of the same study group (Laban et al., 2004) revealed that, except for post-traumatic stress disorder, the risks for psychopathology of the post-migration variables were higher than the pre-migration variables (e.g., for ‘one or more’ psychiatric disorder, the odds ratio’s of Adverse life events after arrival (OR 1.66; 95%CI 1.13-2.44) and of group 2 membership (OR 2.16; 95%CI 1.15-4.08) were higher than the odds ratio of adverse life events between 13th year and departure (OR 1.35; 95%CI 1.22-1.49).
To our knowledge this study was the first that compared the relative contribution of risk factors in the pre- and post-migration risk factors for common psychiatric disorders in asylum seekers. The present article adds to the knowledge of the importance of specific risk factors for common psychiatric disorders in the post-migration period. Studies among asylum seekers on this issue are scarce. Silove et al. (1997, 1998) showed the importance of PMLP (see above): he found relationships between anxiety and depressive scores and PMLP, but not with trauma’s in the past. Steel et al. (1999) studied the relative impact of pre and post-migration risk factors, but focused on post-traumatic stress symptoms only.

There are several studies among refugees on the impact of pre versus post-migration factors. Gorst-Unsworth et al. (1998) found in a clinical based study among 81 Iraqi refugees that poor social support was a stronger predictor of depressive morbidity than trauma factors. Mollica et al. (1998) studied 993 Cambodian adults in a Thai camp with the use of the HTQ and HSCL-25 and compared the influence on symptom scores of recent trauma’s with past trauma of the Pol Pot era. He found that recent trauma’s, though fewer in number, are more potent in their influence on current symptoms (e.g., for depression a slope coefficient of 0.032 (95%CI 0.026-0.038) versus 0.070 (95%CI 0.052-0.088)).

Limitations of the study
A longitudinal design would have been more appropriate for the measurement of the effects of post-migration stress over time. For practical reasons we considered this as impossible (the frequent moves, disappearance etc). In the used cross-sectional study potential risk factors were derived from other studies and literature. The distribution of gender and age of the respondents in the study were similar to the original population, but different between the study samples, therefore the analyses are adjusted for these differences. However, it is still possible that the groups remain different in some aspects which had its, unknown, impact on the findings.

Another limitations of the study is that the majority of the PMLP were measured in terms of ‘worries’ about certain items. Although a Lickert scale was used to measure the severity of the worries, it gives room for an interpersonal different interpretation. (e.g., when you are just arriving in the country, you can be worried about your chances in the asylum procedure. When you receive your fourth ‘negative’ your worries grow. In the answer, however, this difference in worries is not necessarily reflected, both persons can answer with ‘a lot’). This limitation might explain the finding that the differences in the (clustered) PMLP between the two groups were not as big as
expected. This, sequentially, had its impact on the Odds ratio’s found in relationship with psychopathology, which are relatively low.

Finally, one should realize (as pointed out earlier by Lavik et al. (1996) and Kivling-Boden et al. (2002)) that the relationship between PMLP and psychopathology is not a simple cause-and-effect relationship. Synergistic interaction between pre- and postmigration stressors might occur and there is room for vicious circles: PMLP may influence mental health and mental ill health may create more PMLP, and so on. We think, however, that due to our study design (comparing a recently arrived group with a ‘long stay’ group and adjusting for gender, age, adverse life events), we have arguments to consider the PMLP (especially asylum procedure stress, lack of work and family related issues) as predictors of mental ill health. Further research is needed though.

**Conclusions and recommendations**

Asylum seekers face numerous post-migration living problems. Several clusters could be identified: family issues, discrimination, asylum procedure related issues, socio-economic living conditions, socio-religious aspects and work-related issues. From these problems: family issues, asylum procedure-related issues and work-related issues were found to have the strongest relationship with psychopathology. The problems appeared to be much more present in the group asylum seekers that stayed more than two years in the Netherlands, compared with those that just arrived. From earlier analysis (Laban et al., 2004) it is known that this group had significantly higher prevalence rates than the group that just arrived in the country. The present results, described in this article, give an explanation of this finding and lead to an appeal to governments to realize the serious mental health impact of a long asylum procedure and do all they can to shorten these procedures. They are encouraged to allow asylum seekers to work and give preference to family reunion (at least within the host country). Mental health workers should realize the importance of PMLP and consider to focus their treatment on (coping with) these problems instead of focusing on trauma’s from the past only.

**References**

For a complete list of the references we refer to the back of the thesis.