



Chapter | 6

The impact of a long asylum procedure on quality of life, disability and physical health in Iraqi asylum seekers in the Netherlands

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Abstract

Background

Literature shows high prevalence rates of psychopathology among asylum seekers, but there has been little interest for other impaired dimensions of health.

Objectives

The objectives of this study are to explore quality of life, disability and physical health and their relationships with psychopathology and pre- and post migration variables.

Method

Two groups of pre-stratified (length of asylum procedure), randomly selected Iraqi asylum seekers (N=143 and N=151), were interviewed with fully structured, culturally validated questionnaires. Quality of life (QoL) was examined with QoLWHO-Bref, functional disability with the Brief Disability Questionnaire (BDQ) and physical health with a newly developed questionnaire. Psychiatric disorders were measured with the WHO CIDI 2.1. Multivariate logistic regression analyses were used to estimate the relationships.

Results

Respondents with a long asylum procedure reported significantly lower QoL, higher functional disability and more physical complaints. Multivariate regression shows that length of stay is the strongest predictor for a low overall QoL. In addition, lower QoL was predicted by psychopathology, higher age, adverse life events in the Netherlands and the PMLP-clusters: family issues, socio-economic living conditions and socio-religious aspects. Disability was predicted by psychopathology, higher age and the PMLP clusters: family issues and socio-religious aspects. Physical complaints were predicted by length of asylum procedure, psychopathology, female sex, adverse life events in Iraq and PMLP-family issues.

Conclusion

A long asylum procedure has a negative impact on the overall health situation of asylum seekers. The situation is not only harming the affected, but also interferes with the integration process in the Netherlands or elsewhere.

Introduction

The problems of asylum seekers are numerous (Silove et al., 1997). They left their country to find a better life but in general they face a long tough period of waiting in uncertainty and unfavourable living conditions (van Dijk et al., 2001). From a public health point of view it is important to have knowledge about the physical and mental status of this group. However data are scarce (Silove et al., 1997, Steel et al., 1999, Gerritsen et al., 2006, Ryan et al., 2008).

We did a national community survey among Iraqi asylum seekers ($n=294$) in the Netherlands. In an earlier study (Laban et al., 2004) we focused on psychopathology and found that 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%). Common mental disorders (depression, anxiety, and somatoform disorders) were more prevalent and, after adjusting for different risk factors including adverse life events in Iraq, length of stay in the Netherlands was detected as the highest risk factor, next to female sex. Remarkably, prevalence rates of PTSD did not differ between both groups. In another study (Laban et al., 2005) we found that post-migration factors (lack of work, family related issues and asylum procedure related stress) appeared to be stronger related with mental health status than trauma related factors.

Psychopathology does not cover the full range of health problems and the subjective experience of the asylum procedure. During this procedure the individual has to deal with different matters from the past (e.g., exile, trauma, cultural bereavement), present (e.g., daily hassles, nostalgia) and future (e.g., uncertainty). To understand the complexity of factors and to explore their potential negative impact on mental health, we therefore assessed several other indicators of health, i.e.: quality of life, disability and physical health. As is known from the literature (e.g., Ghazinour et al., 2004, Mollica et al., 1999, Sanderson et al., 2002, Simon et al., 1999) these indicators are often associated with psychopathology. Since our earlier analyses showed high prevalence rates of psychopathology in the group with a long asylum procedure, it can be hypothesised that this will effect the outcome of the other indicators of health. This hypothesis was operationalized by the following research questions: a) Is the length of the asylum procedure associated with lower quality of life, higher disability and lower physical health status? and b) What is the relationship of these indicators of health with psychopathology and c) What is the impact of the length of asylum procedure, adverse life events and post-migration living problems, on the relationship between psychopathology and these three indicators of health?

Methods

A comprehensive description of the study design, sampling procedure, response rates, diagnostic instruments, translation, procedure and prevalence rates is provided in previous articles (Laban et al., 2004, 2005). Below we give a summary of the methods and provide information about items that are of special interest in the present article.

Participants

From the registered population of adult Iraqi asylum seekers in the Netherlands, two groups were pre-stratified based on their length of stay in this country. Personal data of these groups were obtained from the Agency for the Reception of Asylum Seekers (COA). Unfortunately the data were not up to date and a considerable number of potential participants could not be contacted. Only the persons that could be contacted and were not excluded according to the exclusion criteria (e.g., relatives first line, having a resident permit, language problems, too sick to be interviewed), were considered to be eligible for the interview (Laban et al., 2004).

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 between September 2000 and November 2001. From the total group of 582 persons, we randomly selected 362 addresses (with the help of at random tables). We found 175 eligible individuals and 143 of them participated in the study.

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. From this list we took random samples (with the help of SPSS for Windows, Norusis, 1999). Because of the high number of inadequate addresses in our first sample of 250 persons, we selected another sample of 250 persons. After subtracting the 'doubles' the sample consisted of 474 persons. We found 190 eligible individuals and 151 of them participated in the study. In total 294 Iraqi asylum seekers participated in this study. The two groups were representative for the population on age and sex.

Instruments

The structured interview used in this study is a culturally adapted version of a structured interview 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, education and social status in Iraq and length of stay in the Netherlands.

Traumatic experiences and other adverse life events were gathered with the first section of Harvard Trauma Questionnaire (HTQ), an instrument widely used in research among refugees (Mollica et al., 1987). Data were collected retrospectively over four life periods: 0-12 years, 13 years – departure from Iraq, departure from Iraq – arrival in the Netherlands and after arrival in the Netherlands.

Post migration stress factors were assessed with a Post Migration Living Problems (PMLP) checklist, which was adapted from Silove et al. (1997). The list contained 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 items were clustered, based on a factor analysis (Laban et al., 2005).

Psychiatric disorders (DSMIV) were assessed with the World Health Organisation Composite International Diagnostic Interview (CIDI), version 2.1 (WHO, 1997), sections: C (somatoform disorders), D (anxiety disorders), E (depressive disorders), J (alcohol dependency and misuse) and K (obsessive compulsive disorder (OCD) and post-traumatic stress disorder (PTSD)). In this study we used cluster diagnoses; OCD is included in the anxiety disorders cluster and PTSD was considered separately.

Quality of life (Qol) was assessed with the WHOQOL-BREF. The WHOQOL-BREF assesses individual's perceptions in the context of their culture and value systems, and their personal goals, standards and concerns. Its psychometric properties were evaluated using cross-sectional data from 23 countries (n=11,830). Analyses of internal consistency, item-total correlations, discriminant validity and construct validity indicate that the WHOQOL-BREF has good to excellent psychometric properties and performs well in preliminary tests of validity. These results suggest that overall, the WHOQOL-BREF is a sound, cross-culturally valid assessment of Qol. The first two single questions i.e.: 'How would you rate your quality of life?' and 'How satisfied are you with your health?', refer to 'overall quality of life' and 'general health'. The other questions belong to different quality of life domains: physical (seven items), psychological (six items), social (three items) and environmental (eight items) (Skevington et al., 2004).

Disability was measured with the Brief Disability Questionnaire (BDQ). This instrument (Von Korff, 1996) is derived from the Medical Outcome Survey Short Form (SF-36) and rates impairment in daily activities. The reliability and validity of the instrument has been evaluated in a 15-centre, cross-national, multilingual study. The BDQ has good internal consistency and is associated with varying disability across anxiety, affective and somatisation disorders (Ormel et al., 1994). The BDQ asks respondents whether they were limited in physical and social activities by their health problems. Two additional questions ask about days of serious impairment and the total numbers of days spent in bed due to ill health. In this study we used the total score for physical and social role impairments (eleven items) and the score BDQ-days that referred to the total number of days with serious impairment in the last month.

Physical health was assessed with 22 items, dealing with perceived physical health ('In general, how do you consider your physical health?') and chronic physical health problems and physical handicaps. The physical health problems were divided in two categories: physical complaints (stomach problems, intestinal problems, back problems more than three months, joint problems more than three months, headache more than three months) and physical diseases (lung disease, heart disease, high blood pressure, liver disease, kidney disease, diabetes, epilepsy, eye problems, ear problems, wounds by accident, hereditary disease, other illness).

The Iraqi-Arabic structured interview used in this study, was based on a Palestinian-Arabic version and culturally validated and translated in a 7-step procedure (Flaherty et al., 1988, de Jong et al., 2001). For use in the Iraqi population a focus group of eight men and women from different ethnic and professional backgrounds modified the instruments according to the guidelines described by Van Ommeren et al. (1999). Trained interviewers who were fluent in Dutch and Arabic took all interviews.

Statistics

Both groups were compared on their socio-demographic characteristics with χ^2 -tests (frequencies) and Student t-tests (mean scores). Cronbach's alpha's were calculated for all (sub)scales. The scores on the single item variables 'overall QoL', 'perceived general health' and 'perceived physical health' were compared with the Mann-Whitney U-test. The mean scores of the (sub)scales of QoL, BDQ and physical health were compared with Student t-tests.

To explore the relationship between the study outcome variables (quality of life, disability, physical health) and the predictor variables (socio-demographics, adverse life events, post-migration living problems and psychopathology), we used a 3-step procedure. First, we calculated a correlation matrix from the predictor and outcome variables. Second, the predictor variables that were significantly correlated ($p < 0.05$) with one of the study outcome variables, were entered as clusters in separate multivariate linear regression analyses: Cluster 1: socio-demographics: length of stay (study group), sex, age, family in the Netherlands, Cluster 2: trauma related issues: youth domestic stress, death in the family, torture, other adverse life events until 13th year, between 13th year and departure, between departure and arrival in the Netherlands, and after arrival in the Netherlands, Cluster 3: post-migration living problems: family issues, discrimination, asylum procedure issues, socio-economic living conditions, socio-religious aspects, lack of work, work below level, Cluster 4: psychopathology: one or more psychiatric disorder, i.e. depressive disorders, anxiety disorders, post-traumatic stress disorder, and somatoform disorder.

Third, all psychopathology items and all predictor variables with significant Beta coefficients found at step 2, were entered in one multivariate regression analysis per study outcome variable. For each outcome variable we estimated adjusted R squares (ΔR^2) and Beta's (β) for each predictor variable. The ΔR^2 show the proportion of explained variance of the outcome variable by all analysed predictors. The β shows the relative contribution in explained variance of the outcome variable of each predictor. For all tests used in this study differences were considered significant when $p < 0.05$. 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 subjects younger than 24 years of age, group 2 contained fewer females. The average time of stay in the Netherlands of group 2 is more than three years. On literacy, years of education, social status in Iraq and psychiatric problems in the family, the two groups were not different (Laban et al., 2004).

Quality of life, functional disability and physical health

The internal consistency of the subscales for assessing the domains of Qol was good (Cronbach alpha's > 0.7). Table 2 shows that group 2 had lower mean scores on the two overall measures of Qol and on all domains of Qol (all p 's ≤ 0.020), except on

‘social relationships’. The score on this domain was the same in both groups ($p>0.05$). Group 2 scored especially low on the domain ‘environmental aspects’.

Mean scores on functional disability were different between the groups for the variable ‘physical and role disability’ as well as for ‘days of disability’ (all $p's \leq 0.024$). The number of ‘days in bed due to ill health’ was on average 4.18 (not shown in table) and not significantly different between the groups ($p>0.05$).

Table 3 shows that the perceived physical health in group 2 was worse compared to group 1 ($p=0.001$). All chronic physical complaints, except for one, were significantly different between the groups (all $p's < 0.05$), i.e. showed a higher prevalence in group 2. Also the mean number of physical complaints (not shown in table) was higher in group 2, than in group 1 (1.62 [SD 1.58] versus 0.83 [SD 1.38], $p<0.0005$). With respect to the chronic physical diseases (not shown in table) only the prevalence of ‘lung disease’ was different between the groups (group 1: 1.4% and group 2: 7.3%, $p=0.014$). The mean number of physical diseases did not differ between the groups ($p>0.05$).

Relationship indicators of health with psychopathology

Table 4 (first columns: ΔR_1^2 and β_1) presents the relationships between quality of life and psychopathology. Overall quality of life (Qol 1), perceived general health (Qol 2) and the four domains of Qol are all significantly associated with psychopathology. The proportion of explained variance (ΔR_1^2) of psychopathology related to the Qol scales varied between 12% and 31%. No particular psychiatric disorder contributed significantly to the proportion of variance in Qol 1 (no significant $\beta's$). All psychiatric disorders contributed significantly to the domain ‘physical health’. PTSD contributed significantly to all Qol domains, except domain 3. Overall the relationship between psychopathology and the domains 1 and 2 was stronger compared with the domains 3 and 4.

Table 5 (first columns: ΔR_1^2 and β_1) presents the relationship between disability, physical health and psychopathology. Both aspects of the two outcome measures are significantly related to psychopathology (explained variance between 12% and 32%).

Predictors of Quality of life

Table 4 (second columns: ΔR_2^2 and β_2) shows the final results of the three step analytic procedure (see statistics) on quality of life.

After adding the significant risk factors of the socio-demographics, the adverse life events and the post-migration living factors to the analyses, the proportion of explained variances went up in all Qol scales. Most beta's of the psychopathology items went down, meaning that the added risk factors are weakening the relationship between psychopathology and Qol.

A long asylum procedure (being a member of group 2) was the strongest independent predictor of 'overall quality of life' (Qol1). Also 'adverse life events in the Netherlands' was a significant predictor for Qol1. Psychopathology did not contribute significantly to this outcome measure.

Significant predictors for 'perceived general health' (Qol2) were: depressive disorders, PTSD, somatoform disorders and PLMP- family issues.

Significant predictors for the four Qol domains were next to some types of psychopathology: age, adverse life events after arrival, PMLP family issues, socio-economic living conditions, socio-religious aspects. Most predictor variables were related with only one domain. PMLP socio-economic living conditions was a significant predictor of three domains.

In conclusion, the final multivariate analyses revealed that: sex, having family in the Netherlands, youth domestic stress, death in the family, torture, other adverse life events before arrival in the Netherlands, and the PMLP discrimination, asylum procedure, work related items, had no significant associations with dimensions of Qol. (Ethnicity and religion did not show any association with Qol in the first step of the analysis – correlation matrix – and were not entered in the next steps).

Predictors of functional disability and physical health

Table 5 (second columns: ΔR_2^2 and β_2) shows the final results of the three step analytic procedure (see statistics) on disability and physical health.

A similar pattern emerges as in Qol: increase of the proportions of explained variance and weakening of the relationship with psychopathology. Physical and role disability (BDQtot) was predicted by 'one or more psychiatric disorder' but also by age and PMLP-family issues. The predictors for number of days of dysfunctioning (BDQdays) were next to depressive and somatoform disorders: age and socio-religious aspects. Being a victim of torture had a negative relationship with this outcome measure. Post hoc analysis revealed that, although the beta is significant, the contribution is small: if torture is removed from the analysis the adjusted R square drops only .007.

Significant predictors for chronic physical diseases (SOMdis) were next to anxiety disorder, PTSD and somatoform disorders: age, PMLP-family issues and socio-religious aspects. Besides depressive, anxiety and somatoform disorders, the number of chronic physical complaints (SOMcom) was also predicted by: study group (=length of stay), female sex, adverse life events between 13th year and departure and PMLP-family issues.

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.

Variables	Group 1 (n=143)	Group 2 (n=151)	Total (n=294)	P value
Stay in months (mean, SD)	2.51 (1.16)	36.77 (6.3)	20.12 (17.76)	p<0.0005,t(292)=63.66
Sex (%)				p<0.0005, $\chi^2(1)=27.31$
Male	49.7	78.8	64.6	
Female	50.3	21.2	35.4	
Age (%)				p=0.003, $\chi^2(4)=16.35$
18-24 years	21.7	9.3	15.3	
25-34 years	42.0	49.0	45.6	
35-44 years	14.7	25.8	20.4	
45-64 years	14.0	13.2	13.6	
> 64 years	7.7	2.6	5.1	
Ethnicity (%)				p=0.008, $\chi^2(3)=11.80$
Arabic	30.8	32.5	31.6	
Kurdish	48.3	53.0	50.7	
Armenian	11.9	2.0	6.8	
Other	9.1	12.6	10.9	
Marital status (%)				n.s.
Married	60.8	70.2	65.6	
Widow/widower	7.7	5.3	6.5	
Divorced	1.4	3.3	2.4	
Never been married	30.1	21.2	25.5	
Highest education (%)				n.s.
College/University	34.4	38.9	36.8	
Middle/high school	36.9	35.3	35.1	
No school / primary school	28.5	25.8	27.1	
Religion (%)				p=0.005, $\chi^2(3)=12.73$
Sji'it Muslim	18.6	17.6	18.1	
Sunni Muslim	50.0	49.3	49.7	
Christian	24.3	13.5	18.8	
Other	7.1	19.6	13.3	

n.s. = not significant: $p \geq 0.05$.

Table 2. Quality of life and disability in at random samples of Iraqi asylum seekers arrived < six months (group 1) and > two years (group 2) in the Netherlands, 2000-2001.

Quality of life	Group 1 n=143	Group 2 n=151	Total n=294	P value	Alpha†
	mean (SD)	mean (SD)	mean (SD)		
Overall quality of life ¹	2.88 (0.99)	2.23 (1.14)	2.55 (1.11)	p<0.0005,z(294)=-5.29	
Perceived general health ¹	3.06 (1.15)	2.74 (1.27)	2.89 (1.22)	p=0.017,z(294)=-2.39	
Domains:					
Physical health ²	55.08 (19.72)	47.50 (20.72)	51.19 (20.58)	p=0.001,t(292)=3.21	0.8372
Psychological health ²	50.00 (15.82)	45.28 (18.70)	47.58 (17.49)	p=0.020,t(292)=2.33	0.7446
Social relationships ²	49.38 (22.18)	46.60 (21.51)	47.96 (21.85)	n.s.	0.7103
Environment ²	43.57 (14.87)	37.17 (17.27)	40.29 (16.47)	p=0.001,t(292)=5.26	0.8133
Disability					
Physical and role disability (BDQTot) ³	17.31 (7.43)	19.25 (6.77)	18.30 (7.15)	p=0.020,t(292)=-2.34	0.9488
Days of disability (BDQdays) ⁴	5.37 (8.24)	7.68 (9.17)	6.56 (8.80)	p=0.024,t(292)=-2.27	

† standardized cronbach alpha

¹ scale of 1 (very bad) – 5 (very good)

² scale of 1 (very bad) – 100 (very good)

³ BDQTot: range: 11 (no impairment at all) – 33 (serious impairment)

⁴ BDQdays: range: 0 -31 (1 months)

n.s.: not significant p≥0.05

Table 3. Perceived physical health, chronic physical complaints and physical handicaps in at random samples of Iraqi asylum seekers arrived < six months (group 1) and > two years (group 2) in the Netherlands, 2000-2001.

	Group 1 n=143	Group 2 n=151	Total n=294	P value
	mean (SD)	mean (SD)	mean (SD)	
Perceived physical health ¹	2.87 (1.21)	3.25 (1.14)	3.06 (1.19)	p=0.001,Z(292)=-3.27
Chronic physical complaints	%	%	%	
One or more physical complaint	38.5	66.2	52.6	p<0.0005,χ ² (6)=31.857
Dizziness with falling	17.5	32.5	25.2	p=0.003,χ ² (1)=8.736
Headache > three months	15.4	33.8	24.8	p<0.0005,χ ² (1)=13.308
Back problems > three months	11.9	31.1	21.8	p<0.0005,χ ² (1)=15.961
Stomach problems	14.7	27.8	21.4	p=0.006,χ ² (1)=7.519
Joints problems > three months	14.7	26.5	20.7	p=0.013,χ ² (1)=6.224
Intestinal problems > three months	9.1	9.9	9.5	n.s.
Physical handicap	5.6	8.0	6.8	n.s.

¹ scale of 1 (very good) -- 5 (very bad)

n.s. : not significant p≥0.05

Table 4. Independent predictors for quality of life, expressed in adjusted R squares and Beta's.

	QoL 1'		QoL 2'		Dom 1'		Dom 2'		Dom 3'		Dom 4'	
	ΔR^2	β_2	ΔR^2	β_2	ΔR^2	β_1						
Psychopathology												
One or more psychiatric disorder	-.19	-.15	-.12	-.09	-.21*	-.19*	-.09	-.04	-.12	-.09	-.21*	-.15
Depressive disorders	-.10	-.05	-.15*	-.11*	-.21*	-.19**	-.09	-.08	-.13	-.10	-.06	-.03
Anxiety disorders	-.12	-.06	-.15*	-.12	-.12*	-.08	-.16*	-.17*	-.02	-.05	.02	-.05
PTSD	-.04	-.03	-.17*	-.14*	-.09*	-.08	-.17*	-.18*	-.13	-.12	-.15*	-.14*
Somatiform disorders	-.06	-.03	-.14*	-.13*	-.15*	-.12*	-.16**	-.15**	-.12*	-.11	-.12*	-.09
Socio-demographics												
Study group (group2)				.05		.02		.01				-.02
Age (older age)						-.14**						
Adverse Life Events						.08						
Between 13th year and departure												
After arrival in the Netherlands		-.13*		-.09		-.15*		-.01		-.08		-.11
Post Migration Living Problems												
Family issues				-.14*		.01		-.05		-.09		-.06
Socio-economic living conditions		-.10		-.07		-.20**		-.14*		-.07		-.27**
Socio-religious aspects												.12*

* p<0.05.

** p<0.01.

' QoL 1': Overall Quality of life; QoL 2: Perceived general health; Dom 1: QoL Physical Health; Dom 2: QoL Psychological health; Dom 3: QoL Social Relationships;

Dom 4: QoL Environment.

ΔR^2 and B_1 refer to estimates from the regression analyses of QoL and psychopathology.

ΔR^2 and B_2 refer to estimates from the regression analyses of QoL and all the included risk factors.

Table 5. Independent predictors of functional disability and physical health expressed in adjusted R squares and Beta's.

	BDQ tot'		BDQ days'		SOM dis'		SOM com'	
	ΔR_1^2	ΔR_2^2						
	β_1	β_2	β_1	β_2	β_1	β_2	β_1	β_2
Psychopathology								
One or more psychiatric disorder	.35**	.28**	.09	.09	.11	.02	.05	-.03
Depressive disorders	.07	.06	.18*	.17*	.08	.07	.24**	.20**
Anxiety disorders	.06	.07	-.03	-.06	.12	.14*	.22**	.17**
PTSD	.001	-.01	.09	.12	.15*	.12*	.04	-.01
Somatoform disorders	.05	.01	.16**	.13*	.16**	.12*	.30**	.25**
Socio-demographics								
Study group (group2)		.01		.08				.13 *
Sex (female)								.17**
Age (older age)		.20**		.16**		.33**		.05
Adverse Life Events								
Torture				-.14				-.04
Between 13th year and departure		-.02		.04		.06		.18**
After arrival in the Netherlands						.03		-.002
Post Migration Living Problems								
Family issues		.18**				.18**		.16**
Socio-religious aspects				.15**		.11**		

* $p < 0.05$ ** $p < 0.01$ ΔR_1^2 and B_1 Refer to estimates from the regression analyses of BDQ, SOM and psychopathology. ΔR_2^2 and B_2 Refer to estimates from the regression analyses of BDQ, SOM and all the included risk factors.

'BDQ tot' total score of disability.

'BDQ days' days of serious impairment of daily activities last month.

'SOM dis' chronic physical diseases: lung disease, heart disease, high blood pressure, liver disease, kidney disease, diabetes, epilepsy, eye problems, ear problems, wounds by accident, hereditary disease, other illness.

'SOM com' chronic physical complaints: stomach problems, intestinal problems, back problems more than three months, joints problems more than three months, headache more than three months.

Discussion

To our knowledge this is the first community survey among asylum seekers, that is focused on the relationships between quality of life, disability, physical health and psychopathology. The main findings are that Iraqi asylum seekers who stayed more than two years in the Netherlands report a significantly lower quality of life, a higher disability and more chronic physical complaints compared to those who arrived in the country less than six months before the interview. Multiple regression analyses confirmed the hypothesis that these 'other indicators of health' were all associated

with psychopathology but further analyses show that length of stay, adverse life events as well as various post-migration living problems predicted various aspects of quality of life, disability and physical health independently from psychopathology.

Quality of life, disability and physical health in asylum seekers

The study results show that the length of the asylum procedure is associated with lower quality of life, higher disability and a lower physical health status. So the answer to our first research question is confirmative.

Group 2 scored lower on all quality of life aspects and domains except for 'social relationships'. The score on this domain did not differ between the groups. The last finding is noteworthy because one may expect that group 2, with a longer stay in the Netherlands, had more opportunities to build a social network and would have a higher score than group 1. One of the explanations might be the frequent (forced) moves that result (together with the financial limitations) in disconnection of possible newly acquired social contacts.

The domain 'environmental aspects' scored very low, especially in group 2. This domain contains the following aspects: safety of the living environment, financial situation, availability of information, opportunity for leisure activities, access to health services, satisfaction with transport facilities. Some of these aspects are also mentioned as stressors in qualitative studies (De Jonghe et al., 2004; Van Dijk et al., 2003). Moreover Van Dijk et al. found that the feeling of 'empty existence' was highly present among the 22 interviewed asylum seekers. In a study among 100 Iranian refugees in Sweden, Ghazinour et al. (2004) found that a sense of meaningfulness strongly contributed to a higher Qol (WHOQOL-100). In our study meaningfulness was an aspect in the domain of psychological health: "To what extent do you feel your life to be meaningful?". The score of this domain was significantly lower in group 2.

The mean score on both dimensions of functional disability is higher in group 2 compared to group 1. VonKorff et al. (1996) found in a 15-centre cross-national WHO study among 5438 primary care patients a BDQtot mean score of 14.01 and a BDQdays score of 1.79. Our study showed much higher scores in both groups but especially in group 2. We did not find a study among asylum seekers on functional disability to compare with.

The findings on the physical health items revealed significantly higher percentages of chronic physical complaints in group 2 compared to group 1. This is in line with the finding (Laban et al., 2004) that group 2 had a higher prevalence of somatoform

disorder. About one third of group 2 had complaints of dizziness with falling, headache or backproblems for over three months. Van Willigen et al. (1995) investigated 153 asylum seekers and refugees and found stomach complaints in 19%, headache in 16% and dizziness in 8% of the study group. These percentages are lower compared to the results of our study. An explanation can be that 70% of the study group of Van Willigen et al. was living in the Netherlands for less than one year. Gerritsen et al. (2006) found, in a study among a mixed group of asylum seekers (n=232) and refugees (n=178) in the Netherlands: 33.4% severe/chronic back complaints and 32.6% migraine/severe headache. The mean time of stay in the Netherlands was 5.6 years (asylum seekers 3.4). These percentages are in line with our results of group 2.

The high prevalence of physical complaints in asylum seekers may create obstacles for health workers in an adequate referral process (Laban et al., 2007).

Relationship indicators of health with psychopathology

The analyses in relationship to our second research question confirm the findings found in other studies (see Introduction) that psychopathology is associated with lower quality of life, higher disability and more physical health problems. It makes clear that the suffering associated with a psychiatry disorder extends beyond the signs and symptoms of the disorder to broader areas of health (related) problems and impaired well-being. The pattern of associations differs per psychiatric disorder. The results emphasize the entanglement of psychopathology and physical health problems in various ways: all types of psychiatric disorders are (negatively) related to the Qol domain 'physical health' and various psychiatric disorders predict somatic complaints (SOMcom) and to a certain extent also somatic diseases (SOMdis). Furthermore, psychopathology shows the highest explained variance in Qol domain 'physical health' ($\Delta R^2=.31$) and somatic complaints ($\Delta R^2=.32$).

Predictors of quality of life, functional disability and physical health

The found relationship between psychopathology and the 'other indicators of health' underlines the importance of our third research question: The relationship between length of asylum procedure (member of group 2) and these indicators might be explained entirely by the fact that group 2 had significantly higher prevalence rates of psychiatric disorders (Laban et al., 2004). However, the study findings show that this is not the case: the relationship between psychopathology and Qol, disability and physical health is mediated by length of asylum procedure, post-migration living problems and adverse life events. The length of the asylum procedure (member group 2) was the strongest predictor for 'overall quality of life'. The finding that length

of the asylum procedure, adverse life events in the Netherlands and socio-economic living problems had more impact on quality of life than psychopathology is important in relation with possible interventions. Next to shortening the asylum procedure, improvement of the living conditions (privacy, housing, safety, financial situation etc) is very important as well as creating more possibilities for family reunion (e.g., with family living in the Netherlands already) and more opportunities to enable people to practice their religion. It is suggested that these type of interventions should be the focal points for action to improve the quality of life of asylum seekers, rather than focus on pre-migration life events.

Psychopathology remained a significant predictor for functional disability after correcting for mutual effects of other factors. Higher age was a strong predictor for both disability measures, which is understandable. Length of asylum procedure did not contribute significantly to functional disability. However, there was a strong relationship with the post-migration living problems 'family related issues' and 'socio-religious aspects' and disability. Earlier analyses (Laban et al., 2005) showed that 'family related issues' (i.e. missing the family, worries about family in Iraq, unable to go home in case of emergencies, loneliness) were much more present in group 2, indicating that the length of stay (indirectly) does play an important role in relation to disability. 'Family related issues' was an significant riskfactor for psychopathology (Laban et al., 2005). The present analyses showed that these problems predict also functional disability, independently from psychopathology. So also people without any psychiatric disorder experience a lower level of functioning by post-migration living problems.

The finding that being a victim of torture had a (though limited) protective influence on disability (BDQdays) is remarkable and needs more research.

Although chronic physical diseases and complaints were predicted by psychopathology and the relationship between PTSD and physical diseases is noteworthy, the contribution of other factors is substantial. The contribution of higher age to physical diseases is understandable, but the strong direct impact of family related issues and socio-religious aspects is not easy to understand. It, however, suggests that these problems give a lot of stress which contribute to mental as well as physical health problems.

In conclusion: our study shows that a long asylum seeking procedure is not only associated with higher prevalence rates of psychopathology but also with lower quality of life, higher disability and poorer physical health. Length of stay, adverse life

events as well as post-migration living problems predicted various aspects these health indicators independently from psychopathology. The overall poor health situation is harming the affected and their families and is a threat to the (re)integration process, in the host country or elsewhere. The findings strongly suggest that shortening of the asylum procedure, prevention of adverse life events in the Netherlands, improvement of the socio-economic living conditions and special attention to family related issues and socio-religious aspects are important to positively influence quality of life, disability and physical health in asylum seekers. In the treatment of psychiatric disorders special attention should be given to disability and physical health problems.

Limitations of the study

A longitudinal design would have been more appropriate for studying the effects of a long asylum procedure. We considered this as not feasible (the frequent moves, disappearance etc would have made it very hard to follow and track individuals for a longer period and it would have been time consuming and very expensive). We included many risk factors in our study, compared the two groups on these factors and estimated the contribution to the outcome measures. However, it is still possible that the groups remain different in some aspects which had its, unknown, impact on the findings. Although a cross sectional design can not provide evidence for causality, we tried to find evidence for the existence of this type of relationships between our study variables.

References

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

