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'Gevlucht – Gezond?'

Een onderzoek naar de gezondheid van, en het zorggebruik door asielzoekers en vluchtelingen in Nederland

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Het onderzoek is gefinancierd door ZonMw, programma preventie (projectnummer 2100.0097).

Inhoud

Voorwoord	5
Samenvatting	7
Summary	13
1 Health and health care utilisation among asylum seekers and refugees in the Netherlands: design of a study	17
2 Physical and mental health of Afghan, Iranian and Somali asylum seekers and refugees living in the Netherlands	35
3 Use of health care services by Afghan, Iranian and Somali asylum seekers and refugees living in the Netherlands	49
4 Health and health care use of asylum seekers and refugees in the Netherlands: a medical records study	59

Voorwoord

Door de afdeling Medische Psychologie en het Instituut voor Extramuraal Geneeskundig Onderzoek (EMGO Instituut) van het VU medisch centrum (VUmc) te Amsterdam en het NIVEL te Utrecht is een onderzoek uitgevoerd naar de gezondheid van, en het zorggebruik door asielzoekers en vluchtelingen in Nederland. Het onderzoek ‘Gevlucht-Gezond?’ heeft als doel vast te stellen welke gezondheidsproblemen (zowel lichamelijke als psychische) het meeste voorkomen onder asielzoekers en vluchtelingen in Nederland en in welke mate asielzoekers en vluchtelingen een beroep doen op de gezondheidszorg. Ook zijn risicofactoren van gezondheidsproblemen en het gebruik van zorg nagegaan. Dit rapport bundelt een aantal Engelstalige artikelen die op basis van de resultaten van het interviewdeel van het onderzoek - uitgevoerd door het VUmc - zijn geschreven, en een Engelstalige rapportage over de resultaten van het dossieronderzoek - uitgevoerd door het NIVEL. Daarnaast zijn zowel een Nederlandstalige als een Engelstalige samenvatting van het onderzoek opgenomen.

Aan dit onderzoek hebben heel veel mensen hun medewerking verleend. Op deze plaats willen wij hen noemen en bedanken voor hun bijdragen.

ZonMw, programma preventie, willen wij graag bedanken voor het beschikbaar stellen van een subsidie voor een inventariserende studie naar de gezondheid van en het zorggebruik door asielzoekers en vluchtelingen, en voor het feit dat wij van hen de mogelijkheid hebben gekregen deze studie uit te voeren (projectnummer 2100.0097).

Ook bedanken wij de afdeling Medische Psychologie en het EMGO Instituut van het VUmc, en het NIVEL voor het faciliteren van het onderzoek.

De projectgroep van het onderzoek bestond uit:

- VUmc: Dr. A.A.M. Gerritsen (onderzoeker/projectleider), Dr. I. Bramsen (projectaanvrager), Drs. F.A.H. van der Linden (onderzoeksassistent), Prof. dr. H.M. van der Ploeg (afdelingshoofd Medische Psychologie ten tijde van het onderzoek)
- NIVEL: Dr. W. Devillé (projectleider), Drs. M. Lamkaddem (onderzoeker), Drs. M.C. Poortvliet (onderzoeker), Dr. D.H. de Bakker (projectaanvrager).
- Externen: Dr. L.H.M. van Willigen (Gezondheidszorg Vluchtelingen Consultancy), Dr. J.E. Hovens (Delta Psychiatrisch centrum). Graag willen wij hen bedanken voor hun inzet bij het opzetten van het onderzoek, de uitvoer ervan in de praktijk en tenslotte hun adviezen bij het analyseren en rapporteren van de resultaten.

Graag willen wij de begeleidingcommissie van het onderzoek bedanken voor hun deskundige en kritische begeleiding bij de opzet en uitvoering van het onderzoek. Deze begeleidingscommissie bestond uit: Drs. J. van Burg (COA), Prof. dr. S.A. Danner

(afdeling Inwendige Geneeskunde, VUmc), Drs. S. Goosen (GGD Nederland), Prof. dr. L.J.Th. van der Kamp (Universiteit Leiden), Prof. dr. E. van Leeuwen (sectie Filosofie en medische ethiek, Centrum voor Ethiek en Levensbeschouwing, VUmc), Drs. T. Menelik (VluchtelingenWerk Nederland), Dr. J.J. den Otter (Pharos), Dhr. E. Rashed/Mw. F. Özgümüs (VON).

Ook alle anderen die op de een of andere manier een bijdrage hebben geleverd aan het onderzoek, bijvoorbeeld bij het samenstellen, vertalen en crosscultureel valideren van de vragenlijst of bij het werven en trainen van de interviewers, willen wij bedanken.

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Verder willen wij alle interviewers bedanken voor hun inzet. Het was vaak niet eenvoudig om mogelijke respondenten te bereiken en vervolgens om ze bereid te vinden tot medewerking. Maar uiteindelijk is het toch gelukt om een groot aantal asielzoekers en vluchtelingen te interviewen. En ook de studenten die de gegevens uit de medische dossiers hebben verzameld willen wij bedanken voor hun inzet.

Bovenal willen wij alle asielzoekers en vluchtelingen die meegewerkt hebben aan het interview en toestemming hebben gegeven tot het inzien van hun medisch dossier bedanken. Zonder hen had dit onderzoek niet plaats kunnen vinden. Onze vragen hebben hen mogelijk herinnerd aan traumatische ervaringen uit het (recente) verleden, maar de antwoorden kunnen meehelpen om de gezondheidszorg voor (toekomstige) asielzoekers en vluchtelingen te verbeteren.

Oorspronkelijk was het de bedoeling dat op basis van de resultaten van dit onderzoek bij ZonMw een nieuw onderzoeksprogramma voor vluchtelingen en asielzoekers van start zou gaan waarbij verder ingegaan zou kunnen worden op de belangrijkste gezondheidsproblemen, potentiële determinanten, en toegang tot en kwaliteit van zorg. Door veranderingen in het beleid zal dit nieuwe programma er helaas niet komen. Voor onderzoekers kunnen de resultaten echter nog steeds als basis dienen voor verder onderzoek wat mogelijk op een andere wijze kan worden gefinancierd. Verder hopen wij dat beleidsmakers de resultaten kunnen gebruiken om aan te geven waar de zorg zich op zou moeten richten en dat individuele zorgverleners de resultaten kunnen gebruiken om hun eigen benadering van de gezondheidsvragen en zorgbehoeften van deze groep patiënten aan te passen.

Amsterdam/Utrecht, september 2005

Namens de projectgroep:

Annette Gerritsen (aam.gerritsen@vumc.nl) en Henk van der Ploeg
Majda Lamkaddem en Walter Devillé (w.deville@nivel.nl)

Samenvatting

Doel

Het onderzoek had als doel vast te stellen welke gezondheidsproblemen (zowel lichamelijke als psychische) het meeste voorkomen onder asielzoekers en vluchtelingen in Nederland en in welke mate asielzoekers en vluchtelingen een beroep doen op de gezondheidszorg. Ook zijn risicofactoren van gezondheidsproblemen en het gebruik van zorg nagegaan.

Opzet

Het onderzoek is gehouden onder asielzoekers en vluchtelingen uit Afghanistan, Iran en Somalië. Vluchtelingen hebben een verblijfsstatus, zijn meestal al lange tijd in Nederland en hebben net als andere Nederlanders direct contact tot de gezondheidszorg via de huisarts. Asielzoekers zijn nog in de procedure om een verblijfsstatus te krijgen, zijn minder lang in Nederland, wonen meestal in een asielzoekerscentrum en contacten met de gezondheidszorg verlopen in eerste instantie via een verpleegkundige van de Medische Opvang Asielzoekers (MOA). Gekozen is voor mensen uit Afghanistan, Iran en Somalië, omdat zowel onder de asielzoekers als onder de vluchtelingen Afghanen, Iraniërs en Somaliërs tot de grootste groepen behoren. In totaal is bij 410 volwassenen informatie ingewonnen, waarvan 232 mensen (116 Afghanen, 54 Iraniërs en 62 Somaliërs) vielen onder één van de 14 geselecteerde asielzoekerscentra en 178 mensen (90 Afghanen, 63 Iraniërs en 25 Somaliërs) ingeschreven waren bij de gemeentelijke basisadministratie van één van de geselecteerde gemeenten (Arnhem, Leiden en Zaanstad). Aan de deelnemers is een vragenlijst in de eigen taal aangeboden door een interviewer die uit hetzelfde land afkomstig was. Deze vragenlijst heeft een uitgebreid proces van vertaling en culturele validatie ondergaan. Aan het eind van het interview werd toestemming gevraagd om gegevens uit het medisch dossier te mogen halen.

Interviews

Studiepopulatie

In een periode van 10 maanden (juni 2003 tot april 2004) zijn 479 vluchtelingen benaderd in de 3 gemeenten. 34 vluchtelingen voldeden niet aan de inclusiecriteria (24 daarvan waren jonger dan 18 jaar) en 144 konden niet bereikt worden (60% was nooit thuis, 34% woonde niet meer op het verkregen adres). Van de 301 vluchtelingen die wel bereikt werden, wilden er 123 niet geïnterviewd worden, omdat ze het te druk hadden of niet geïnteresseerd waren in deelname. Dit resulteerde in een responspercentage van 59%

(178/301). In de 14 asielzoekerscentra werden 391 asielzoekers benaderd. 129 daarvan konden niet bereikt worden (66% woonde niet meer in het centrum, 34% was nooit thuis) en 1 was jonger dan 18 jaar. Van de 262 asielzoekers die bereikt werden, waren er slechts 30 niet bereid om deel te nemen, resulterend in een responspercentage van 89% (232/262). De groep mensen die wel en de groep die niet bereikt kon worden verschilde niet in leeftijd of geslacht. Tussen degenen die wel en die niet geïnterviewd wilden worden was ook geen verschil in leeftijd, maar wat geslacht betreft waren mannen vaker niet bereid tot deelname. Van de 178 asielzoekers kwamen er 25 uit Somalië, 90 uit Afghanistan en 63 uit Iran. Van de 232 vluchtelingen waren er 62 uit Somalië, 116 uit Afghanistan en 54 uit Iran afkomstig. In beide groepen was de meerderheid man (59%). Vluchtelingen waren gemiddeld ouder (40 jaar) dan asielzoekers (34 jaar) en waren gemiddeld langer in Nederland (8,8 versus 3,4 jaar). Vluchtelingen rapporteerden minder traumatische ervaringen, minder postmigratie-stress en meer sociale steun dan asielzoekers.

Gezondheid

Asielzoekers rapporteerden vaker een slechte algemene gezondheid (59% versus 42%) dan vluchtelingen. Beide groepen rapporteerden even vaak 'meer dan 1 chronische aandoening' (48%). De meest genoemde chronische aandoeningen waren: ernstige nek- en schouderproblemen, ernstige en chronische rugklachten, migraine en hevige hoofdpijn (allemaal 33%). Asielzoekers rapporteerden meer symptomen van posttraumatische stress (PTSS) (28% versus 11%), depressie (62% versus 29%) en angst (41% versus 28%).

Onder de autochtone Nederlandse bevolking rapporteert 18% een slechte algemene gezondheid en 30% meer dan 1 chronische aandoening, en 39% van de allochtonen (Turken, Marokkanen, Antillianen, Surinamers) rapporteert een slechte algemene gezondheid (data afkomstig uit de Tweede Nationale Studie van het NIVEL).

Determinanten gezondheid

In het algemeen rapporteerden respondenten uit Iran de meeste gezondheidsproblemen, gevolgd door respondenten uit Afghanistan. Respondenten die meer traumatische gebeurtenissen hadden meegemaakt, hadden hogere prevalenties van alle gezondheidsproblemen. Vrouwen rapporteerden meer chronische aandoeningen en PTSS- en angst/depressiesymptomen, terwijl hogere leeftijd was geassocieerd met een slechtere algemene gezondheid en chronische aandoeningen. Mensen met meer postmigratie-stress en mensen met minder sociale steun rapporteerden meer PTSS- en angst/depressiesymptomen.

Zorggebruik

Het gerapporteerde zorggebruik was vergelijkbaar voor asielzoekers en vluchtelingen wat betreft huisartsbezoek in de afgelopen 2 maanden (48%), bezoek aan een specialist in de afgelopen 2 maanden (21%), opname in een ziekenhuis in het afgelopen jaar (12%), gebruik van GGZ-voorzieningen in het afgelopen jaar (13%) en gebruik van medicatie in de afgelopen 14 dagen (59%).

Van de autochtone bevolking in Nederland rapporteert 42% huisartsbezoek in de afgelopen 2 maanden en van de allochtonen 51%. Voor ziekenhuisopname is dat 7,2%

voor de autochtonen en 7,5% voor de allochtonen, en voor gebruik van GGZ-voorzieningen 6%, respectievelijk 11%.

Determinanten gerapporteerd zorggebruik

Respondenten uit Afghanistan maakten vaker gebruik van de huisarts dan respondenten uit Somalië. Respondenten uit Iran maakten meer gebruik van GGZ-voorzieningen in vergelijking met respondenten uit Somalië en Afghanistan. Zowel respondenten uit Afghanistan en Iran gebruikten meer medicatie dan respondenten uit Somalië. Zowel vrouwen als mensen met een hogere leeftijd maakten meer gebruik van de zorg (met uitzondering van GGZ-voorzieningen). Een slechtere algemene gezondheid was geassocieerd met meer zorggebruik.

Conclusies

- De gevonden resultaten waren overeenkomstig de verwachtingen: asielzoekers rapporteren in het algemeen meer klachten dan vluchtelingen. Maar de prevalentie van klachten is echter in beide groepen hoog ten opzichte van de autochtone en allochtone bevolking in Nederland.
- Zowel zorgverleners voor asielzoekers als voor vluchtelingen moeten alert zijn op de hoge prevalentie van gezondheidsproblemen. Preventie-activiteiten en het behandelingsaanbod moeten daarop afgestemd worden.

Dossieronderzoek

Studiepopulatie

Van de 232 asielzoekers gaven 207 (89%) toestemming om hun medisch dossier op te vragen. 163 (70%) dossiers van volwassenen werden verzameld (93 Afghanen, 26 Iraniërs en 44 Somaliërs). 141 van de 178 vluchtelingen (79%) gaven toestemming. 102 (57%) dossiers (55 van Afghanen, 33 van Iraniërs en 14 van Somaliërs) werden uiteindelijk daadwerkelijk verzameld. De volwassen respondenten waarvan de dossiers verkregen werden weken niet significant af van de geïnterviewden wat betreft geslacht en leeftijd. Uiteindelijk zijn 228 volledige dossiers van de 265 aangehouden voor de analyses.

Gerapporteerde gezondheidsproblemen

In het interviewdeel van het onderzoek werd aan de respondenten gevraagd om maximaal 5 actuele gezondheidsproblemen op te geven. Bijna een vierde van de respondenten waarvan de dossiers beschikbaar waren (N=228) meldde geen problemen. Gemiddeld werd tweederde van deze gerapporteerde problemen en klachten in de dossiers teruggevonden. Verschillen tussen etnische groepen waren niet significant.

Geregistreerde gezondheidsproblemen

Asielzoekers en vluchtelingen vertonen vergelijkbare voornaamste lange-termijn-gezondheidsproblemen. De twee vaakst voorkomende problemen bij beide groepen zijn sociale problemen die te maken hebben met het vluchtverhaal, zoals het verlies van

familieleden, en het meemaken van (oorlogs)geweld. Hier is er geen verschil tussen de etnische groepen.

De groepen verschillen onderling wel in de gepresenteerde klachten en symptomen tijdens de contacten met de zorgverleners binnen de eerste lijn. In het algemeen presenteren asielzoekers meer psychische klachten dan vluchtelingen (respectievelijk 13,5% en 5,8% van alle klachten). Anderzijds presenteren vluchtelingen vaker klachten van de urinewegen en de luchtwegen. Etnische groepen verschillen ook in hun gepresenteerde klachten. De Somalische groep presenteert minder psychische klachten dan de twee andere groepen (5% van alle klachten binnen deze groep, vergeleken met 12% voor de Afghanen en 17% voor de Iraniërs). De Afghaanse groep onderscheidt zich van de andere twee groepen door een lager percentage luchtwegproblemen. Deze verschillen tussen etnische groepen komen zowel bij asielzoekers als bij vluchtelingen voor.

Gebruik van de gezondheidszorg

Vluchtelingen hebben gemiddeld 6,07 contacten per jaar met de huisartsenpraktijk, wat overeenkomt met het Nederlandse gemiddelde (6,1 contacten/patiënt/jaar). Verschillen tussen mannen en vrouwen waren vooral onder de Afghaanse groep aanwezig, waar vrouwen significant vaker contact hadden.

Asielzoekers hadden gemiddeld 10,9 contacten per jaar met zowel de MOA-verpleegkundige (7,7 contacten/patiënt/jaar) als de huisarts (3,2 contacten/patiënt/jaar). De MOA-verpleegkundige verwijst in bijna 35% van de gevallen naar de huisarts (contacten over tandproblemen en herhaalrecepten uitgezonderd).

Geregistreerde verwijzingen naar andere zorgverleners en specialisten

De huisarts verwijst ongeveer 17% van alle contacten met asielzoekers naar een andere zorgverlener. Dit verwijzingspercentage is veel hoger dan voor de autochtone ziekenfondspatiënten waarvan 5% van de contacten verwezen worden (maar waarvoor er geen extra poortwachter bestaat die de minder urgente/belangrijke klachten kan behandelen). De soort zorgverlener waarnaar verwezen wordt is vergelijkbaar met cijfers voor de Nederlandse populatie: vooral fysiotherapeuten (19,7% van alle huisartsenverwijzingen) en gynaecologen (12,1%). Opvallend is dat er bij asielzoekers relatief weinig verwezen wordt naar de geestelijke gezondheidszorg (14,3% van alle psychische en sociale klachten worden verwezen), in tegenstelling tot de hoge prevalentie van psychische problemen in deze groep (13,5% van alle klachten).

Dertien procent van alle contacten van de vluchtelingen met de huisartsenpraktijk worden verwezen naar een ander zorgverlener, ook meestal een fysiotherapeut (25% van alle verwijzingen van de praktijk) of een gynaecoloog (10%).

Conclusies

- De problemen van asielzoekers en vluchtelingen zijn in dezelfde mate bekend bij de zorgverleners. Dit zou erop kunnen wijzen dat beide systemen afgestemd zijn op de zorgvraag van beide groepen.
- De bestaande verschillen in de geregistreerde gezondheidsproblemen tussen asielzoekers en vluchtelingen kunnen mogelijk verklaard worden door het verschil in status, maar ook door het verschil in verblijfsduur of de leeftijd.

- De hoge prevalentie van psychische klachten onder asielzoekers heeft waarschijnlijk te maken met de recente vlucht en de grote onzekerheid over het verkrijgen van een verblijfsvergunning en daarmee over de toekomst.
- De verschillen in de geregistreerde gezondheidsproblemen tussen etnische groepen kunnen voor een deel hun oorzaak vinden in culturele verschillen. Het uiten van een gezondheidsprobleem verschilt tussen culturele groepen, en met name psychische klachten worden vaak anders uitgedrukt in verschillende groepen.
- Gezien het verschil in zorgsystemen tussen beiden groepen is de mate van zorggebruik niet één op één te vergelijken tussen asielzoekers en vluchtelingen. Desondanks deze beperking blijkt hieruit dat asielzoekers geen hogere huisartscontacten frequentie hebben dan de Nederlandse populatie, en dat het totaal aantal contacten met de huisartsenpraktijk van vluchtelingen ook vergelijkbaar is met de Nederlandse gemiddelde.

Interviews en dossieronderzoek: overeenkomsten en verschillen

De gezondheidsproblemen die door de asielzoekers en vluchtelingen als belangrijkste werden aangemerkt in het interview werden in tweederde van de gevallen teruggevonden in de medische dossiers. Dit is vergelijkbaar met gegevens uit de Nederlandse bevolking.

Zowel uit de interviews als uit het dossieronderzoek komt naar voren dat asielzoekers meer psychische klachten hebben dan vluchtelingen. En dat Somaliërs minder psychische klachten rapporteren dan Afghanen en Iraniërs. In beide onderzoeken valt ook op dat ondanks die hoge prevalentie van psychische klachten het gebruik van GGZ-voorzieningen relatief laag is.

Uit het dossieronderzoek blijkt dat asielzoekers meer contacten hebben met de eerste lijn, maar ook dat dit met name komt doordat klachten eerst gezien worden door de MOA-verpleegkundige en een deel van de klachten daarna nog eens door de huisarts. In de interviews rapporteerden asielzoekers en vluchtelingen evenveel contacten met de huisarts. Waarschijnlijk is het voor de asielzoekers vaak onduidelijk bij wie ze precies voor een consult komen, de MOA-verpleegkundige of de huisarts.

Uit het interviewgedeelte blijkt dat asielzoekers en vluchtelingen meer gezondheidsproblemen rapporteren dan de Nederlandse populatie, en ook meer contacten met de zorgverleners. Uit het dossiergedeelte blijkt echter dat de contactfrequenties met de zorgverleners van asielzoekers en vluchtelingen vergelijkbaar zijn met cijfers voor de Nederlandse populatie. Dit verschil tussen de resultaten van beide onderzoeksgedeeltes zou aan de gekozen methodes kunnen liggen.

Conclusie

Wanneer gekeken wordt naar het gehele onderzoek, dan zijn de resultaten wat betreft gezondheidsproblemen overeenkomstig de verwachtingen: asielzoekers rapporteren in het

algemeen meer klachten dan vluchtelingen, en zij hebben meer psychische klachten. Verder lijkt de toegankelijkheid van de zorg voor beide groepen hetzelfde te zijn, ondanks dat het zorgsysteem anders georganiseerd is. Wel vangt de verpleegkundige vóór de huisarts de meerderheid van de contacten bij de asielzoekers op zodat het aantal contacten met de huisarts lager ligt. Naar verwachting zullen de onderzoeksresultaten ook gelden voor andere groepen asielzoekers en vluchtelingen, al zullen er tussen verschillende etnische groepen specifieke verschillen bestaan, zoals die ook binnen deze studie gevonden zijn. Specifieke culturele verschillen zoals het uiten van klachten en de wijze waarop zorgverleners daarop alert gemaakt kunnen worden, vragen verder onderzoek. Dit geldt eveneens voor de verwijspatronen van verpleegkundige tot in de tweede lijn, zeker op het gebied van de psychische klachten en diagnoses. Of de toegeleiding van asielzoekers naar de huisarts door de MOA-praktijkverpleegkundige juist leidt tot een efficiënter gebruik van de huisartsenzorg of leidt tot een extra drempel en dus ondergebruik van de huisartsenzorg, blijft ook in dit onderzoek nog onduidelijk.

Summary

Context

Although asylum seekers have been coming to the Netherlands since the 1980s, very few epidemiological studies have focused on this group of inhabitants, or on the refugees who have resettled in this country.

Objectives

This study was designed to estimate the prevalence rates of health problems (both physical and mental) and use of health care services, and to identify risk factors. Furthermore, the goal was to assess the extent to which the health care services are aware of self-reported health problems of asylum seekers and refugees.

Methods

A population-based study was conducted in the Netherlands from June 2003 to April 2004 among adult refugees and asylum seekers from Afghanistan, Iran and Somalia, as these are among the largest groups within the reception centres and municipalities in the Netherlands.

A total of 178 refugees and 232 asylum seekers (response rates of 59% and 89%), living in 3 municipalities and 14 reception centres, participated. A structured-questionnaire was used, that was translated into Dari, Pashtu, Farsi and Somali, back-translated and checked. Questions were included on general, physical and mental health, use of health care services, demographics (e.g. age, gender, length of stay in the Netherlands), traumatic events, post-migration stress and social support. The questionnaire was culturally validated by interviews with informants from the three countries. Respondents were interviewed by bilingual interviewers originating from the same countries, who were specifically trained for this purpose. At the end of the interview respondents were asked to authorise the study of their medical records (response rate of 65%). This eventually resulted in a database of 228 complete medical records (135 asylum seekers and 93 refugees).

Interviews

Results

More asylum seekers (59%) than refugees (42%) considered their health to be poor. In both groups, approximately half of the respondents suffered from more than one chronic condition. More asylum seekers than refugees had symptoms of post-traumatic stress disorder (PTSD) (28% and 11%) and depression/anxiety (68% and 39%). Respondents from Afghanistan, and from Iran in particular, had a higher risk for PTSD and depression/anxiety. Female gender was associated with chronic conditions, PTSD and depression/anxiety, and higher age with poor general health and chronic conditions. A greater number of traumatic events was associated with all health outcomes, and more post-migration stress and less social support was associated with PTSD and depression/anxiety symptoms.

There were no differences between refugees and asylum seekers in the use of health care services. Respondents from Somalia reported less contacts with a general practitioner, less use of mental health services and less medication use than respondents from Afghanistan and Iran. Both female gender and older age were related to more contacts with a general practitioner and a medical specialist, and with higher medication use. Poor general health was related to more contacts with a medical specialist and mental health services, and with higher medication use.

Conclusions

Both physical and mental health problems are highly prevalent among refugees and asylum seekers in the Netherlands. Among asylum seekers the prevalence rates are higher for most health problems, but in general their utilisation of health care services is equal to that of the refugees. Both the Community Health Services for Asylum Seekers (MOA) and the general health services in the municipalities must be aware of the problems and be able to offer the necessary prevention and treatment facilities.

Medical records

Results

Refugees and asylum seekers showed differences in their reasons for encounters with the different health care providers. Asylum seekers presented twice as much psychological and social complaints (13.5% versus 5.8%), and refugees more respiratory (12.8% versus 10.3%), musculoskeletal (23.6% versus 18.5%) and urological problems (5% versus 2%). Part of the difference between groups could be explained by the age difference between both groups, the difference in length of stay in the Netherlands and the difference in residence status situation. Unexplained differences between ethnic groups were also found.

Refugees had a use of the health care system similar to that of the Dutch population, and asylum seekers had in total more contacts (11 per patient per year) with all caregivers (MOA-nurse and general practitioner) than refugees with the general practice (6 per

patient per year). Compared to the general population, asylum seekers were almost three times as much referred to another health care provider by their general practitioner.

Self-reported health problems are equally known by the health system for both groups (about two thirds of the self-reported problems are registered in the medical records of the patient).

Conclusions

Additional research is necessary in order to focus on the main differences in health issues between ethnic groups, taking cultural and epidemiological variables into account. Likewise, the assumption of an equal quality of care for asylum seekers and Dutch residents is not yet confirmed nor infirmed by the present results, and further research on this aspect remains relevant in order to assess the efficiency of the system for asylum seekers. The present results and database form an interesting starting point for further research in those directions.

Interviews and medical records: similarities and differences

About two thirds of the most important health problems as reported by the asylum seekers and refugees in the interviews were registered in the medical records of the respondents.

Both the results of the interviews and the results of the medical records study showed that asylum seekers have more psychological complaints than refugees. Furthermore, respondents from Somalia reported less psychological complaints than those from Afghanistan and Iran. Although the prevalence of psychological complaints was high, the use of mental health services, as reported in the interviews and also found in the medical records, was rather low.

The medical records study showed that asylum seekers had more contact with the primary health care, but also that this was mainly due to the fact that asylum seekers first have to go to the MOA-nurse for their complaints and many of the complaints are then referred to the general practitioner. In the interviews asylum seekers and refugees reported an equal number of contacts with a general practitioner. It is probably often unclear for asylum seekers who they have contact with for their complaints; the MOA-nurse or the general practitioner.

The interview results show that asylum seekers and refugees report more health problems than the Dutch population, as well as more contacts with the health care providers. On the contrary, medical records analyses show that contacts with health care providers are not higher for asylum seekers and refugees than for the Dutch population. This difference could result from the chosen methods for both studies.

Conclusions

Regarding health problems, the results of the study are as expected: in general, asylum seekers report more problems with their health than refugees, especially psychological complaints. Furthermore, asylum seekers and refugees seem to have equal access to the health care facilities in general, although the access to the Dutch health care system is organised in a different way. In the reception centres, the MOA-nurse has the most contacts with patients, and the general practitioner has less contacts with asylum seekers. It is expected that the research results can be generalized to other groups of asylum seekers and refugees in the Netherlands, although some specific differences between ethnic groups may exist, as found in this study. Specific cultural differences, as the meaning of complaints, and how to make health care providers aware of the possibility of different interpretations of the same complaint according to cultures, need further research. This is also true for the patterns of referral, especially for mental health complaints and problems. It remains to be studied if the use of a MOA-nurse as first contact person in the access to the general practitioner makes health care for asylum seekers more efficient, or results in an extra threshold for GP care.

1 Health and health care utilisation among asylum seekers and refugees in the Netherlands: design of a study

Abstract

Background This article discusses the design of a study on the prevalence of health problems (both physical and mental) and the utilisation of health care services among asylum seekers and refugees in the Netherlands, including factors that may be related to their health and their utilisation of these services.

Methods The study will include random samples of adult asylum seekers and refugees from Afghanistan, Iran and Somali (total planned sample of 600), as these are among the largest groups within the reception centres and municipalities in the Netherlands.

The questionnaire that will be used will include questions on physical health (chronic and acute diseases and somatisation), mental health (Hopkins Symptoms Checklist-25 and Harvard Trauma Questionnaire), utilisation of health care services, pre- and post-migratory traumatic experiences, life-style, acculturation, social support and socio-demographic background. The questionnaire has gone through a translation process (translation and back-translation, several checks and a pilot-study) and cross-cultural adaptation. Respondents will be interviewed by bilingual and bicultural interviewers who will be specifically trained for this purpose.

This article discusses the selection of the study population, the chosen outcome measures, the translation and cross-cultural adaptation of the measurement instrument, the training of the interviewers and the practical execution of the study. The information provided may be useful for other researchers in this relatively new field of epidemiological research among various groups of asylum seekers and refugees.

Gerritsen AA, Bramsen I, Deville W, van Willigen LH, Hovens JE, van der Ploeg HM. Health and health care utilisation among asylum seekers and refugees in the Netherlands: design of a study. BMC Public Health. 2004;4:7.

Introduction

In the Netherlands, health surveys are frequently conducted to assess the health of the population and the utilisation of health care services.^{1,2} Due to language and cultural problems these surveys often exclude (first generation) immigrants. However, in recent years, much research has focused on the four largest immigrant groups, i.e. people from Surinam, the Netherlands Antilles, Turkey and Morocco.^{1,3} Although refugees have been coming to the Netherlands since the eighties, their numbers were not large enough and their backgrounds were too diverse for them to be the subject of large-scale epidemiological research. However, it is important that research also focuses on these groups, which differ from the four largest immigrant groups because they migrated involuntarily and may have a history of loss and traumatic experiences. A differentiation can be made between refugees who have a residence permit, and asylum seekers who are still in uncertainty of achieving such a status. These two groups may also differ with regard to living arrangements, because most asylum seekers in the Netherlands live in reception centres. Both factors may cause differences in their health status and their utilisation of health care services, and therefore both groups should be studied. In general, the term 'refugees' will be used for both groups throughout the text, and the term 'asylum seekers' will only be used if a distinction between the groups is important.

Early research on refugees focused mainly on those refugees who consulted health care services.⁴ This gave an indication of the kind of problems refugees experience, but not of the prevalence of disorders, because not all refugees have or seek medical care for health problems. Other studies focused specifically on the victims of torture, but again such people are not representative of the refugee population in general.⁵ Most population-based studies focusing on adult refugees living in a Western country report on the prevalence of psychiatric diseases, mainly post-traumatic stress disorder (PTSD), depression and anxiety. There is a huge range in reported prevalence rates, due to the fact that the studies are very heterogeneous with respect to the study population (e.g. selection of the study population, country of origin, duration of residence in the country of resettlement, refugee status) and measurement instruments. For example, the prevalence rates for PTSD range from 4% to 70%, and similar percentages are reported for the prevalence of depression (3% to 88%) and anxiety (2% to 80%) (table 1).

Furthermore, many factors related to the mental health of refugees are reported in the literature cited in table 1: pre- and post-migratory traumatic experiences, proficiency in the language of the country of resettlement, social network, socio-demographic background, including gender, work status, duration of residence in the country of resettlement, and marital status.

Besides studies of the physical conditions detected shortly after the arrival of the refugees (e.g. infectious diseases)³⁰ and studies focusing on the physical sequel of torture,³¹ few studies have investigated physical complaints such as gastrointestinal diseases, musculoskeletal complaints and cardiovascular diseases.^{11,15,20,32,33} Moreover, the utilisation of health care services has not often been addressed in surveys.^{6,20,33,34}

Table 1 Prevalence of PTSD, depression and anxiety in population-based studies on refugees living in a Western country

Ref.no.	PTSD	Depression	Anxiety	Measurement instrument	Study population
6	4%	3%	5%	CIDI	1161 Vietnamese refugees living on average 11 years in Australia
7,8	4% (and 9% just after arrival)	18%	2%	criteria from the DSM-Third Edition (PTSD) and Present State Examination (depression and anxiety)	145 Vietnamese quota refugees interviewed 3 years after resettlement in Norway
9-11	11%	4%		criteria from the DSM-Revised Third Edition	86 Iranian and 70 Turkish asylum seekers (51%) and refugees living in reception centres (62%) in the Netherlands (70% less than 1 year)
12	12%			post-traumatic stress section of the Diagnostic Interview Schedule	223 Cambodian refugees living 3 months to 10 years in New Zealand
13	15%			HTQ	240 refugees, predominantly from former Yugoslavia, interviewed on average 10 months and 3 years after resettlement in Norway
14	18-33%	21%		modified version of the Post-traumatic Symptom Scale (PTSD) and a questionnaire (depression)	206 refugees from Bosnia-Herzegovina living in an asylum centre in Sweden
15	22%			HTQ	157 refugees from Kosovo living on average 2 years in Canada
16	32%	63%	36%	HTQ (PTSD) en HSCL-25 (depression and anxiety)	54 Somalian asylum seekers (76%) and refugees living in reception centres (65% less than 6 months) in the Netherlands
17	35%	57%		CIDI	51 Afghan refugees living on average 4 years in the Netherlands
18	35%	33%	23%	CIDI (PTSD) and HSCL-25 (depression and anxiety)	40 asylum seekers from 21 countries living on average 3 years in Australia
19	37%			CAPS	86 Iraqi and Kurdish refugees recently resettled in Sweden
20	45%	51%		Diagnostic Interview for Children and Adolescents-revised (PTSD) and National Institute of Mental Health Diagnostic Interview Schedule (depression)	124 Cambodian refugees living on average 8 years in the United States

- table 1 continues -

Ref.no.	PTSD	Depression	Anxiety	Measurement instrument	Study population
21	50%			Structured Clinical Interview for DSM-Fourth Edition	40 refugees from former Yugoslavia living on average 3.5 years in a refugee camp in Italy
22	61%			PDS	129 Kosovar refugees studied immediately upon resettlement in the United States
23	63%			CAPS	126 Bosnian refugees with a permanent residency status living for over 3 years (92%) in Australia
24	65%	44%	34%	PDS (PTSD) and Beck Depression and Anxiety Inventory	842 refugees from Kosovo living in reception centres in the United Kingdom
25	86%	88%	80%	PTSD Checklist based on criteria from the DSM-Revised Third Edition and HSCL-25 (depression and anxiety)	50 Cambodian refugees living on average 5 years in the United States
26	70%			PDS	41 Bosnian refugees living in the United States
27		6% (just after arrival) - 2% (10 years after arrival)		symptom inventory	608 Southeast Asian refugees living in Canada
28		25%	25%	HSCL	180 Somali refugees (96%) and asylum seekers living on average 8 years in the United Kingdom
29		29%	15%	HSCL-25	129 Indochinese refugees living in New Zealand

CIDI = Composite International Diagnostic Interview; DSM = Diagnostic and Statistical Manual of Mental Disorders; PTSD = Post-Traumatic Stress Disorder; HTQ = Harvard Trauma Questionnaire; HSCL = Hopkins Symptom Check List; CAPS = Clinician-Administered PTSD Scale; PDS = Posttraumatic Diagnostic Scale

Taking all this into account, it was decided to conduct a large-scale epidemiological study on the prevalence of health problems among both refugees and asylum seekers, including not only mental but also physical health problems, and their utilisation of health care services. In addition it is the intention to study several factors (traumatic experiences, life-style, acculturation, social support, socio-demographic background) that may be related to the health problems and the utilisation of these services. Unlike many of the other studies, the study will include refugees and asylum seekers from three different countries of origin. The aim of the study is to provide some basic epidemiological data on the health and health care utilisation among this population, and thereby improve the health care that is provided (in the Netherlands) for asylum seekers and refugees.

This article discusses the design of the study: selection of the study population, the chosen outcome measures, cross-cultural adaptation of the measurement instrument, training of the interviewers and the practical execution of the study. Papers reporting the study results can not elaborate much on these issues, although this information may be useful for other researchers in this relatively new field of research, in which problems related to differences in the language and background of the population have to be faced. Describing the design of this study may also help to enhance the comparability of future studies (e.g. regarding the choice of measurement instruments). Furthermore, it permits critical assessment of the methodological quality of the study, irrespective of the outcomes. This is important, because a study is more likely to be examined for methodological limitations if the results differ from what was expected than when the results are in line with the expectations.

The study design was approved by the Medical Ethics Committee of the VU University Medical Centre in Amsterdam.

Methods

Study population

On 1st September 2002, the top 10 nationalities of residents in the Dutch reception centres were: Iraq (8,445 people), Afghanistan (7,105), Angola (6,140), former Yugoslavia (4,806), Iran (4,509), Azerbaijan (4,398), Somalia (3,888), Sierra Leone (3,300), Sudan (3,176) and Syria (2,391).³⁵ Because it was also the intention to study refugees the number of first generation immigrants originating from these countries and living in the Netherlands on 1st January 2002, was also recorded. The number of immigrants from five countries was large enough to consider these nationalities for inclusion in the study: former Yugoslavia (55,760 people), Iraq (35,918), Afghanistan (28,448), Iran (22,998) and Somalia (21,071).³⁶ For practical reasons (e.g. translation of the study materials, recruitment of interviewers) former Yugoslavia was not chosen, because this group includes several smaller groups with different ethnic backgrounds and different languages. Furthermore, Iraq was not chosen, because at that time a study on the mental health of asylum seekers from Iraq was being conducted by the Drenthe Mental Health Care Services in the Netherlands. Therefore, people from Afghanistan, Iran and Somalia will be included in this study. To make it possible to compare prevalence rates within sub-groups of people, the plan is to include 100 asylum seekers and 100 refugees per country of origin, resulting in a total study population of 600 people. To achieve a representative sample of all asylum seekers and refugees from these three countries, the sampling procedures described below were applied.

Sample of asylum seekers

Based on the mean number of asylum seekers from Afghanistan, Iran and Somalia per reception centre it was decided to include 15 centres in the study. For practical reasons (e.g. travel distances for the interviewers) these reception centres were randomly selected from the 46 centres located in the central region of the Netherlands. One centre was excluded from the sample because it was not considered to be representative. The Community Health Services for Asylum Seekers (MOA) had undergone radical changes

due to some recent incidents concerning the health of asylum seekers living in the centre. The central administration of the Dutch Agency for the Reception of Asylum Seekers (COA) was asked to provide the contact details (names, addresses, dates of birth and gender) of all people originating from Afghanistan, Iran and Somalia who were living in the 14 centres. To be eligible for inclusion these people must be 18 years of age or older. Most of them will actually be staying in one of the reception centres concerned, but some might be living in a (neighbouring) municipality. Although most of them will not be in possession of a residence permit, some might be, but are still living in a centre because of lack of alternative accommodation. Because members of the same family may have similar values for some of the outcomes studied (e.g. traumatic experiences, social support), only one person per family was randomly selected for inclusion in the study on the basis of a registration code. This resulted in a sample of at least 157 people per country of origin from all 14 centres together.

Sample of refugees

Per country a list was made of municipalities in which at least 200 first generation immigrants originating from that country were living.³⁶ At that time, a study on the social status and utilisation of welfare facilities among refugees was being conducted by the Institute for Sociological and Economic Research at the Erasmus University Rotterdam - which also included refugees from Afghanistan, Iran and Somalia - so it was decided not to approach the same municipalities. Furthermore, municipalities were only taken into consideration if they agreed to provide the names and addresses of the people in the sample, so that they could be contacted directly. Some of the municipalities wanted to contact these people themselves and ask for permission to pass on their contact details, but it was thought that this would lower the response rate. Three municipalities (Leiden, Zaanstad and Arnhem) were finally approached and asked to provide a random sample from the population register of 100-150 people per country of origin. Criteria for inclusion in the sample were: 18 years of age or older; born in Afghanistan, Iran or Somalia (or if the country of birth was not recorded, at least one parent born in one of these countries); in possession of a residence permit or the Dutch nationality. Finally, a random selection was made of one person per address for inclusion in the study, leaving at least 62 people per country of origin in the sample from each municipality.

Outcome measures

A recently conducted systematic review described the cross-cultural validity and reliability of instruments measuring refugee trauma and health status.³⁷ The present study included some of the instruments that had either been developed for, or adapted and tested in refugee research (e.g. Harvard Trauma Questionnaire [HTQ], Hopkins Symptom Check List-25 [HSCL-25], 90-item Symptom Check List [SCL-90]). However, the validity and reliability of these instruments has not been tested in the population included in the present study. Furthermore, no cut-off scores for symptomatic status have been established for this population. This should be taken into account when interpreting the results of this study. If no instruments that had been used in refugee research were available questions used in health surveys among the Dutch general or immigrant population were used. However, the cross-cultural validity and reliability of these questions has not been tested.

A draft version of the questionnaire was discussed with key-informants (males and females) who were refugees from Afghanistan (3), Iran (5) and Somalia (4). They were contacted with the help of refugee organisations and via the snowball method, and had different professional backgrounds (e.g. anthropologist, physician, social worker). They were asked to give their opinion about the items on the questionnaire and the phrasing of the questions. This version of the questionnaire was also reviewed by more than 20 professionals working with refugees (e.g. anthropologists, epidemiologists, physicians, psychologists). The questionnaire was modified with the help of the comments on the draft version. Questions related to sexual behaviour were omitted (e.g. sexually transmitted diseases, female genital mutilation), because this subject was considered to be taboo, and the answers were expected to be unreliable. The same was thought to apply to questions concerning the use of drugs. A qualitative study design might be more suitable to investigate these issues.^{38,39} Certain background variables were also omitted (e.g. reason for requesting asylum in the Netherlands, ethnic origin), because these questions might remind the respondents too much about the Immigration and Naturalisation Service (IND) interrogations, and might therefore have a negative influence on the respondents' confidence in the interviewer. Furthermore, specific response items were added for some questions, because of the cultural or refugee background of the respondents: e.g. traditional healers and medications, and specific daily activities of asylum seekers living in reception centres (because they are not allowed to work, they spent a lot of time watching television, participating in sports, etc.). The final version of the questionnaire included the outcome measures described below.

Health

General

The current health status of respondents was measured according to the general health question on the 36-item Short-Form.⁴⁰ The response options ranged from '5 = excellent' to '1 = poor'. This item has been used in health surveys among the general and immigrant population of the Netherlands.^{1,2}

Furthermore, respondents were asked to mention their main health complaints and what they thought to be the cause of these complaints (e.g. physical or mental problem, the situation in the country of origin or in the Netherlands).

Physical health

The respondents were asked to indicate for 28 chronic conditions whether or not they had had this condition in the previous 12 months. If so, they were asked if they had visited or been treated by a doctor for this condition during this period. The list of chronic conditions included the items in the national health surveys (e.g. cardiovascular diseases; pulmonary diseases). Furthermore, some items from the screening list used by the MOA were added (e.g. tuberculosis; hepatitis). In addition, seven acute diseases (e.g. flu; bladder infection) from the same surveys were included. Respondents were asked to indicate whether or not they had had these diseases in the previous two months and, if so, whether they had visited a general practitioner for their complaints. Respondents could also mention a chronic or acute disease that was not included in the list.

Possible somatisation was measured according to the somatic complaints sub-scale of the SCL-90-Revised.⁴¹ This scale consists of 12 items (e.g. pain in the heart or chest; pain in

the lower back), which are complaints that may not be explained by the presence of physical illness, but might be caused by severe stress. Items could be scored on a 5-point scale, ranging from '1 = not at all' to '5 = extremely' bothered by the complaint in the previous week. The sum of all responses divided by the number of items answered produces a mean score. Seven groups are used to classify these mean scores (from 'very high' to 'very low'). This somatisation sub-scale has been used in a population survey of the psychosocial adjustment of Hmong refugees living in the United States.⁴²

Mental health

The HSCL-25 was used to measure symptoms of anxiety (10 items, e.g. suddenly scared for no reason; feeling fearful) and depression (15 items, e.g. blaming yourself for things; crying easily).⁴³ Respondents were asked to indicate the extent to which they were bothered by each symptom in the previous week, ranging from '1 = not at all' to '4 = extremely'. Individuals with a mean score for anxiety and/or depression and/or the total list of symptoms >1.75 are considered to be symptomatic. The scale has been used in several refugee studies.^{11,13,16,18,25,29} Because an earlier study on symptoms of depressive illness concluded that the majority of Afghan patients will express death wishes rather than suicidal thoughts, this item was added to the list.⁴⁴ Two items describing typical syndromes of distress related to depression and anxiety in the Iranian culture were also added to the Farsi-version of the questionnaire: *nârâhati-e qalb* (distress of the heart) and *nârâhati-e a'sâb* (distress of the nerves).⁴⁵

Part IV of the HTQ was used to measure PTSD.⁴⁶ It includes 30 symptoms, the first 16 of which were derived from the Diagnostic and Statistical Manual of Mental Disorders-Revised Third Edition (DSM-III-R) criteria for PTSD (e.g. feeling as though the event is happening again; recurrent nightmares). The other 14 items describe symptoms related to the traumatic life events of (Indochinese) refugees (e.g. difficulty in performing work or daily tasks; blaming yourself for things that have happened). The format of the response options is comparable to that of the HSCL-25. Individuals with a mean score on the 16 PTSD symptoms and/or on the total list of 30 symptoms ≥ 2.5 are considered to be symptomatic for PTSD. This scale has also been used in many studies on refugees.^{13,15,16} An attempt was made to identify culture-specific symptoms of anxiety, depression and trauma by giving respondents the opportunity to mention symptoms that were not included in the list.

Utilisation of health care services

The following data were recorded:

- 1 Frequency of contact with a general practitioner, outpatient medical specialist, dentist, physiotherapist, nurse and social-physician of the MOA, in the previous two months.
- 2 Hospital admissions, contacts with mental health services (e.g. psychologist, psychiatrist), contacts with alternative practitioners (e.g. acupuncturist, homoeopathist), in the previous year.
- 3 Use of health care services in the country of origin or other foreign countries in the previous year, and the reason for not using the Dutch health care services.
- 4 Use of (un)prescribed medication in the previous 14 days and type of medication.

Some of these measures are also used in the national health surveys. Furthermore, respondents were asked about: who they would turn to with their health problems, their expectations with regard to the Dutch health care providers, their opinion on the Dutch health care system (ranging from '5 = excellent' to '1 = poor') and the reason for this opinion, and suggestions for possible improvements in this system.

Traumatic experiences

First the respondents were asked about possible stressful experiences they had had in the Netherlands. The checklist included 18 problems often reported by refugees in research on post-migratory stressors (e.g. delays in the application for a residence permit; loneliness).^{11,18,19} They were asked to indicate the extent to which any of the items had bothered them in the previous month ('1 = not at all' to '4 = extremely'). Furthermore, they were given the opportunity to mention items that were not included in the list.

Other traumatic experiences were assessed with part I of the HTQ, which includes 17 events (e.g. lack of food and water; being close to death).⁴⁶ There were four possible responses for each event (experienced, witnessed, heard about it or no) and respondents were asked to check all that were applicable. Responses are summed and divided by the number of items answered to generate two scores: total number of events (sum of all items for which the response differs from 'no') and total number of events experienced (sum of all items with a positive response to 'experienced'). However, the score for 'total number of events' often approached the maximum score of 17, due to the fact that almost everybody at least answered 'heard about it' to all items. Therefore, the response scale was replaced with a simple yes/no (experienced) option in later versions, because empirical evidence revealed the primary importance of the number of experienced events. Because being a witness can also be an important traumatic event, it was decided to use the earlier response scale, but to eliminate the response 'heard about'. However, this should still make it possible to compare the results of the study with those of other studies which used either the earlier or the later version.^{6,16,18,47} Furthermore, the list was extended to include 15 other traumatic events, specially relevant to people from Afghanistan, Iran and Somalia, which were selected from Amnesty International Annual Reports (1975-2002) (e.g. rocket attacks, bombardments; confiscation or destruction of houses, crops, water supply). Also included was part III of the HTQ focussing on four traumatic events (yes/no experienced) that may involve head injury (e.g. drowning, suffocation).

Finally, the respondents were asked to indicate those events that they considered to be the most traumatic events that they had experienced in the Netherlands, in their country of origin or during their flight, and in their whole life.

Life-style

Different aspects of life-style were measured as follows:

- 1 Body mass index (BMI) was calculated by dividing self-reported body weight (kg) by height squared (m^2). Overweight is defined as a BMI of 25-30 kg/m^2 and obesity as a BMI of 30 kg/m^2 or more.
- 2 Physical activity was assessed by asking respondents how many days a week they spent at least half an hour on physical activities in relation to work, school, household

and leisure. According to Dutch standards for adults, this should be at least five days a week.

- 3 Smoking behaviour was assessed by asking respondents whether they smoked, and if so, how much tobacco they smoked. Heavy smoking is defined as smoking 20 or more cigarettes a day.
- 4 Alcohol consumption was assessed by asking respondents whether they drank alcohol, and if so, how often they had six or more alcoholic drinks on one occasion. Heavy drinking is defined as having six or more alcoholic drinks at least once a week. All these life-style measures are used in the national health surveys.

Acculturation

To measure the level of self-rated acculturation of the respondents a list of questions was compiled, including items that had already been used in other studies.^{1,48} No established acculturation measure was used, because most of the scales are developed for specific groups of immigrants, and take into account the history and conditions of their migration. As a consequence, these scales include items that are not applicable to refugees from Afghanistan, Iran and Somalia. The nine questions in the list focused on: self-reported proficiency (understanding, speaking, reading, writing) in the native language, Dutch and English ('not at all', 'a little', 'sufficient', 'good'); use of language in various situations; food preferences; feeling at home in the Netherlands; which to return home; and ethnic identity (e.g. 'mainly Dutch', 'both Dutch and Afghan').

Social support

With regard to social support, two issues were taken into consideration: the frequency of contacts with people who may provide social support, and the perceived amount of support received. To assess the first aspect, respondents were asked about the contact frequency ('often', 'sometimes', 'never') with other people (e.g. family or friends, both in the Netherlands or elsewhere) and with whom they had the most frequent contact. To measure the perceived amount of support received, the established social support measures were not considered to be useful, because they do not take into account the particular life situation of refugees and asylum seekers (e.g. separated from family and friends, living in a reception centre). Therefore, four items were selected from the Social Support Scale (SOS)⁴⁹ (e.g. If I have problems there are people I can turn to) and two items from the UCLA Loneliness scale⁵⁰ (e.g. There are people who really understand me). Respondents were asked to indicate whether or not these statements applied to them ('yes', 'no') in the previous month.

Socio-demographic background

The following socio-demographic variables were recorded: gender; age; country of origin; residence permit ('no [application rejected or application under review]', 'temporary', 'permanent' or 'Dutch nationality'); period of residence in the Netherlands and, if applicable, time since obtaining a residence permit (to calculate the duration of the asylum procedure); highest level of education completed; marital status; number and age of children; whereabouts of spouse and any children; main daily activities; and religion.

Questionnaire translation

Taking into account the available resources (time and finance), published guidelines were adhered to as possible for the cross-cultural adaptation of the questionnaire.^{51,52} The entire process took approximately five months. The first step was to translate the questionnaire from the original language (Dutch) into the target languages (Dari and Pashto - Afghan languages, Farsi - Iranian language, and Somali), and this was done by experienced translators. Working from the translated version of the questionnaire and totally unaware of the original version, other experienced translators then translated the questionnaire back into the original language. All discrepancies between the original Dutch questionnaire and the back-translated version were recorded by a researcher, who was not familiar with the target languages, and the two translators. These discrepancies were then discussed item-by-item and resolved by consensus. Accordingly, corrections were made, and checked again, which resulted in a second version of the translation. It was found to be important that the researcher made it clear to both translators that discussing discrepancies was in no way meant to judge their work, but to make sure that the translated version was reflecting exactly the same content as the original version.

Because also a Dutch version of the questionnaire was needed, the same translation process was also followed for the HTQ, for which no Dutch translation was available.

In general, it was found that it was possible to translate most items. However, in all languages there were some terms for which no translation was available: for example some chronic diseases (e.g. pulmonary emphysema, slipped disc, angina pectoris), different types of alternative practitioners (e.g. chiropractor, paranormal healer) and the word 'traumatic'. In such cases a description was given and/or the Dutch word was added (between brackets). Furthermore, some phrases were at first translated literally whereas they were meant to be metaphorical (e.g. 'difficulties with breathing' instead of 'shortness of breath'; 'fever or cold' instead of 'hot or cold spells'). Some expressions (e.g. 'feeling on guard', 'my social relationships are superficial') were so difficult to translate that an item with a similar meaning had to be found. In some cases, items had to be substituted by others, because they did not apply to the study population (e.g. 'gardening' was replaced by 'walking' in the question on physical activities, because gardening is not something that asylum seekers do in a reception centre). Finally, there were some difficulties in the translation of large categories of ordinal responses (e.g. the differences between the five response categories of the SCL-90-R).

The experienced translators also translated all other study materials (introduction letter, confidentiality statement, etc.).

Interviewer recruitment and training

Although the questionnaire can be self-administered, it was decided to make use of bilingual interviewers from the three countries of origin. This was expected to result in a higher response rate, because many respondents might not be familiar with surveys, and some may have difficulties in reading and writing. Furthermore, interviewers could explain the purpose of the study in the respondent's own language and (cultural and refugee) context, thus minimising the risk of misunderstanding or miscommunication.

An advertisement to recruit interviewers was distributed twice among refugee organisations, employment agencies (for refugees), key-informants, professionals working with refugees, and translators and over a 100 written applications were received.

The applicants were screened on interview experience and/or relevant education and/or working experience with refugees, and approximately 65 eligible people were invited for a personal interview. Those with good communication and social skills were selected to participate in a two-day training session. A total of 33 interviewers were trained (9 Afghan - 5 females and 4 males, 15 Iranian - 11 females and 4 males and 9 Somalian - 4 females and 5 males). Most of the interviewers were students studying (para)medical or social subjects. Before the training all participants received a manual in which the content of the interview training was described. The first day of the training included an introduction to the study (background information, purpose, design), general interviewing skills and techniques (e.g. types of questions; adherence to question sequence and wording), and an explanation of the meaning of all items and response options on the questionnaire, which took place while the interview was being practised in the group. There was some role-playing in which specific situations and problems that interviewers could encounter in actual interviews were simulated (e.g. how to keep the respondent 'on track' when he or she wanders off the subject; how to deal with a respondent who is becoming emotional). On the second day the participants practised the interview in pairs in their own language. Furthermore, they practised contact procedures, introducing and ending the interview (including answering frequently asked questions and reacting to typical objections from respondents with regard to co-operation). After completing the training the interviewers could start contacting the first set of five respondents. After each set of interviews, written feedback was given to the interviewers with regard to the quality of the interviews. A research assistant also has regular contact by phone and (e-)mail with the interviewers to monitor their progress and discuss any problems that may arise.

During the first training sessions, considerable time was spent discussing the quality of the translation of the questionnaire. Several changes were suggested to the translators, which resulted in a third version. After that training session the questionnaire and the interview procedures were pre-tested. Interviewers were instructed to record any difficulties they encountered and, for example, the time they needed to complete the interview. These difficulties were discussed during an afternoon session. As a result of the pilot study, some minor changes were made in the translation of the questionnaire. In total, 12 respondents were contacted in a reception centre, which was not included in the main study. Of these, 9 were interviewed and the other 3 were unwilling to participate for various reasons. In the three municipalities 18 respondents were contacted, only 6 of whom were interviewed. The main reasons for not interviewing a respondent were: the respondent was not living at the given address; the respondent had not come to the Netherlands as a refugee; other reasons for not wanting to participate in the study.

Procedures

Persons selected for inclusion in the study are sent a letter, both in Dutch and in the language(s) of their country of origin, informing them about the study and announcing that an interviewer will contact them for an interview. If possible respondents will be contacted by phone, otherwise a visit will be paid to the respondent's house or room in the reception centre. If the respondent is not at home a note is left with contact details and the date and time when the interviewer will try to contact the respondent again. The interviewers are instructed to try to contact a respondent three times and all attempts are recorded. If the respondents are contacted they are told about the type of questions they

can expect and about the voluntary nature of participation. Asylum seekers are assured that participation in the study will neither help nor hinder their request for asylum, in an attempt to prevent them from participating for the wrong reasons and exaggerating their problems in order to obtain a residence permit. Reasons for not completing an interview with a respondent (e.g. the respondent was never at home; the respondent was not interested in participating) are recorded by the interviewers. Respondents who are willing to participate in the study are given a statement in which the researcher and the interviewer guarantee, among other things, the strict confidentiality of responses and the anonymous reporting of the data. The reason why the respondents are not asked to sign an informed consent statement is that this may remind them of earlier confrontations with authorities. An attempt is made to have male interviewers for male respondents, and female interviewers for female respondents, and the interviews are held either in Dutch or in the respondent's native language. The interviews are estimated to take an average of 90 minutes. At the end of each interview the respondents are given the opportunity to ask questions and informed that a psychologist or physician with experience on PTSD is available if they wish to talk about any distressing feelings evoked by the interview. This service is also available for the interviewers, because they might find it difficult to listen to stories from the respondents, especially if they have experienced similar events themselves. The respondents are also asked to give written permission to the researchers to review their medical records (of the MOA and/or their general practitioner) and those of one of their children under the age of 18 (if applicable). In the second part of the study, which is conducted by the Netherlands Institute for Health Services Research (NIVEL) in Utrecht, the information on health problems and the utilisation of health care services from these records will be compared with the self-reported data obtained from the interviews. Finally, all respondents receive a financial incentive (10 euros).

Discussion

When conducting a population-based study among asylum seekers and refugees it is important that a representative sample is included. We plan to achieve this by using random sampling procedures for retrieving contact details of potential respondents and by taking various measures to minimise non-response: contacting respondents both by letter and in person, trying to reach a respondent several times, using bilingual and bicultural interviewers who can explain the purpose of the study and the questionnaire in the respondent's own language and cultural and refugee context, using an oral informed consent procedure, and giving a financial incentive.

When choosing the methods to obtain data, measurement instruments that have been found to be valid and reliable in the cultures included in the study, or at least in other refugee populations, should first be considered. If the cross-cultural validity and reliability of the instruments is unknown, this should be taken into account when interpreting the study results. Cross-cultural adaptation of the chosen measurement instruments is a prerequisite if this has not already taken place; translation and back-translation only is not sufficient. In this study, certain checks were included, e.g. the interview training and the pilot-study, after which several amendments were made in the translation. Furthermore, based on the available literature on expressions of symptoms in

various cultures, key-informants and professionals, some items were omitted from the questionnaire while certain specific questions and response options were added.

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2 Physical and mental health of Afghan, Iranian and Somali asylum seekers and refugees living in the Netherlands

Abstract

Background Although asylum seekers have been coming to the Netherlands since the 1980s, very few epidemiological studies have focused on this group of inhabitants, or on the refugees who have resettled in this country. The objective of the study is to estimate the prevalence rates of physical and mental health problems and to identify risk factors for these complaints.

Methods A population-based study was conducted in the Netherlands from June 2003 to April 2004 among adult refugees and asylum seekers from Afghanistan, Iran and Somalia. A total of 178 refugees and 232 asylum seekers (response rates of 59% and 89%), living in 3 municipalities and 14 reception centres, participated. The main outcome measures were: General and physical health, measured with the Short Form-36 and a list of 19 chronic conditions, respectively; symptoms of post-traumatic stress disorder (PTSD), depression and anxiety, measured with the Harvard Trauma Questionnaire and the Hopkins Symptoms Checklist-25.

Results More asylum seekers (59.1%) than refugees (42.0%) considered their health to be poor ($p=.001$). In both groups, approximately half of the respondents suffered from more than one chronic condition. More asylum seekers than refugees had symptoms of PTSD (28.1% and 10.6%; $p=.000$) and depression/anxiety (68.1% and 39.4%; $p=.000$). Respondents from Afghanistan, and from Iran in particular, had a higher risk for PTSD and depression/anxiety. Female gender was associated with chronic conditions, PTSD and depression/anxiety, and higher age with poor general health and chronic conditions. A greater number of traumatic events was associated with all health outcomes, and more post-migration stress and less social support was associated with PTSD and depression/anxiety symptoms.

Conclusion Both physical and mental health problems are highly prevalent among refugees and asylum seekers in the Netherlands. Although higher prevalence rates for most health outcomes were found among asylum seekers, both the specific health services for asylum seekers and the general health services in the municipalities must be aware of these problems.

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Introduction

Although asylum seekers have been coming to the Netherlands since the 1980s, very few epidemiological studies have focused on this group of inhabitants, or on the refugees who have resettled in this country.¹⁻⁴ Many population-based studies among adult refugees and asylum seekers living in Western countries report on the prevalence of mental health problems, which mainly concern symptoms of post-traumatic stress disorder (PTSD), depression and anxiety,⁵ but only a few have investigated general health status and/or physical complaints.^{3,4,6-10} Most studies were based on relatively small sample sizes, and included people from one country of origin only. Furthermore, the majority of studies focused either on refugees or on asylum seekers. However, in European countries a differentiation can be made between refugees who have obtained a residence permit, and asylum seekers who are still in the process of achieving such status. It would be interesting to compare the two groups, because they differ in many aspects. The residence permit gives refugees the opportunity to resettle in the Netherlands. Furthermore, they have already been living in the country for several years, they may have found a job and built up a social network. In contrast, asylum seekers are uncertain about obtaining a residence permit, and therefore their whole future is uncertain. They have just arrived in the Netherlands, have a recent history of traumatic experiences, are living in reception centres, and are not allowed to work. A large-scale population-based study was therefore conducted in the Netherlands among adult refugees and asylum seekers from Afghanistan, Iran and Somalia to estimate the prevalence rates of physical and mental health problems and to identify risk factors for these complaints.

Methods

An extensive description of the methods, including the selection of the study population and ethnic groups, the chosen outcome measures, the translation and cross-cultural adaptation of the measurement instruments, the training of the interviewers and the practical execution of the study, can be found elsewhere.⁵

Study population

Asylum seekers were approached in 14 randomly selected reception centres in the Netherlands. Random samples of refugees were obtained from the population registers of three municipalities (Arnhem, Leiden and Zaanstad), including adults born in Afghanistan, Iran or Somalia (or if the country of birth was not recorded, at least one parent born in one of these countries). In groups a random selection was made of one person per family/address for inclusion in the study. The plan was to include 100 refugees and 100 asylum seekers per country of origin, to make it possible to compare prevalence rates within sub-groups. Those who were selected for inclusion in the study were first sent a letter, after which they were contacted by one of the 33 specifically trained bilingual interviewers from the three countries of origin. Informed consent was obtained verbally from all respondents and the study protocol was approved by the Medical Ethics Committee of the VU University Medical Centre in Amsterdam.

Health outcomes

The current health status of the respondents was measured according to the general health question of the Short Form-36 (SF-36).¹¹ For the logistic regression analyses the response options were dichotomized into good (excellent, very good, good) and poor (fair, poor). Physical health was measured according to a list of 19 chronic conditions, and the respondents were asked to indicate whether or not they had had this condition in the previous 12 months. Nine conditions from the screening list used by the Community Health Services for Asylum Seekers were added to the original list. A sum-score was calculated, based only on the 19 items from the original list, to make the results comparable with data from a health survey among the general and immigrant population of the Netherlands.¹² For further analyses, the sum-score (range 0-19) was dichotomized into '0 or 1' versus 'more than 1' chronic condition. The score was not dichotomized into '0' versus '1 or more', because over two thirds of the respondents had at least one chronic condition. The Harvard Trauma Questionnaire (HTQ) was used to measure symptoms of PTSD.¹³ It includes 30 symptoms, the first 16 of which were derived from the DSM-IV criteria for PTSD, and the other 14 describe symptoms related to the traumatic life events of Indochinese refugees. The respondents were asked to indicate the extent to which they were bothered by each symptom in the previous week, ranging from '1 = not at all' to '4 = extremely'. Individuals with a mean score of ≥ 2.5 on the 16 PTSD symptoms were considered to be symptomatic. As the other 14 symptoms were less specific for the present study population, they were not included in the mean score, although taking these symptoms into account made little change in the results. The Hopkins Symptoms Checklist-25 (HSCL-25) was used to measure symptoms of depression (15 items) and anxiety (10 items).¹⁴ The format of the response options is comparable to that of the HTQ. Individuals with a mean score of >1.75 for depression and/or anxiety and/or the total list of symptoms were considered to be symptomatic. Because the results of the logistic regression analyses were very similar for the depression and anxiety sub-scales and the total scale, only the latter is presented. Because an earlier study on symptoms of depressive illness concluded that the majority of Afghan patients will express death wishes rather than suicidal thoughts, this item was added to the depression scale.¹⁵ Two items describing typical symptoms of distress related to depression in the Iranian culture were also added to the Farsi-version of the questionnaire: *nârâhati-e qalb* (distress of the heart) and *nârâhati-e a'sâb* (distress of the nerves).¹⁶ An attempt was made to identify culture-specific symptoms of PTSD, depression and anxiety by giving respondents the opportunity to mention symptoms that were not included in the list. Both the HTQ and the HSCL-25 provide outcomes at symptom level and not at diagnosis level.

Potential risk factors

The following socio-demographic variables were recorded: residence permit (yes/no); country of origin; gender; age; marital status and whereabouts of spouse; highest level of education completed; period of residence in the Netherlands. Traumatic experiences were assessed with the HTQ, which includes 17 events, and the total number of events experienced was calculated (range 0-17). For the logistic regression analyses three groups, which were approximately equal in size, were formed: respondents experiencing 0 to 3, 4 to 7, and more than 8 traumatic events. To identify traumatic events that are particularly relevant to people from Afghanistan, Iran and Somalia, 15 events were added

to the list. The respondents were also asked about any possible stressful experiences they had encountered in the Netherlands. The checklist included 18 problems, and the respondents were asked to indicate the extent to which any of these problems had bothered them in the previous month ('1 = not at all' to '4 = extremely'). A mean score was calculated (range 1-4), and for the logistic regression analyses this score was dichotomized into <2.5 and ≥ 2.5 (low and high levels of post-migration stress, respectively), with nearly 20% of the respondents scoring 2.5 or more. The perceived amount of social support received was measured on the basis of 6 statements (e.g. If I have problems there are people I can turn to.), and the respondents were asked to indicate whether or not these statements applied to them (yes/no) in the previous month. A sum-score was calculated, based on the number of positive items (range 0-6), and for the logistic regression analyses this was dichotomized into >3 and ≤ 3 (high and low levels of social support), with well over 30% of the respondents classified as receiving low levels of social support. To estimate the level of acculturation, the respondents were asked if they were feeling at home in the Netherlands. Response items were dichotomized into 'very much/reasonably' and 'a little/not at all'.

Following published guidelines, all questionnaires were cross-culturally adapted, translated into Dari, Pashto, Farsi and Somali, back-translated, and pre-tested.^{17,18}

Statistical analysis

Two-tailed Pearson chi-square and Student's t-tests were used to examine differences in socio-demographic variables and other potential risk factors between refugees and asylum seekers. Differences in health outcomes between the two groups were examined by calculating odds ratios (ORs), 95% confidence intervals (CIs) and P values in univariate logistic regression analyses. To identify factors that were independently associated with the health outcomes, multivariate logistic regression analyses were performed, by entering all variables simultaneously. Adjusted ORs were calculated to control for the presence of all other variables in the model. $P < .05$ was considered to be statistically significant for all analyses, which were performed with SPSS (version 10.1.4).

Results

Characteristics of the study population

During a period of 10 months (June 2003 to April 2004), a total of 479 refugees were approached in the various municipalities. 34 refugees did not fulfil the inclusion criteria (24 were younger than 18) and 144 could not be reached (60% were never at home, 34% were not living at the given address [any longer]). Of the remaining 301 refugees, 123 were not interviewed, mainly because they were too busy or were not interested in participating. This resulted in a response rate of 59% (178/301). Of the 178 respondents, 94% had obtained a residence permit or the Dutch nationality. In the reception centres 391 asylum seekers were approached, 128 of whom could not be reached (66% were no longer living in the centre, 34% were never at home) and one was younger than 18. Of the remaining 262 asylum seekers, only 30 were unwilling to be interviewed, which resulted in a response rate of 89% (232/262). 90% of the 232 respondents did not (yet) have a residence permit.

The number of respondents per country of origin is presented in table 1. The respondents and those who could not be reached did not differ in age or gender. Furthermore, respondents and non-respondents (those reached, but not interviewed) did not differ in age, but in the municipalities men were more likely to be unwilling to participate.

Table 1 Characteristics of the study population

Characteristic	No. (%) of Respondents*			Statistic	P value
	Total (N=410)	Refugees (N=178)	Asylum seekers (N=232)		
Country of origin:					
- Somalia	87 (21.2)	25 (14.0)	62 (26.7)	NA	NA
- Afghanistan	206 (50.2)	90 (50.6)	116 (50.0)		
- Iran	117 (28.5)	63 (35.4)	54 (23.3)		
Gender:					
- male	241 (58.8)	99 (55.6)	142 (61.2)	$\chi^2 = 1.30$.254
- female	169 (41.2)	79 (44.4)	90 (38.8)		
Age, mean (SD), years	37.0 (12.4)	40.3 (13.3)	34.4 (11.1)	t = 4.83	.000
Marital status:					
- divorced	40 (9.8)	25 (14.0)	15 (6.5)	$\chi^2 = 8.20$.042
- never married	100 (24.4)	36 (20.2)	64 (27.7)		
- married or living together	252 (61.6)	110 (61.8)	142 (61.5)		
- widowed	17 (4.2)	7 (3.9)	10 (4.3)		
	(N=409)		(N=231)		
Education:					
- vocational/university	159 (38.8)	92 (51.7)	67 (28.9)	$\chi^2 = 29.13$.000
- secondary	142 (34.6)	59 (33.1)	83 (35.8)		
- none/religious/primary	109 (26.6)	27 (15.2)	82 (35.3)		
Time in the Netherlands, mean (SD), years	5.6 (4.0)	8.8 (4.1)	3.4 (1.6)	t = 16.98	.000
No. of traumatic events, mean (SD), (0-17)	6.1 (3.7) (N=384)	5.3 (3.6) (N=172)	6.8 (3.7) (N=212)	t = -4.19	.000
Mean score for post-migration stressors, mean (SD), (1-4)	2.0 (0.6) (N=381)	1.6 (0.4) (N=162)	2.3 (0.5) (N=119)	t = -5.60	.000
Sum-score for social support, mean (SD), (0-6)	4.1 (1.9) (N=404)	4.8 (1.5) (N=177)	3.6 (2.0) (N=227)	t = 6.78	.000
Feeling at home in the Netherlands:					
- very much/reasonably	249 (60.9)	130 (73.0)	119 (51.5)	$\chi^2 = 19.55$.000
- a little/not at all	160 (39.1) (N=409)	48 (27.0)	112 (48.5) (N=231)		

NA = Not Applicable

* Total number of respondents equals total number per group, unless indicated otherwise.

Table 1 also compares the characteristics of the refugees and the asylum seekers. There were more men than women in both groups. The refugees were somewhat older (except for the Somali refugees who were the same age as the asylum seekers) and had resided in the Netherlands for a longer period. There were differences between the sub-groups: the Iranian refugees had been in the Netherlands for the longest period (mean 12.0 years, SD 4.2), and the Afghan asylum seekers for the shortest period (mean 2.8 years, SD 1.2).

In both groups the majority were married or living together (13% of the entire study population was married, with a spouse living abroad), but the asylum seekers had more often never been married and the refugees had more often been divorced. More than a third of the asylum seekers had completed only primary school or less, whereas half of the refugees had completed higher education. Asylum seekers had experienced more traumatic events and post-migration stress, and Somali and Afghan asylum seekers had experienced the most traumatic events: 7.6 (SD 3.9) and 7.1 (SD 3.5), respectively, out of 17 events. The most frequently experienced traumatic events included 'forced separation from family members' (66.3%) and 'unnatural death of family or friend' (62.3%). Of the items added to the original list 'flight to another part of the country' (75.3%), 'rocket attacks and bombardments' (74.6%) and 'hiding for a long time' (62.3%) were the most common experiences. For the asylum seekers the items on the post-migratory stressors list with the highest score (1-4) were 'dissatisfaction with the delays in the application for a residence permit' (mean 3.5, SD 0.9) and 'uncertainty about obtaining a residence permit' (3.2, 1.1), and for the refugees these were 'homesickness' (2.6, 1.1) and 'worry about family members left behind' (2.3, 1.2). Asylum seekers reported that they experienced less social support, compared to the refugees, and nearly half of the asylum seekers did not feel at home in the Netherlands, compared to only a quarter of the refugees.

Health outcomes

In table 2 the health outcomes of the refugees and the asylum seekers are compared. More asylum seekers than refugees reported a poor general health status, and even 75.9% of the Iranian asylum seekers considered their health to be poor. In contrast, 64.8% of the Afghan refugees considered their health to be good. In both groups approximately half of the respondents suffered from more than one chronic condition, and the mean number of chronic conditions was 2.0 (SD 2.3) for the entire study population (out of the original list of 19 conditions). The most frequently reported chronic conditions were: severe neck/shoulder problems (33.4%), severe/chronic back complaints (32.7%) and migraine/severe headaches (32.6%). Of the items added to the original list 'dental problems' (44.9%) and 'eye problems' (33.1%) were the most common. More asylum seekers than refugees had symptoms of PTSD. The highest rate was found in Iranian asylum seekers (43.4%), and the lowest rate in Afghan and Somali refugees (6.0% and 4.0%, respectively). Depression and anxiety symptoms were more frequently reported among asylum seekers (total scale). Again, the lowest rates were found in Afghan and Somali refugees (28.9% and 16.7%, respectively). With regard to the sub-scales, 29.3% of the refugees and 61.5% of the asylum seekers reported symptoms on the depression scale, and 27.7% and 41.2%, respectively, on the anxiety scale. On the depression scale, the item 'suicidal thoughts' does not have to be replaced by 'death wishes', because the

Afghan respondents scored similarly on both items. However, the item ‘distress of the nerves’ might be added to a Farsi version of the depression scale, because the mean score on this item was high for the Iranian respondents. No other culture-specific symptoms of PTSD, depression or anxiety were identified.

Table 2 Health outcomes

Health outcome	No. (%) of respondents*			Unadjusted OR (95% CI)	P value
	Total (N=410)	Refugees (N=178)	Asylum seekers (N=232)		
poor general health status	211 (51.7) (N=408)	74 (42.0) (N=176)	137 (59.1)	2.00 (1.34-2.96)	.001
>1 chronic condition	183 (47.5) (N= 385)	79 (46.5) (N= 170)	104 (48.4) (N=115)	1.08 (0.72-1.62)	.711
PTSD symptoms	81 (20.6) (N=394)	18 (10.6) (N=170)	63 (28.1) (N=124)	3.30 (1.87-5.84)	.000
depression/anxiety symptoms	210 (55.6) (N=378)	65 (39.4) (N=165)	145 (68.1) (N=213)	3.28 (2.15-5.02)	.000

* Total number of respondents equals total number per group, unless indicated otherwise.

OR = Odds Ratio; CI = Confidence Interval; PTSD = Post-Traumatic Stress Disorder

Factors associated with health outcomes

Table 3 shows the ORs for the associations between the characteristics of the study population and the health outcomes, adjusted for all other variables listed. As marital status and education were not risk factors for any of the health outcomes, the results of these variables are not presented. In this analysis the association between legal status (refugee versus asylum seeker) and PTSD symptoms reached just statistical insignificance. The associations between legal status and poor general health, and legal status and depression/anxiety symptoms remained. Respondents from Afghanistan and, in particular from Iran, had a higher risk of having more than one chronic condition (only Iran), PTSD and depression/anxiety symptoms than respondents from Somalia. Respondents from Iran had a higher risk of poor general health status, PTSD and depression/anxiety symptoms than respondents from Afghanistan. Female gender was associated with chronic conditions, PTSD and depression/anxiety, whereas higher age was associated with poor general health and chronic conditions. A greater number of experienced traumatic events was associated with all health outcomes, although for general health status and chronic conditions this was only true for the group who experienced 8 or more events. More post-migration stress and less social support were both associated with PTSD and depression/anxiety symptoms. Not feeling not at home in the Netherlands was a risk factor for poor general health only.

Table 3 Factors associated with health outcomes

Characteristic		Poor general health status	
		Adjusted OR (95% CI)	P value
Legal status	refugees	1.00	
	asylum seekers	1.85 (1.06-3.25)	.031
Country of origin	Somalia	1.00	
	Afghanistan	0.79 (0.40-1.56)	.497
	Iran	1.66 (0.78-3.54)	.188
Gender	male	1.00	
	female	1.29 (0.76-2.18)	.340
Age, years	18-27	1.00	
	28-37	1.53 (0.77-3.06)	.223
	38-47	3.79 (1.72-8.34)	.001
	≥48	3.50 (1.48-8.26)	.004
No. of traumatic events (0-17)	0-3	1.00	
	4-7	1.59 (0.85-2.96)	.145
	≥8	2.51 (1.32-4.75)	.005
Mean score for post-migration stressors (1-4)	<2,5	1.00	
	≥2,5	1.90 (0.92-3.93)	.085
Sum-score for social support (0-6)	>3	1.00	
	≤3	0.98 (0.54-1.76)	.945
Feeling at home in the Netherlands	very much/ reasonably	1.00	
	a little/not at all	2.31 (1.37-3.91)	.002

OR = Odds Ratio; CI = Confidence Interval; PTSD = Post-Traumatic Stress Disorder

Each variable has been adjusted for all other variables listed in the table and for marital status and education (data not shown).

Discussion

This study showed that more asylum seekers than refugees considered their health to be poor, and had symptoms of PTSD and depression/anxiety. Respondents from Afghanistan and, in particular from Iran, had a higher risk of PTSD and depression/anxiety symptoms. Female gender was associated with chronic conditions, PTSD and depression/anxiety, and higher age with poor general health and chronic conditions. A greater number of traumatic events was associated with all health outcomes, and more post-migration stress and less social support was associated with PTSD and depression/anxiety symptoms.

The described sampling procedures were intended to produce a representative sample of all refugees and asylum seekers from the three countries under study. Furthermore, by trying to contact respondents three times during the day and the evening, it was attempted to reach also the most active (and healthy) refugees and asylum seekers.

>1 Chronic condition		PTSD symptoms		Depression/anxiety symptoms	
Adjusted OR (95% CI)	P value	Adjusted OR (95% CI)	P value	Adjusted OR (95% CI)	P value
1.00		1.00		1.00	
1.25 (0.70-2.22)	.453	2.49 (0.99-6.26)	.052	2.63 (1.41-4.93)	.002
1.00		1.00		1.00	
1.81 (0.87-3.77)	.115	3.08 (1.05-9.07)	.041	2.89 (1.22-6.80)	.015
2.55 (1.13-5.74)	.024	18.46 (5.19-65.64)	.000	11.11 (4.01-30.80)	.000
1.00		1.00		1.00	
3.02 (1.72-5.29)	.000	3.45 (1.53-7.78)	.003	2.42 (1.30-4.52)	.005
1.00		1.00		1.00	
2.14 (1.03-4.42)	.041	1.45 (0.51-4.14)	.493	1.02 (0.45-2.32)	.966
3.03 (1.34-6.85)	.008	2.58 (0.76-8.71)	.127	1.04 (0.43-2.54)	.928
8.47 (3.35-21.40)	.000	1.54 (0.44-5.48)	.501	1.71 (0.65-4.48)	.273
1.00		1.00		1.00	
1.65 (0.86-3.18)	.133	4.82 (1.44-16.11)	.011	4.05 (1.94-8.45)	.000
3.44 (1.72-6.89)	.000	12.18 (3.59-41.34)	.000	6.38 (2.97-13.74)	.000
1.00		1.00		1.00	
1.45 (0.71-2.93)	.306	4.31 (1.93-9.61)	.000	4.48 (1.60-12.56)	.004
1.00		1.00		1.00	
1.04 (0.56-1.92)	.901	3.51 (1.63-7.53)	.001	2.78 (1.36-5.65)	.005
1.00		1.00		1.00	
1.01 (0.59-1.73)	.977	2.04 (0.98-4.29)	.058	1.71 (0.93-3.14)	.083

The validity and reliability of the measurement instruments has not been tested (yet) in the population included in the present study. However, the HTQ and the HSCL-25 have been used in several refugee studies, also applying the described cut-off scores. For the HTQ a scoring algorithm proposed by the Harvard Refugee Trauma Group on the basis of DSM-IV criteria was also used to define respondents with PTSD symptoms, resulting in approximately the same number of cases (77 for the entire study population) as with the cut-off point of 2.5.¹⁹ Furthermore, all measurement instruments have gone through an extensive translation and cross-cultural adaptation process and have been pre-tested.

In the present study, high ORs for PTSD and depression/anxiety symptoms were found in the Iranian group, compared to the Somali and Afghan groups. The question is: are the prevalence rates among Iranians really much higher, or is there another explanation for these results e.g. cultural difference in expressing mental health complaints, measurement instruments less valid for this population? The latter does not seem likely, because these difference in prevalence rates were also found for other health outcomes and indicators for the use of health care services (results described elsewhere).

Even after adjusting for other variables, the asylum seekers were found to have higher prevalence rates than refugees for poor general health, PTSD and depression/anxiety symptoms. It is not expected that many asylum seekers exaggerated their problems, because they were informed that participation in the study would neither help nor hinder

their request for asylum. Bearing that in mind, the higher response rate among asylum seekers will probably be mainly due to the fact that they have more time to participate, compared to the refugees.

Few studies have addressed the longitudinal course of health problems in refugees and asylum seekers.²⁰⁻²⁵ In the present study one might consider the results of the refugee group as a 5.5-year follow-up measurement of the group of asylum seekers. The period of residence in the Netherlands is highly correlated with legal status (if 5 years is taken as cut-off point, 87% of the respondents will be correctly classified as asylum seeker or refugee), and therefore not included in the logistic regression analyses. If legal status is replaced by period of residence in the Netherlands in these analyses, the ORs for both variables are almost equal. This supports the fact that the study might give an impression of the longitudinal course of health problems (decline in PTSD, depression and anxiety symptoms and improvement in general health status), including the influence of aspects such as (un)certainly about residing in the Netherlands, living conditions, acculturation, care as usual, etc. Although one could also argue that the group of asylum seekers differs from the group of refugees, because they left their country of origin in a different time, under different circumstances (which may explain the difference in the level of education and experienced traumatic events between both groups); they arrived in the Netherlands in a different political climate (less tolerance towards asylum seekers and more people are (threatened to be) send back to their country of origin); the group of refugees is a sample from the original group of asylum seekers, because the majority of asylum seekers do not obtain a residence permit.

For PTSD, depression and anxiety symptoms there is a huge range of prevalences reported in population-based studies focusing on adult refugees living in Western countries. The prevalence rates for PTSD symptoms range from 4% to 70%, and similar percentages are reported for the prevalence of symptoms of depression (3% to 88%) and anxiety (2% to 80%).⁵ This is due to the fact that the studies are very heterogeneous with regard to the study population (e.g. selection of the study population, country of origin, duration of residence in the country of resettlement, refugee status) and measurement instruments, which makes comparison of the results of this study with other studies difficult. Only a few studies are found focusing on the same study population and/or using similar instruments for measuring mental health complaints. In a study among 54 Somalian asylum seekers (and refugees) living in reception centres in the Netherlands (65% less than 6 months) prevalence rates of 31.5% were found for PTSD, 63% for depression and 36% for anxiety symptoms, according to the HTQ and the HSCL-25.⁴ In the present study, similar rates for depression (60.0%) and anxiety (28.6%), but a somewhat lower rate for PTSD (19.3%) in Somali asylum seekers. A study conducted in the United Kingdom among 180 Somali refugees (and asylum seekers), who had been living there for an average of 8 years, reported a rate of 25% for depression and/or anxiety symptoms on the HSCL-25, compared with 16.7% among the Somali refugees in the present study.²⁶ In a study among 51 Afghan refugees living for an average of 4 years in the Netherlands the following prevalence rates were found, based on the Composite International Diagnostic Interview: 35% with a diagnosis of PTSD, 57% with a diagnosis of depression and 12% with a diagnosis of anxiety.¹ Similar rates were found in the present study for PTSD (25.4%) and depression (54.7%), but a much higher rate was found for anxiety (39.3%) among Afghan asylum seekers. In a survey conducted in

Afghanistan among 1,011 respondents, prevalences of 20.4% were found for PTSD, 38.5% for depression and 51.8% for anxiety, according to the HTQ and HSCL-25.²⁷ For the entire group of Afghan respondents in the present study similar rates were found for PTSD (17.3%) and depression (36.6%), but a much lower rate for anxiety (32.3%).

Data on general health status and chronic conditions are only available from a health survey among the Dutch general and immigrant population.¹² In the general population, 18% considered their health to be poor, compared with 39% in the immigrant population, which is comparable with the refugee group. In the general population, 30% suffered from more than one chronic condition, and the mean number of chronic conditions was 1.5 (SD 2.0) for the immigrant population. Both of these figures are lower than the results for the entire study population.

Many factors related to the mental health of refugees and asylum seekers are reported in the literature and the majority of studies report a positive association with the number of traumatic events experienced and the level of post-migration stress.^{23,26,28-35} However, there is conflicting evidence with regard to associations with gender, age, marital status and education.^{2,22,23,26,28,29,32,35,36}

Conclusion

Physical as well as mental health problems are highly prevalent among refugees and asylum seekers in the Netherlands. Although among asylum seekers the prevalence rates are higher for most health outcomes, not only the Community Health Services for Asylum Seekers, but also the general health services in the municipalities must be aware of these problems and be able to offer the necessary prevention and treatment facilities. There also seem to be differences between the prevalence rates of people from different countries of origin and this is a result that could be useful for health care providers and preventive public health activities.

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3 Use of health care services by Afghan, Iranian and Somali asylum seekers and refugees living in the Netherlands

Abstract

Background Although asylum seekers have been coming to the Netherlands since the 1980s, very few epidemiological studies have focused on this group of inhabitants, or on the refugees who have resettled in this country. The objective of this study is to estimate the use of health care services by refugees and asylum seekers and to identify determinants for this utilisation.

Methods A population-based study was conducted in the Netherlands from June 2003 to April 2004 among adult refugees and asylum seekers from Afghanistan, Iran and Somalia. A total of 178 refugees and 232 asylum seekers, living in 3 municipalities and 14 reception centres, participated.

Results This study showed that there are no differences between refugees and asylum seekers in the self-reported use of health care services. Respondents from Somalia reported less contacts with a general practitioner, less use of mental health services and less medication use than respondents from Afghanistan and Iran. Both female gender and older age were related to more contacts with a general practitioner and a medical specialist, and with higher medication use. Poor general health was related to more contacts with a medical specialist and mental health services, and with higher medication use.

Conclusion Asylum seekers and refugees seem to have equal access to the Dutch health care system in general. However, there are differences in the self-reported use of health care services by the different ethnic groups.

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Introduction

Although asylum seekers have been coming to the Netherlands since the 1980s, few epidemiological studies have focused on this group of inhabitants, or on the refugees who have resettled in this country.¹⁻⁵ Many population-based studies among adult refugees and asylum seekers living in Western countries report on the prevalence of (mental) health problems,⁶ but only a few provide data on their use of the health care services.^{4,7-9} In European countries a differentiation can be made between refugees who have obtained a residence permit, and asylum seekers who are still in the process of achieving such status. In the Netherlands, in general, refugees are living in a municipality, while asylum seekers are living in reception centres (in which accommodation and limited educational and recreational facilities are provided). The two groups differ in their access to the health care system: refugees have direct access to a general practitioner, who functions as gate-keeper to the rest of the health care system; for asylum seekers, their first contact with the health care system is with a nurse in the community health services for asylum seekers (MOA), who may refer the asylum seeker to a general practitioner in or outside the centre. A population-based study was conducted in the Netherlands among adult refugees and asylum seekers from Afghanistan, Iran and Somalia to investigate their use of health care services. Furthermore, factors associated with their use of health care services will be identified.

Methods

An extensive description of the methods, including the selection of the study population and ethnic groups, the chosen outcome measures, the translation and cross-cultural adaptation of the measurement instrument, the training of the interviewers, and the practical execution of the study, can be found elsewhere.⁶

Study population

The study focused on people from Afghanistan, Iran and Somalia, because large groups of asylum seekers and refugees from these three countries are now living in the Netherlands. Asylum seekers were approached in 14 reception centres, randomly selected from the 46 centres located in the central region of the Netherlands. Random samples of refugees were obtained from the population registers of three municipalities (Arnhem, Leiden and Zaanstad) in which at least 200 refugees from each country were living. In each group a random selection was made of one person per family/address for inclusion in the study. The plan was to include 100 refugees and 100 asylum seekers per country of origin, to make it possible to compare sub-groups. Those who were selected for inclusion in the study were first sent a letter, after which they were contacted by one of the 33 specifically trained bilingual interviewers from the three countries of origin. Informed consent was obtained verbally from all respondents. No written informed consent was obtained, because having to sign a statement could remind the asylum seekers and refugees of earlier confrontations with authorities. This alternative informed consent procedure and the study protocol were approved by the Medical Ethics Committee of the VU University Medical Centre in Amsterdam. Asylum seekers were informed that

participation in the study would neither help nor hinder their request for asylum. All respondents received a financial incentive (10 Euros).

Outcome measures on use of health care services

To obtain an indication of the use of health care services, the following data were recorded: 1) contacts with a general practitioner in the previous two months; 2) contacts with an outpatient medical specialist in the previous two months; 3) hospital admissions (hospitalisation for one or more nights) in the previous 12 months; 4) contacts with mental health services (e.g. psychologist, psychiatrist) in the previous 12 months; 5) use of (un)prescribed medication in the previous 14 days and type of medication. For the asylum seekers the contacts with a nurse of the MOA in the previous two months were also recorded. These are all self-reported data, obtained with measures that have also been used in national health surveys.^{10,11} For the logistic regression analyses, all data were dichotomised into ‘no’ versus ‘any’ use of health care services.

Potential determinants

The following socio-demographic variables were recorded: country of origin; gender; age; highest level of education completed; period of residence in the Netherlands. The current health status of the respondents – as indicator for their need for health care – was measured according to the general health question of the Short Form-36 (SF-36).¹² For the logistic regression analyses, age was dichotomised into 18 to 37 years versus 38 years or older; education into none/religious/primary/secondary versus vocational/university; time in the Netherlands into less than 5 years and 5 years or more; and general health status into good (excellent, very good, good) and poor (fair, poor).

Following published guidelines, all questionnaires were cross-culturally adapted, translated into Dari, Pashto, Farsi and Somali, back-translated, and pre-tested.^{13,14}

Statistical analysis

Two-tailed Pearson chi-square and Student’s t-tests were used to examine differences in potential determinants between refugees and asylum seekers. Differences in the use of health care services between the two groups were examined by calculating odds ratios (ORs) with 95% confidence intervals (CIs) in univariate logistic regression analyses. To identify factors that were independently associated with indicators of the use of health care services, multivariate logistic regression analyses were performed, by entering all variables simultaneously: legal status, country of origin, gender, age, education, time in the Netherlands and general health status. Adjusted ORs were calculated to control for the presence of all other variables in the model. Finally, interactions between legal status and all other variables, and between country of origin and all other variables, were examined separately. $P < .05$ was considered to be statistically significant for all analyses.

Results

Characteristics of the study population

During a period of 10 months (June 2003 to April 2004), a total of 479 refugees were approached in the various municipalities. 34 refugees did not fulfil the inclusion criteria

(24 were younger than 18) and 144 could not be contacted (60% were never at home, 34% were not living at the given address [any longer] and could not be traced). Of the remaining 301 refugees, 123 were not interviewed, mainly because they were too busy or were not interested in participating. Thus, 178 of the 301 (59%) refugees who were eligible and had been contacted were interviewed (40% of the 445 eligible refugees who had been approached).

In the reception centres 391 asylum seekers were approached, 128 of whom could not be contacted (66% had left the centre [many with unknown destination], 34% were never at home) and one was younger than 18. Of the remaining 262 asylum seekers, only 30 were unwilling to be interviewed. Thus, 232 of the 262 (89%) asylum seekers who were eligible and had been contacted were interviewed (59% of the 390 eligible asylum seekers who had been approached).

Table 1 presents the number of respondents per country of origin, and the characteristics of the refugees and the asylum seekers are compared. There were more men than women in both groups. The refugees were somewhat older (except for the Somali refugees who were the same age as the asylum seekers) and had lived in the Netherlands for a longer period. The Iranian refugees had lived in the Netherlands for the longest period (mean 12.0 years, SD 4.2), and the Afghan asylum seekers for the shortest period (mean 2.8 years, SD 1.2). Only a third of the asylum seekers had completed higher education, compared to more than half of the refugees. More asylum seekers than refugees reported a poor general health status, and even 75.9% of the Iranian asylum seekers considered their health to be poor. In contrast, 64.8% of the Afghan refugees considered their health to be good.

Table 1 Characteristics of the study population

Characteristic	No. (%) of Respondents*			Statistic	P value
	Total (N=410)	Refugees (N=178)	Asylum seekers (N=232)		
Country of origin:					
- Somalia	87 (21.2)	25 (14.0)	62 (26.7)	NA	NA
- Afghanistan	206 (50.2)	90 (50.6)	116 (50.0)		
- Iran	117 (28.5)	63 (35.4)	54 (23.3)		
Gender:					
- male	241 (58.8)	99 (55.6)	142 (61.2)	$\chi^2 = 1.30$.254
- female	169 (41.2)	79 (44.4)	90 (38.8)		
Age, mean (SD), years	37.0 (12.4)	40.3 (13.3)	34.4 (11.1)	t = 4.83	.000
Education:					
- vocational/university	159 (38.8)	92 (51.7)	67 (28.9)	$\chi^2 = 22.07$.000
- none/religious/primary/secondary	251 (61.2)	86 (48.3)	165 (71.1)		
Time in the Netherlands, mean (SD), years	5.6 (4.0)	8.8 (4.1)	3.4 (1.6)	t = 16.98	.000
Poor general health status	211 (51.7) (N=408)	74 (42.0) (N=176)	137 (59.1)	$\chi^2 = 11.59$.001

NA = Not Applicable

* Total number of respondents equals total number per group, unless indicated otherwise.

Use of health care services

In table 2 the self-reported use of health care services by the refugees and asylum seekers is compared. There were no statistically significant differences between refugees and asylum seekers. Iranian refugees and asylum seekers reported the highest rate for ‘use of mental health services’ (24.6%) and ‘medication use’ (71.6%), whereas refugees and asylum seekers from Somalia reported the lowest rate for ‘medication use’ (42.5%). The mean number of contacts with a general practitioner in the past two months was 0.96 (SD 1.39) for the entire study population (there were no differences between the two groups). The most frequently self-reported medication use was: analgesics and antipyretics (67.9%), sleeping pills and tranquillisers (22.1%), medication for gastrointestinal complaints (17.9%), vitamin and mineral preparations (16.7%) and antidepressants (14.2%). With regard to the asylum seekers, 137 of the 216 (63.4%) reported that they had contacted a nurse of the MOA in the previous 2 months, and the mean number of contacts was 1.22 (1.45).

Table 2 Use of health care services

Health care service	No. (%) of Respondents*			Unadjusted OR (95% CI)	P value
	Total (N=410)	Refugees (N=178)	Asylum seekers (N=232)		
General practitioner (2 months)	189 (47.7) (N=396)	88 (49.7) (N=177)	101 (46.1) (N=219)	0.87 (0.58 – 1.29)	.476
Outpatient medical specialist (2 months)	83 (21.3) (N=389)	35 (19.9) (N=176)	48 (22.5) (N=213)	1.17 (0.72 – 1.91)	.526
Hospitalisation (12 months)	49 (12.1) (N=404)	21 (12.1) (N=174)	28 (12.2) (N=230)	1.01 (0.55 – 1.85)	.974
Mental health services (12 months)	52 (12.9) (N=403)	17 (9.7) (N=176)	35 (15.4) (N=227)	1.71 (0.92 – 3.16)	.087
Medication use (14 days)	241 (58.9) (N=409)	107 (60.5) (N=177)	134 (57.8)	0.90 (0.60 – 1.33)	.583

* Total number of respondents equals total number per group, unless indicated otherwise.
OR = Odds Ratio; CI = Confidence Interval

Factors associated with the use of health care services

The associations between the characteristics of the study population and the indicators for the use of health care services, adjusted for all other variables listed, are shown in table 3. As education and time in the Netherlands were not associated with any of the outcomes, the results for these variables are not presented. Furthermore, the results for hospitalisation are not presented, because no statistically significant associations were found, except for the association with poor general health (OR=2.23 [95%CI 1.15-4.34]).

Table 3 Factors associated with the use of health care services

Characteristic		General practitioner	
		Adjusted OR (95% CI)	P value
Legal status	refugees	1.00	
	asylum seekers	0.81 (0.42-1.56)	.532
Country of origin	Somalia	1.00	
	Afghanistan	1.81 (1.01-3.25)	.045
	Iran	1.77 (0.96-3.28)	.070
Gender	male	1.00	
	female	2.03 (1.33-3.10)	.001
Age, years	18-37	1.00	
	≥38	1.58 (1.01-2.46)	.046
General health status	good	1.00	
	poor	1.49 (0.96-2.29)	.073

OR = Odds Ratio; CI = Confidence Interval

Each variable has been adjusted for all other variables listed in the table and for education and time in the Netherlands (data not shown).

Again no differences were found in the use of health care services between refugees and asylum seekers. The OR for use of mental health services by asylum seekers, compared to refugees, decreased from 1.71 (95%CI 0.92-3.16; $p=.087$) (unadjusted) to 1.00 (95%CI 0.34-2.90; $p=.992$) (adjusted). Respondents from Afghanistan more often contacted a general practitioner, compared to respondents from Somalia. Respondents from Iran more often used mental health services, compared to respondents from Somalia and Afghanistan. Respondents from Afghanistan and Iran more often used medication, compared to respondents from Somalia. Both female gender and older age (38 years and older) were associated with a higher use of health care services, with the exception of the mental health services. A poor general health status was associated with a higher use of health care services.

Three statistically significant interactions were found:

- 1 The interaction terms for legal status and country of origin were statistically significant in the model with mental health services as outcome. As a result, the association between legal status and the use of mental health services is different for each of the three countries of origin: OR=0.35 (95%CI 0.06-2.21) for respondents from Somalia; OR=5.43 (95%CI 0.60-48.90) for respondents from Afghanistan; and OR=0.52 (95%CI 0.12-2.19) for respondents from Iran. Asylum seekers from Somalia and Iran therefore seem to make less use of mental health services than refugees from these two countries, while for people from Afghanistan this seems to be the other way around (although none of the differences were statistically significant).
- 2 The interaction term for legal status and general health status was statistically significant in the model with medication use as outcome. This means that the association between legal status and medication use depends on the general health

Outpatient medical specialist		Mental health services		Medication use	
Adjusted OR (95% CI)	P value	Adjusted OR (95% CI)	P value	Adjusted OR (95% CI)	P value
1.00		1.00		1.00	
1.12 (0.50-2.51)	.788	1.00 (0.34-2.90)	.992	0.70 (0.35-1.40)	.311
1.00		1.00		1.00	
0.70 (0.36-1.39)	.313	0.67 (0.27-1.66)	.384	2.21 (1.22-4.00)	.009
0.51 (0.24-1.07)	.073	3.03 (1.29-7.10)	.011	3.45 (1.79-6.64)	.000
1.00		1.00		1.00	
2.14 (1.27-3.59)	.004	1.10 (0.59-2.06)	.756	2.07 (1.31-3.26)	.002
1.00		1.00		1.00	
2.05 (1.20-3.52)	.009	0.80 (0.41-1.55)	.503	2.17 (1.35-3.50)	.001
1.00		1.00		1.00	
2.42 (1.39-4.20)	.002	2.49 (1.24-5.00)	.011	3.28 (2.07-5.21)	.000

status of the respondents: OR=1.12 (95%CI 0.51-2.47) for people with a good general health status; and OR=0.35 (95%CI 0.14-0.87) for people with a poor general health status. Asylum seekers with a poor general health status use therefore less medication than refugees with a similar health status.

- The interaction terms for country of origin and age were statistically significant in the model with medication use as outcome. This means that the association between country of origin and use of medication depends on the age of the respondents: for people aged 38 and older, compared to respondents from Somalia, the ORs are 0.67 (95%CI 0.19-2.35) for respondents from Afghanistan and 0.49 (95%CI 0.35-1.76) for respondents from Iran. However, for the younger age group these ORs are 3.21 (95%CI 1.54-6.68) for respondents from Afghanistan and 9.83 (4.09-23.67) for respondents from Iran. Therefore, only people from Afghanistan and Iran, between 18 and 37 years of age, use more medication than people in the same age group from Somalia.

Discussion

This study showed that there are no differences between refugees and asylum seekers in the self-reported use of health care services. Respondents from Somalia reported less contacts with a general practitioner, less use of mental health services and less medication use than respondents from Afghanistan and Iran. Both female gender and older age were related to more contacts with a general practitioner and a medical specialist, and with higher medication use. A poor general health status was related to more contacts with a medical specialist and more use of the mental health services, and with higher medication use.

The sampling procedures were intended to produce a representative sample of all refugees and asylum seekers from the three countries under study. However, the number of refugees who could not be contacted was rather high, due to incorrect address lists and because they were never at home, despite the fact that the interviewers tried to contact them on several occasions during the day and in the evening, during the week and in the weekend. Unfortunately, this is a common problem in studies among asylum seekers and refugees in the Netherlands.^{2,4,5} A low response rate may influence the representativeness of the sample. However, the respondents did not differ from those who could not be contacted in age or gender. Respondents and non-respondents (those contacted, but not interviewed) did not differ in age, but the male refugees were more likely to be unwilling to participate.

The validity and reliability of the measurement instruments has not (yet) been tested in the population included in the present study. However, the measurement instruments have been used in many health surveys, also including immigrants.^{10,15} Furthermore, all measurement instruments have gone through an extensive translation and cross-cultural adaptation process and have been pre-tested. Self-reported data on the use of health care services are presented, and earlier research has shown that self-reports produce a reasonably valid estimate of differences between groups in the use of health care services.¹⁶

More asylum seekers than refugees considered their general health status to be poor. The study also showed that more asylum seekers than refugees had symptoms of post-traumatic stress disorder (PTSD) (28.1% and 10.6%) and depression/anxiety (68.1% and 39.4%) (Gerritsen et al, 2005; submitted). When access to the health care system is equal for both groups, one would expect the asylum seekers to have higher rates of use in the unadjusted analyses, and that the differences between asylum seekers and refugees would become smaller in the adjusted analyses. However, if asylum seekers have less access to the health care system than refugees, one would expect the asylum seekers to have lower rates of use than the refugees in the adjusted analyses. The first assumption seems to be true with regard to the use of mental health services, although the difference in the unadjusted analysis is not statistically significant. As the main differences in health problems between asylum seekers and refugees were found to be mental health problems (and this may also be reflected in the general health status), this may explain the fact that no differences were found in contacts with a medical specialist, hospitalisation and medication use in either of the analyses. Also, because asylum seekers with mental health problems might be referred to a social-physician of the MOA, these problems may not always lead to contact with a general practitioner. Controlling for other health outcomes, such as PTSD and depression/anxiety, yielded similar results (data not shown). However, when looking at the results of the interaction analyses, it seems that asylum seekers with a poor general health status have less access to medication than refugees with a similar health status.

No reference data are available from studies of refugees from these countries who are now living in Western countries. However, the results of this study are comparable with those of health surveys conducted in the general population of the Netherlands. In general, data are presented from the second Dutch National Study of Morbidity and Intervention in General Practice, conducted by the NIVEL from 2000-2002.^{11,15} This study also included immigrants who, like asylum seekers and refugees, may have encountered problems related to migration and acculturation. When comparing the

results, it should be taken into account that in the Netherlands there are certain differences in socio-demographic characteristics (e.g. gender, age, education) between the general population, the immigrant population and the study population of refugees and asylum seekers. 42% of the general population and 51% of the immigrants reported that they had contacted a general practitioner in the previous 2 months, compared to 47.7% of the refugees and asylum seekers. However, the mean number of contacts seems to be lower for the study population (0.96 [SD 1.39]), compared to the general population (1.7 [SD 1.24]) and the immigrants (2.2 [SD 1.86]). The prevalence of hospitalisation seems to be higher among asylum seekers and refugees (12.1%), compared to the general population (7.2%) and the immigrants (7.5%). The use of mental health services made by the study population (12.9%) is comparable with that made by immigrants (11%), but higher than the use made by the general population (6%). The prevalence rates of medication use are not comparable, because no distinction was made between prescribed and 'over-the-counter' medication in the present study. However, the rates of the most commonly used types of medication all seem to be higher in the study population than in the general population.

With respect to the determinants for health outcomes, similar results have been found, compared to the present study. The national survey found that among women and older people there was a higher prevalence of contacts with a general practitioner and a medical specialist, and higher medication use. However, the survey also found that women were more often hospitalised and made more use of the mental health services, which was not confirmed in the present study.

Conclusion

Asylum seekers and refugees seem to have equal access to the Dutch health care system in general. However, there are differences between the various ethnic groups in their self-reported use of the health care services.

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4 Health and health care use of asylum seekers and refugees in the Netherlands: a medical records study

Lamkaddem M, Devillé W, Gerritsen AAM, Poortvliet MC, de Bakker DH, van der Ploeg HM. Health and health care use of asylum seekers and refugees in the Netherlands: a medical records study. Submitted.

Introduction

Refugees and asylum seekers form together a considerable proportion of the migrant population in the Netherlands. From 1975 onwards, the total number of asylum requests in the Netherlands has been increasing year after year, reaching its maximum at the end of the nineties (45,220 asylum requests in 1998), and decreasing since then. In 2004, 9,780 asylum requests have still been registered. The difference between asylum seekers and refugees in the Netherlands is basically a question of legal status. Refugees have been granted a residence permit, while asylum seekers started the procedure to get one. Asylum seekers are in a temporary situation, for all matters including housing and work, while refugees are inserted in the Dutch society.

Both asylum seekers and refugees are known for presenting psychological and somatic symptoms and diseases related to fleeing human rights abuses or war. Being the victim of violence or witnessing acts of violence isn't uncommon when fleeing a country at war, and this can affect the physical as well as the mental health. Therefore, several studies focus on the relationship between the prevalence of mental health problems and traumatic events linked to the migration history. Physical health problems presented by asylum seekers or refugees have also been examined. Nevertheless, the comparison between refugees and asylum seekers in their health status hasn't been done often yet.

Comparing asylum seekers and refugees in their state of health is of interest when willing to establish a link between state of health and the steadiness/temporality of a situation, and state of health and the degree of access to the health care system. Previous research has already shown the link between the prevalence of mental disorders and the length of the asylum procedure,¹ and the access to health care is obviously of influence on the health state of a population.

Refugees and asylum seekers in the Netherlands have the right to the same health care as the Dutch population. Specific preventive health services and a tailor-made referral task are offered to asylum seekers in addition to the regular health system in order to bridge whatever knowledge or culture gap there might be with the Dutch health system. These services are offered by MOA (Medische Opvang Asielzoekers = Community Health Services for Asylum seekers).

MOA-nurses are the first contact persons with the Dutch health care system for asylum seekers. One function of the MOA is to inform the asylum seeker about the organization of health care in the Netherlands, and to guide the health care demand to the appropriate health care provider.

Refugees, as other Dutch, contact their GP directly. This difference in systems must be kept in mind when comparing health outcomes and health care use of asylum seekers and refugees.

Specifically, the following paper will be organised around three central questions:

- 1 *'Which health problems are being presented by asylum seekers and refugees?'*
- 2 *'To what extent do asylum seekers and refugees make use of the health care system?'*
- 3 *'To what extent is the health care system aware of (self-reported) health problems of asylum seekers and refugees?'*

In answering the first two questions, the authors tried to give an accurate image of the current state of health and health care use of asylum seekers and refugees in the Netherlands. At this point of the research, the purpose of this paper is mainly to pinpoint at interesting resemblances and differences between asylum seekers and refugees in their health issues and health care use, rather than elaborating on the epidemiological aspects of the question. The third question examines the extent to which the health care system is aware of health care problems reported by asylum seekers and refugees, under the assumption that an equal awareness would point in the direction of equally adapted health systems for both groups.

Methods

Sample and data collection

Detailed information about the study design, study population and outcome measures can be found elsewhere.² The following paragraphs give a short and general description of the procedures used for collecting the data, especially from the medical records of the respondents.

Three ethnic groups were chosen to take part in this study. Refugees and asylum seekers (over 18 years old) from Afghanistan, Iran, and Somalia were represented. Those three countries are among the top 10 nationalities of residents in the Dutch reception centres. Fourteen reception centres and three municipalities were approached and, after random selection, samples of approximately 150 potential respondents per country of origin and status (asylum seekers or refugees) were selected. Eventually, 410 interviews were conducted, 232 with asylum seekers, and 178 with refugees. Detailed information about the interviews, subsequent studies and results are described elsewhere.^{2,3}

At the end of the interview, those respondents were asked to give their written consent for the review of their medical records. Of the 232 interviewed asylum seekers, 207 agreed (89.2%) and of the 178 interviewed refugees, 141 (79.2%) gave their consent.

Finding the medical records of the respondents was not always easy. The participation of several general practices was required, but not always granted. Other issues were for example incorrect GP's addresses provided by the respondents, or that some respondents had moved to another (unknown) address (the respondent was not registered anymore at the practice), or in the case of some asylum seekers, that the respondent had to leave the country (medical records were then not accessible anymore). Eventually, the medical records of 102 of the 141 refugees (72.3%) were found and recorded, and of 163 of the 207 asylum seekers (78.7%). This resulted in a database made of medical records of 265 respondents over a span of one year (12 months preceding the datum of interview).

Of those 265 medical files, 228 were considered to be complete. Analyses on the health care use (contacts per patients per year) and on health issues are only taking those records into consideration.

Contacts with the different health care providers (including specialists) and presented symptoms, laboratory tests and long-term health problems were recorded. Two types of information about health issues were registered. First, the long-term health issues. These problems are originating from the so-called "problem-list" of the medical records as registered by the GP. This list summarizes the long-term health problems of the patient, such as allergies, diabetes or heart problems, for instance. A second type of information is the reason for encounter with the health care provider. An encounter (or contact) is in this case a face-to-face or a telephone consult, or a home visit of the health care provider concerning one health issue. The reason is in this case the presented health issue.

The different symptoms and diagnoses in the medical records were coded using the International Classification of Primary Care (ICPC) system. This system allows classifying symptoms and diagnoses according to the physical parts they affect (organ systems, or ICPC-chapters). Symptoms and diagnoses get a specific ICPC code assigned, which can be classified under an ICPC chapter related to the organ system affected. A detailed description of this system can be found elsewhere.⁴ If the ICPC system was already used in the medical records, the chosen codes were registered. Otherwise, the symptoms and diagnoses descriptions were encoded.

Additionally, some information from the interview part was registered. Demographic characteristics such as gender, age, time in the Netherlands, etc. are originating from the interview part, as well as (maximum) five self-reported (long-term) health problems. Those were added to our database in order to find out whether those self-reported problems were also registered in the medical record (third question of this paper). All parts of the patient's medical records were searched in order to find back each self-reported problem. Patients whose medical records were (partly) incomplete were excluded from this analysis.

Statistical analyses

In order to compare the health issues between the different groups, frequency tables and cross tables were used. The intensity of health care use was implemented counting the number of contacts with on the one hand, general practices for refugees, and on the other hand, MOA-nurses and GPs for asylum seekers. For the refugees group, the medical records provided by the general practices did not allow a distinction between the contacts that took place with the GP and the ones with other workers of the general practice. Differences were tested using Student's t-test and, when applicable, chi-square and ANOVA tests. The comparison between the extents to which self-reported health issues (percentage of self-reported health issues) can be found back in the medical records for both groups, was made using Student's t-test. For all statistics, a p value of 0.05 was chosen to consider results as statistically significant.

Results

Study population characteristics

Eventually, the complete medical records of 135 asylum seekers and 93 refugees were collected. In this sample, Somali refugees were underrepresented, while Iranian refugees were overrepresented. In both groups, men were slightly overrepresented. Refugees were on average 5.4 years older than asylum seekers and, on average, they had been residing for almost 5.6 years longer in the Netherlands than asylum seekers. In both groups, Iranians had been the longest in the Netherlands, and Afghans the shortest.

Table 1 Characteristics of the study population (N= 228)

	Asylum seekers (N=135)	Refugees (N=93)	P value
Country (N, %):			.000
Afghanistan	79 (58.5)	53 (57.0)	
Iran	17 (12.6)	29 (31.2)	
Somalia	39 (28.9)	11 (11.8)	
Gender (N, %):			.742
male	77 (57.0)	51 (54.8)	
female	58 (43.0)	42 (45.2)	
Age (mean, sd): (min – max)	37.3 (12.2) (19-70)	42.7 (13.5) (20-85)	.002
Time in the Netherlands (mean, sd): (min – max)	3.10 (1.3) (0.6 – 10)	8.7 (4.0) (2.0 – 23.3)	.000

Health issues

As explained earlier, two types of health problems were registered: long-term health issues, and episodic health issues, or reasons for encounters. The following paragraphs present the health problems of asylum seekers and refugees according to those types.

Long-term health issues

On average, refugees presented 1.9 long-term health problems, and asylum seekers 4.5 (p<.000). Differences between countries of origin and between genders were insignificant. Table 2 presents the 5 most common types of long-term health problems according to their ICPC chapter classification.

Table 2 Main long-term health problems registered in problem list classified by ICPC chapter

Health problems of asylum seekers (N=613)	%	Health problems of refugees (N=177)	%
Z Social problems	31.0	L Musculoskeletal	18.1
L Musculoskeletal	11.6	D Digestive	13.6
P Psychological	11.3	R Respiratory	13.0
D Digestive	10.4	Z Social problems	11.3
K Circulatory	4.7	S Skin	9.0
Total	69.0	Total	65.0

Social problems are three times more common among asylum seekers (p<0.000). Musculoskeletal problems seem to be more prevalent among refugees (18.1% versus 11.6%, p=.003) although this type of problems is also among the most common problems of asylum seekers. Although psychological problems appear among the top five types of problems of asylum seekers and not among the ones of refugees, the difference in proportions between the two groups is not significant (11.3% versus 7.9%, p=.248).

Table 3 presents the top 5 long-term health issues of asylum seekers and refugees as found in the problem list. The first two health problems are similar in both groups. Both problems are classified as social problems according to the ICPC system, and are most probably related to the migration history. Their prevalence is significantly lower in the refugees group than in the asylum seekers group (4.0% and 3.4% versus 11.9% and 10.0% of all long-term problems recorded for the group, p=.004 and p=.009 respectively).

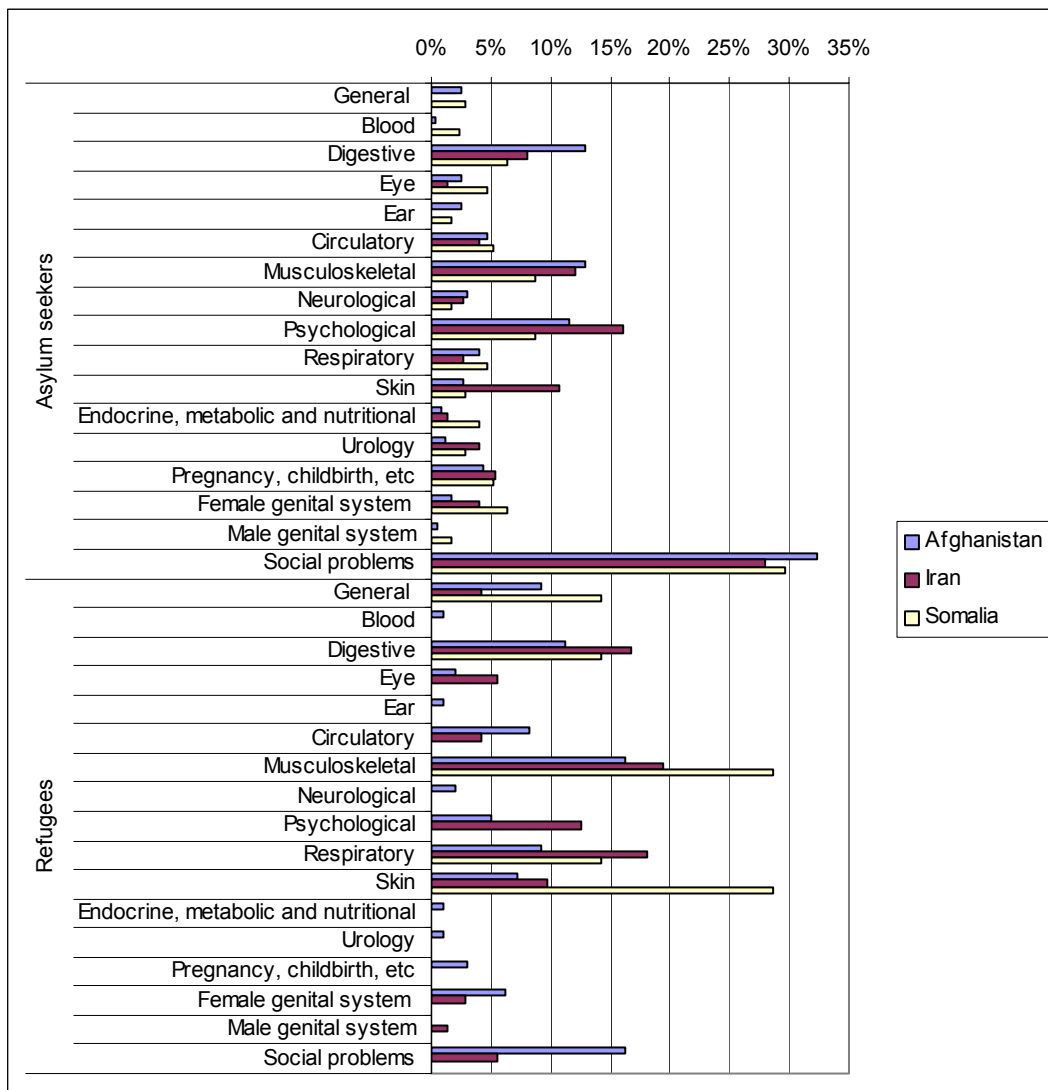
Table 3 Main long-term health problems registered in problem list classified by ICPC code

Health problems of asylum seekers (N=613)	%	Health problems of refugees (N=177)	%
Z25 Prob. assaults/harmful events	11.9	Z25 Prob. assaults/harmful events	4.0
Z23 Loss/death parent/family	10.0	Z23 Loss/death parent/family	3.4
P06 Sleep disturbance	5.4	L03 Low back sympt/complt excl radiation	2.8
Z15 Loss/death of partner	4.4	D87 Disorders stomach function	2.3
P01 Feeling anxious/nervous/tense	3.8	D84 Disease of esophagus	2.3
Total	35.5	Total	14.8

All five most common long-term health issues among asylum seekers are psychological or social, and could all be directly or indirectly related to the history of persecution. These results concord with earlier findings on the topic.⁵ These five problems account together for a third (35.5%) of all registered long-term problems for asylum seekers, while among refugees, long-term health issues are on the whole more diverse. The five most common problems account for only 15% of the total for this group.

Further analyses show that the different nationalities do not significantly differ in the type of long-term health problems registered, probably due to too few cases per category. The four most common types of long-term health problem are similar among all ethnic groups, with social problems as most common type among each group. Another noticeable outcome is the higher prevalence of psychological problems among Iranians compared to the other groups, and of musculoskeletal and skin problems among the Somali refugees (see figure 1).

Figure 1 Long-term health problems per status and country group classified by ICPC chapter (N=790)



Reasons for encounter: presented symptoms and diagnoses

At this point, we want to focus on the presented symptoms rather than on the use of health care. For this reason, in the following paragraphs, we will be comparing asylum seekers' contacts with the MOA-nurse as well as the GP on the one hand, and refugees' contacts with the general practice on the other. We excluded from these analyses all contacts concerning teeth and gums problems (ICPC code D19). Asylum seekers do not have a direct access to the dentist and must arrange an appointment through the MOA-nurse, while refugees would directly contact a dentist for the same kind of problems, without reporting this to the general practice. Repeat prescriptions excepted (3.7% of all reasons for encounter with the MOA-nurse), teeth and gums problems (ICPC code D19) were the most common reason for encounter with the MOA-nurse (7.5% of all encounters with the MOA-nurse).

In general, the presented types of symptoms and diagnoses to the different health care providers (problems presented to the GP and the MOA-nurse on ICPC chapter level) were different per status-group ($p < .000$). Psychological (P) problems were significantly more often registered for asylum seekers than for refugees ($p < .000$).

Table 4 Main reasons for encounter with primary health care providers classified by ICPC chapter

Reasons for encounter			
Asylum seekers (<i>N</i> =1200)	%	Refugees (<i>N</i> =382)	%
L Musculoskeletal	18.5	L Musculoskeletal	23.6
P Psychological	13.5	D Digestive	14.7
D Digestive	12.7	R Respiratory	12.8
R Respiratory	10.3	S Skin	9.2
S Skin	7.1	A General and unspecified	6.3
Total	62.1	Total	66.6

On the other hand, refugees presented significantly more urological complaints (5% versus 3% of all reasons for encounter, $p = .019$). Urinary infections (among which cystitis) account for 36.8% of urological problems among refugees. Refugees also presented significantly more musculoskeletal problems than asylum seekers (23.6% versus 18.5%, $p = .037$).

Table 5 presents the three most common types of presented health problems per country of origin without taking the status into account.

Table 5 Three main reasons for encounter with primary health care providers classified by ICPC chapter

Reasons for encounter					
Afghanistan (N=957)	%	Iran (N=305)	%	Somalia (N=320)	%
L Musculoskeletal	19.6	L Musculoskeletal	17.7	L Musculoskeletal	21.9
D Digestive	13.9	P Psychological	17.0	R Respiratory	17.2
P Psychological	12.1	R Respiratory	13.8	D Digestive	13.1

Although respiratory problems are among the three main problems of the Iranian and Somali groups, this type only comes in the fourth place among Afghans. This difference exists for refugees as well as for asylum seekers.

The Somali group presents a lower rate of psychological problems (5% of all reasons for encounters for this group, compared with 12.1% for the Afghan group, and 17% for the Iranian). This difference remains when comparing origins by the type of status. Somali refugees and asylum seekers present less psychological problems as reasons for encounters with the different caregivers. On the whole, the presented health problems within the Somali group were similar in the refugees and the asylum seekers groups.

Use of the health care system

The following part examines the extent to which asylum seekers and refugees make use of the health care system. As explained earlier, both groups face different accesses to this system. Therefore, the frequency of contacts with the different health care providers cannot be compared unilaterally between those groups.

Use of health care for asylum seekers

On average, asylum seekers have a contact frequency of 3.2 contacts/year with the general practitioner, and of 7.7 contacts/year with the MOA-nurse. Difference between countries of origin was not significant. Women had on the whole a higher frequency of contacts with the GP (4.5 contacts/year, versus 2.3 contacts/year for men, $p=.005$). A higher frequency for women in their contacts with the MOA-nurse was also noticed, although just insignificant (6.5 contacts/year for men, versus 9.2 contacts/year for women, $p=.060$).

Teeth and gums problems account for 7.5% of all encounters with the MOA-nurse. The second reason for encounter with the MOA-nurse was coded as ICPC P01. This stands for “Feeling anxious/nervous/tense/inadequate”, and occurs in 5.7% of all contacts with the MOA-nurse. The third reason (3.7%) was low back complaints without radiation (ICPC code L03). The fourth type of complaints was stomach ache/pain (2.8%). On the fifth place came symptoms such as headache and cough (both 2.7%).

Eighty-five percent of the encounters on teeth/gums problems were followed by a referral, in most cases (90%) to a dentist, and in some cases to a general practitioner.

Complaints of a general psychological order (ICPC code P01) were followed in 40% of the cases by a referral, mostly to the GP (13 cases, 625 of all contacts on P01), and in other cases to social workers, or professionals of the RIAGG (Regional Institute for Mental Welfare). Referrals for the other four types of complaints were mostly referrals to the GP.

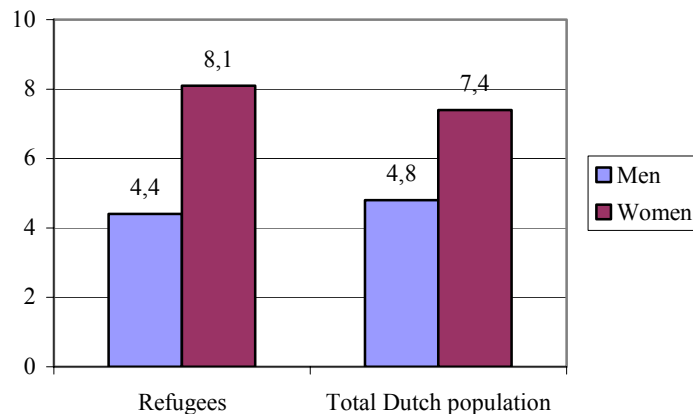
In general, MOA-nurse referred to another health care provider in 45.4% of the cases. Those referrals concerned a referral to the GP in 76% of the cases. This means that almost 35% of encounters with the MOA-nurse are followed by a referral to the GP.

The general practitioner gave a referral in 17% of the cases to another type of health care provider. This was mostly a referral to a physiotherapist (19.7% of all GPs' referrals), a gynaecologist (12.1%) or a dentist (10.6%). As a matter of comparison, for the Dutch population, GPs refer also mostly to physiotherapists (32%) and gynaecologists (9%). The high referral rate to dentists can still be explained at this point by the difference in access for asylum seekers. Psychological (ICPC code P) and Social (ICPC code Z) problems presented to the GP are followed by a referral in 14.3% of the cases. As a matter of comparison, musculoskeletal complaints presented to the GP by this group are followed by a referral in 32% of the cases.

Use of health care for refugees

Refugees had on average 6.07 contacts with the general practice per patient per year. There were no significant differences between countries of origin in the frequency of contacts ($p=.187$). A comparison can be made with similar figures for the Dutch population, according to the gender in 2001.⁶

Figure 2 Contacts per patient per year with the general practice



In our sample, men had fewer contacts with the general practice than women (4.4 contacts/year, versus 8.09 contacts/year, $p=.001$). This is the case for the Dutch population as well. Further analyses show that this difference only counts for the Afghans, which is as well the larger group in this sample ($p<.000$). The other two country

groups do not show significant gender differences in the frequency of contacts with the general practice.

Due to registration issues, information about the percentage of contacts referred by the GP is not available. Thirteen percents of all contacts with the general practice (N=455) are followed by a referral to another health care provider, mostly to a physiotherapist (25% of all referrals) or a gynaecologist (10% of all referrals), alike the main referrals for the Dutch population and for asylum seekers.

The results presented here above on the health care use of asylum seekers concord with previous research on the topic⁷ and, for refugees, with national figures on the health care use of the Dutch population.⁶ In both groups, women had a higher frequency of contacts with the health care providers, which is also the national tendency.

Self-report and medical records: a comparison

The last question orienting this paper is the extent to which self-reported health problems can be found back in the medical records of refugees and asylum seekers. The answer to this question can form an indicator of the adequacy of the health care system access to the existing demand. This question is especially relevant in the case of asylum seekers, as long as this group has a limited access to the GP, compared to the refugees group who self-determines in a greater measure their use of GP care.

The following section presents the number of self-reported health issues for each group. On average, respondents reported 1.9 long-term problems (maximum allowed: 5). There was no significant difference between asylum seekers and refugees on the number of self-reported problems ($p=.144$), but the different countries of origin groups showed significant differences ($p=.014$). Further analyses show that those differences between countries of origin are only significant for the asylum seekers group ($p=.001$). Within this group, Afghans reported the most health problems, and Iranians the less.

Table 6 Number of self-reported long-term health problems (N=228)

	Asylum seekers	Refugees	Status total
Afghanistan	2.3	1.8	2.08 (N=132)
Iran	1.3	1.7	1.56 (N=46)
Somalia	1.6	1.4	1.60 (N=50)
Country total	2.0	1.7	1.90 (N=228)

Results on the extent to which each self-reported problem can be found back in the medical records are presented in the form of a percentage (proportion of self-reported problems registered in the medical records of the respondent) here below.

Table 7 Proportion (%) of self-reported long-term health problems registered in medical records (N=190)*

	Asylum seekers	Refugees	Status total
Afghanistan	56	66	60
Iran	62	70	66
Somalia	77	58	73
Country total	63	66	64

* Calculated for respondents with one or more self-reported problems.

No significant difference was found between asylum seekers and refugees, nor between countries of origin groups on the proportion of registered self-reported health problems. On average, 64% of all self-reported long-term health issues were found back in the medical files.

The only exception could be that, within the asylum seekers group, differences between nationalities were almost significant ($p=.065$).

Discussion

Similarities in the presented health problems of refugees and asylum seekers are especially present for the long-term health issues. The main long-term problems presented by both groups are social and relate to the loss of family members and the experience of harmful events. Although among the five most common long-term problems of both groups, social problems are three times more common among asylum seekers. The migration history seems determinant in the presented type of long-term health issues, and keeps on affecting one's health through the years.

Musculoskeletal problems seem to be more prevalent among refugees, although this problem is also among the most common long-term health issues of asylum seekers. In general, back problems are also very common among the Dutch population as long-term health issues.⁸

Although the presented long-term problems were quite similar in all groups, the presented symptoms and diagnoses during the encounters with the different health care providers do not seem to follow that trend. Some of the differences seem to be partly explainable by the age difference between groups. For instance, the higher rate of musculoskeletal problems under refugees is explained by the high occurrence of the problem among Iranian refugees only. This subgroup is also the oldest of all subgroups. Refugees also present more urological problems than asylum seekers. Knowing that the prevalence of urinary infections is related to the age and that, in this study, the refugees group was on average 5.4 years older than the asylum seekers group, one can hypothesise that age differences can account for the difference in the importance of urological problems between both groups.

However, unexplained differences on presented episodic health problems between countries of origins persist within each status group. Somali tend to present less psychological health problems, and Afghans less respiratory problems. If respiratory problems are among the three main problems of the Iranian and Somali groups, this type only comes in the fourth place among Afghans. A difference in age between groups cannot account for this difference. This difference exists for refugees as well as for asylum seekers. The lower rate of psychological problems among the Somali group remains when comparing origins by the type of status. On the whole, the presented health problems within the Somali group were similar in the refugees and the asylum seekers groups.

On the use of the health care system, refugees seem to have a level of use similar to that of the general Dutch population. Unilateral comparison with the asylum seekers group is not possible seen the difference in systems, and the encountered registration issues within this research. Nevertheless, one can conclude that the frequency of GP's contacts of asylum seekers (3.2 contacts/patient/year) is not higher than the Dutch average of 3.9 GP's contacts per patient per year in 2001.⁹ Moreover, more than 11 percent of the MOA-nurse contacts are contacts on matters that are neither treated by the GP in the general practice for regular patients (teeth and gums problems for 7.5%, and repeat prescriptions for 3.7%, which are mostly dentists and medical assistants tasks). The remaining 88.8 percent of all the MOA-nurse contacts are referred in 34.5% of the case to the GP, which leaves 69.4% of the MOA-nurse contacts as irreplaceable (5.3 contacts/patient/year).

Conclusion

The fact that self-reported health problems are equally known by the health care providers in both systems confirms the relative adequacy of the different systems for the demands of both groups. This doesn't allow conclusions on the quality of care. Our results show for instance that the low referral rate to mental health care professionals doesn't match the high prevalence of psychological problems among asylum seekers. This could form a point of consideration when evaluating the quality of the health care system for asylum seekers.

Conclusions issuing from these results must be tempered by the fact that a discrepancy may exist between the way the patient expresses and communicates his/her health issues, and the way health care providers translate and classify the health care demand according to urgency/relevance. Previous researches have already been emphasising the cultural dimension of self-rated health.¹⁰ Therefore, eventual differences between groups can also be resulting from cultural differences in expressing one's health problems.

Additional research is necessary in order to focus on the main differences in health issues between ethnic groups, taking cultural and epidemiological variables into account. Likewise, the assumption of an equal quality of care for asylum seekers and Dutch residents is not yet confirmed nor infirmed by the present results, and further research on this aspect remains relevant in order to assess the efficiency of the system for asylum

seekers. The present results and database form an interesting starting point for further research in those directions.

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