

**Table I.** Characteristics of the studies addressing refugees' health issues and challenges

Study year/Country	Design	Objective	Key themes/findings
Alprem et al. (20) 2016 USA	Survey ( <i>n</i> = 199) medical residents in Internal Medicine & Pediatrics	Assess perceived knowledge, attitudes, & experience with immigrant & refugees	<ul style="list-style-type: none"> <li>• Most (82%) enjoyed caring for immigrants/refugees</li> <li>• 65% planned to care for this population after residency</li> <li>• 54% were uncomfortable with their knowledge regarding immigrant/refugee health</li> <li>• Specific challenges included: language (98%), cultural barriers (92%), time constraints (72%), &amp; limited knowledge of tropical medicine (69%)</li> <li>• 82% wanted more training in refugee/migrant health</li> </ul>
Amara et al. (21) Germany	2014 Narrative review	Determine prevalence & distribution of chronic NCDs amongst urban refugees living in developing countries; to report refugee access to healthcare for NCDs	<ul style="list-style-type: none"> <li>• Prevalence varied by refugees' region or country of origin</li> <li>• Most common NCDs: hypertension, musculoskeletal disease, diabetes and chronic respiratory disease</li> <li>• Most urban refugees in developing countries have adequate access to primary healthcare services, however, access to secondary &amp; tertiary healthcare remains problematic</li> <li>• Financial barrier identified as main reason not seeking healthcare</li> <li>• Have different experiences &amp; expectations of health &amp; of healthcare</li> <li>• Symptoms of psychological distress are common, but do not necessarily signify psychiatric disorders</li> <li>• Many have difficulty expressing healthcare needs &amp; problems accessing healthcare</li> <li>• Poverty &amp; social exclusion have a negative impact</li> <li>• Trained interpreters or advocates, (rather than family members or friends), should be used wherever possible</li> <li>• Community organizations provide invaluable support &amp; reduce the isolation experienced by refugees</li> <li>• Many issues, such as women's health and child health issues, often not acknowledged</li> </ul>
Burnett A (10) UK	2001 Narrative review	Overview of health needs of asylum seekers and refugees	<ul style="list-style-type: none"> <li>• Persistent barriers included: <ul style="list-style-type: none"> <li>• Language</li> <li>• Cultural differences</li> <li>• Difficulties with transport to health centres</li> <li>• Long wait times</li> <li>• Cost of care, limited government funding</li> </ul> </li> <li>• Common symptoms reported: <ul style="list-style-type: none"> <li>• Psychological symptoms relate to their experience of torture &amp; trauma: intense anxiety, poor sleeping pattern, depression</li> <li>• Post-traumatic stress disorder: poor concentration, heightened arousal &amp; loss of memory</li> <li>• Children often suffer prolonged psychological distress</li> <li>• These compounded by effects of detention, discrimination, lack of social support &amp; unemployment</li> <li>• Physical sequelae of torture or trauma: mal-united fractures, osteomyelitis, epilepsy or deafness from head injuries, or non-specific musculoskeletal pain or weakness</li> <li>• Infectious &amp; nutritional diseases</li> <li>• Chronic illnesses including hypertension, heart disease, diabetes peptic ulcer disease</li> <li>• Access improved by multidisciplinary staff, use of interpreters &amp; bilingual staff, no-cost or low-cost services, outreach services, free transport to &amp; from appointments, longer clinic opening hours, patient advocacy, &amp; use of gender-concordant providers</li> <li>• Provide services, which are affordable, appropriate &amp; acceptable to target groups</li> <li>• Coordination between the different healthcare services &amp; those responding to social needs of clients improved through case-management by specialist workers</li> <li>• Quality of care improved by training staff in cultural sensitivity &amp; appropriate use of interpreters</li> </ul> </li> </ul>
Cheng et al. (32) Australia	2015 Qualitative case study	Analyse factors influencing Afghan refugees' access to primary care	<ul style="list-style-type: none"> <li>• Persistent barriers included: <ul style="list-style-type: none"> <li>• Language</li> <li>• Cultural differences</li> <li>• Difficulties with transport to health centres</li> <li>• Long wait times</li> <li>• Cost of care, limited government funding</li> </ul> </li> <li>• Common symptoms reported: <ul style="list-style-type: none"> <li>• Psychological symptoms relate to their experience of torture &amp; trauma: intense anxiety, poor sleeping pattern, depression</li> <li>• Post-traumatic stress disorder: poor concentration, heightened arousal &amp; loss of memory</li> <li>• Children often suffer prolonged psychological distress</li> <li>• These compounded by effects of detention, discrimination, lack of social support &amp; unemployment</li> <li>• Physical sequelae of torture or trauma: mal-united fractures, osteomyelitis, epilepsy or deafness from head injuries, or non-specific musculoskeletal pain or weakness</li> <li>• Infectious &amp; nutritional diseases</li> <li>• Chronic illnesses including hypertension, heart disease, diabetes peptic ulcer disease</li> <li>• Access improved by multidisciplinary staff, use of interpreters &amp; bilingual staff, no-cost or low-cost services, outreach services, free transport to &amp; from appointments, longer clinic opening hours, patient advocacy, &amp; use of gender-concordant providers</li> <li>• Provide services, which are affordable, appropriate &amp; acceptable to target groups</li> <li>• Coordination between the different healthcare services &amp; those responding to social needs of clients improved through case-management by specialist workers</li> <li>• Quality of care improved by training staff in cultural sensitivity &amp; appropriate use of interpreters</li> </ul> </li> </ul>
Harris & Zwar (28) 2005 Australia	Narrative review	Outline range of problems in refugee patients in general practice & some approaches to dealing with them	<ul style="list-style-type: none"> <li>• Persistent barriers included: <ul style="list-style-type: none"> <li>• Language</li> <li>• Cultural differences</li> <li>• Difficulties with transport to health centres</li> <li>• Long wait times</li> <li>• Cost of care, limited government funding</li> </ul> </li> <li>• Common symptoms reported: <ul style="list-style-type: none"> <li>• Psychological symptoms relate to their experience of torture &amp; trauma: intense anxiety, poor sleeping pattern, depression</li> <li>• Post-traumatic stress disorder: poor concentration, heightened arousal &amp; loss of memory</li> <li>• Children often suffer prolonged psychological distress</li> <li>• These compounded by effects of detention, discrimination, lack of social support &amp; unemployment</li> <li>• Physical sequelae of torture or trauma: mal-united fractures, osteomyelitis, epilepsy or deafness from head injuries, or non-specific musculoskeletal pain or weakness</li> <li>• Infectious &amp; nutritional diseases</li> <li>• Chronic illnesses including hypertension, heart disease, diabetes peptic ulcer disease</li> <li>• Access improved by multidisciplinary staff, use of interpreters &amp; bilingual staff, no-cost or low-cost services, outreach services, free transport to &amp; from appointments, longer clinic opening hours, patient advocacy, &amp; use of gender-concordant providers</li> <li>• Provide services, which are affordable, appropriate &amp; acceptable to target groups</li> <li>• Coordination between the different healthcare services &amp; those responding to social needs of clients improved through case-management by specialist workers</li> <li>• Quality of care improved by training staff in cultural sensitivity &amp; appropriate use of interpreters</li> </ul> </li> </ul>
Joshi et al. (30) Australia	2013 Systematic review	Identify components of primary healthcare service delivery models for refugees effective in improving access, quality & coordination of care	<ul style="list-style-type: none"> <li>• Persistent barriers included: <ul style="list-style-type: none"> <li>• Language</li> <li>• Cultural differences</li> <li>• Difficulties with transport to health centres</li> <li>• Long wait times</li> <li>• Cost of care, limited government funding</li> </ul> </li> <li>• Common symptoms reported: <ul style="list-style-type: none"> <li>• Psychological symptoms relate to their experience of torture &amp; trauma: intense anxiety, poor sleeping pattern, depression</li> <li>• Post-traumatic stress disorder: poor concentration, heightened arousal &amp; loss of memory</li> <li>• Children often suffer prolonged psychological distress</li> <li>• These compounded by effects of detention, discrimination, lack of social support &amp; unemployment</li> <li>• Physical sequelae of torture or trauma: mal-united fractures, osteomyelitis, epilepsy or deafness from head injuries, or non-specific musculoskeletal pain or weakness</li> <li>• Infectious &amp; nutritional diseases</li> <li>• Chronic illnesses including hypertension, heart disease, diabetes peptic ulcer disease</li> <li>• Access improved by multidisciplinary staff, use of interpreters &amp; bilingual staff, no-cost or low-cost services, outreach services, free transport to &amp; from appointments, longer clinic opening hours, patient advocacy, &amp; use of gender-concordant providers</li> <li>• Provide services, which are affordable, appropriate &amp; acceptable to target groups</li> <li>• Coordination between the different healthcare services &amp; those responding to social needs of clients improved through case-management by specialist workers</li> <li>• Quality of care improved by training staff in cultural sensitivity &amp; appropriate use of interpreters</li> </ul> </li> </ul>
Lamb & Smith (31) 2002 Australia	Narrative review	Describe problems that refugees face in accessing effective healthcare & health service response	<ul style="list-style-type: none"> <li>• Barriers to attendance: <ul style="list-style-type: none"> <li>• Language</li> <li>• Lack of resource, interpreters</li> <li>• Financial constraints</li> <li>• Limited trust of health service</li> <li>• Lack of familiarity with available services</li> <li>• Gaps in health service provision</li> <li>• Inadequate reimbursement to healthcare professionals</li> <li>• Lack of specialized services, mainly in rural areas</li> <li>• Lack of model of care for special groups such as children, aged and second-generation refugees</li> <li>• Lack of standardization of eligibility for healthcare services due to different visa categories</li> </ul> </li> <li>• Refugees had different, mostly positive expectations of the pain rehabilitation program</li> <li>• Positive outcomes, such as improved health, improved coping ability and decreased pain, were expected</li> <li>• Positive general expectations of trust and hope in the rehabilitation professionals</li> </ul>
Persson & Gunvor (40) 2013 Denmark	Explorative qualitative interview study	Explore tortured refugees' expectations of the multidisciplinary pain rehabilitation program offered at rehabilitation centre	<ul style="list-style-type: none"> <li>• Refugees had different, mostly positive expectations of the pain rehabilitation program</li> <li>• Positive outcomes, such as improved health, improved coping ability and decreased pain, were expected</li> <li>• Positive general expectations of trust and hope in the rehabilitation professionals</li> </ul>
Stade et al. 2015 (39) Denmark	Qualitative before-after study	Explore the compliance, acceptability and treatment satisfaction using group basic body awareness therapy (BBAT) in traumatized refugees	<ul style="list-style-type: none"> <li>• High acceptability, compliance and satisfaction with BBAT</li> <li>• Reduction of somatic and psychiatric symptoms &amp; improved QoL, level of functioning and quality of movement</li> </ul>
Uribe Guajardo et al. (25) 2016 Australia	Retrospective observational study	Explore psychological distress in 2 samples of Iraqi refugees, those who recently arrived ( <i>n</i> = 225, average length of stay = 0.55 months) & those with a longer period of resettlement ( <i>n</i> = 225, average length of stay = 58.5 months)	<ul style="list-style-type: none"> <li>• Both group have significantly higher psychological distress compared with the general Australian population</li> <li>• Significant difference between groups, indicating study participants with longer periods of resettlement experienced higher levels of psychological distress than recent arrivals</li> <li>• Provision of assistance programs beyond the initial arrival period are required</li> </ul>

**Table I** *cont.*

Study year/Country	Design	Objective	Key themes/findings
Walsh NE & Walsh WS (33) 2003 Switzerland	Narrative review	Rehabilitation consequences of landmine injuries	Factor that impede adequate treatment: <ul style="list-style-type: none"> <li>• Limited accessibility of medical centres &amp; transport</li> <li>• Lack of protection for wounded people from travelling to disputed areas where hospitals are located</li> <li>• Lack of security</li> <li>• Politics &amp; administration constraints result in hindrance of delivery of appropriate medical care</li> <li>• Poverty</li> <li>• Limited education &amp; social structure</li> <li>• Financial constraints</li> <li>• Lack of interagency coordination</li> </ul>

BBAT: basic body awareness therapy; n=total number; NCDs: non-communicable diseases; QoL: quality of life; UK: United Kingdom; USA: United States of America