Canadian Collaboration for Immigrant and Refugee Health (CCIRH)

GUIDELINES FOR IMMIGRANT HEALTH

Appendix 11: Post traumatic stress disorder: evidence review for newly arriving immigrants and refugees

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ABSTRACT

Background: Exposure to premigratory traumatic events is common in refugees and non-refugee immigrants who have left their countries to escape socio-political turmoil. We conducted an evidence review to determine the burden of post traumatic stress disorder (PTSD) within immigrant and refugee populations, to evaluate the effectiveness of screening and treatment and to identify barriers for primary care.

Methods: Using the GRADE approach, we systematically assessed evidence on PTSD screening and treatments and reviewed evidence for clinical considerations and implementation issues for newly arriving immigrants and refugees to Canada.

Results: The prevalence of PTSD in refugees is approximately 9%, and, although comorbidity with depression is high, it generally has a favourable prognosis. Routine administration of brief screening tools for PTSD has yet to demonstrate clear benefits and could be harmful. The presence of unexplained somatic symptoms, sleep disorders, or of mental health disorders like depression or panic disorder however, should alert the practitioner to the possibility of PTSD. Culturally adapted psychological treatments appear promising for PTSD in refugees, but more research is needed. Pharmacotherapy is not recommended as a first line treatment although it may be helpful for severe sleep problems or co-morbid depression. In the case of asylum seekers a phased approach is recommended: interventions should focus on practical family and social supports, until safety has been objectively established. Subsequent treatment should address patient priorities including treatment of PTSD symptoms and support for social integration.

Interpretation: Primary care practitioners need to be aware that exposure to traumatic events is likely in newly arrived immigrants and refugees. Empathy, reassurance and advocacy are key elements to establish an alliance and provide a sense of safety. Partnership with community organisations help to reduce isolation and support social integration. A system of clinical and institutional support for the practitioners is needed to prevent compassion fatigue.

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Box 1: Recommendations on post traumatic stress disorder from the Canadian Collaboration for Immigrant and Refugee Health

Do not conduct routine screening for exposure to traumatic events because pushing for disclosure of traumatic events in well-functioning individuals may result in more harm than good.

Be alert for signs and symptoms of post traumatic stress disorder, especially in context of unexplained somatic symptoms, sleep disorders, or of mental health disorders like depression or panic disorder, and perform clinical assessment as needed to address functional impairment.

Basis of recommendation

- Balance of benefits and harms: Many persons having had a trauma exposure do fine once they find safety and social supports. Brief screening instruments overestimate the rate of disease because they focus on symptoms and do not measure functional impairment. Detailed inquiry and pushing for disclosure without indications of distress or disorder could be harmful. There are no clinical trials demonstrating the benefits of routine screening for PTSD.
- Quality of evidence: Low, evidence available from refugee populations
- Values and preferences: The Guideline Committee attributed more value to preventing potential harms from routine screening in the absence of clear evidence for benefits and determined PTSD was best dealt with by primary care practitioners remaining alert for signs and symptoms of PTSD and performing clinical assessment to address functional impairment.

The cases

Josef is an 8 year old recently arrived Rwandan refugee. He is referred to a family physician after passing out in his school classroom. He appears as a quiet and subdued child who complains of frequent stomach ache.

Somaya is a 40 year old woman from India, who arrived in Canada with her children to reunite with her husband who had been granted refugee status. The social worker, suspecting child neglect, finally met Somaya at home and found her profoundly depressed. She refers Somaya to a doctor.

How would you approach these patients?

Introduction

The traditional landscape of Canadian immigration has shifted markedly in the last decades. In 1961, 90% of

immigrants to Canada came from European countries, but after 1980 this figure declined to 25%, whereas the proportion of Asian, Latin American, Middle Eastern, and more recently, African immigrants have increased steadily.¹ A large proportion of new immigrants to Canada now come from countries experiencing a certain degree of social turmoil, and some are directly affected by protracted conflicts or war. Related to this, Canada receives a steady flow of refugees with significant exposure to premigratory trauma and loss,² many of whom experience important mental health consequences, including, in some cases, post traumatic stress disorder (PTSD).

Primary care practitioners have a key role in the recognition and management of PTSD in immigrant and refugee patients for three main reasons. First, general practitioners are the door of entry to health care for immigrants and refugees, who, as a group, underutilize mental health services in Canada.3 Second, immigrants and refugees report elevated rates of extreme traumas, such as torture and rape, that have severe and longlasting consequences for both physical and mental health and require integrated treatment approaches.^{4,5} Third, although a particular family member may present as the identified patient, a family perspective is essential because trauma stemming from organized violence tends to affect the whole family and, in particular, children, who may not display dramatic or easily recognizable symptoms. We conducted an evidence review to determine the burden of post traumatic stress disorder (PTSD) within immigrant and refugee populations, to evaluate the effectiveness of screening and treatment and to identify barriers for primary care.

Methods

We used the 14-step methods approach developed by the Canadian Collaboration for Immigrant and Refugee Health team.⁶ We constructed a Clinician Summary Table to highlight the epidemiology of PTSD in immigrant and refugee populations, and to determine clinical considerations and implementation issues (Appendix 2).

Search strategy for systematic reviews and guidelines and population-specific literature

We designed a search strategy in consultation with a librarian scientist to identify relevant systematic reviews and guidelines, as well as studies on the assessment and treatment of trauma among immigrants and refugees. We searched electronic databases from January 1, 2002 to January 1, 2006 for systematic reviews and updated reviews with searches (January 1, 2006 to December 31,

2010) (MEDLINE, Psychlit, CINAHL, Embase and Cochrane Database of Systematic Reviews). We further hand-searched websites to access recent PTSD guidelines on trauma management such as the Canadian Psychiatric Association, (http://www.cpa-apc.org/index.php), the American Psychiatric Association (http://www.psych.org/) and the National Institute for Clinical Excellence (NICE, UK) (http://guidance.nice.org.uk/CG89/Guidance/pdf/English) websites.

Synthesis of evidence and values

We synthesized evidence from systematic reviews and studies for psychological interventions using the GRADE quality assessment tool, which assesses study limitations, directness, precision, consistency and publication bias across all studies (Box 2). In the synthesis of data on clinical considerations, we identified both clinically relevant considerations and implementation issues relevant to our population. Finally, we identified gaps in the research evidence base.

Results

The search identified 16 systematic reviews (SR) relevant to immigrants and refugees and 5 guidelines (Appendix 1). We selected the National Institute for Clinical Excellence (NICE) guidelines (2005)for the management of PTSD in primary care⁷ as our anchoring review because of: (1) the systematicity, transparency, quality of methods and relevance of their background systematic reviews, (2) the emphasis on clinical rather than statistical significance, (3) the fact that, even in the absence of strong evidence, the guidelines include wide expert consultations and propose a number of avenues to address cultural and migratory issues. However, none of the intervention studies considered by the National Institute for Clinical Excellence (NICE) included evidence from studies with immigrants or refugees. Other key selected publications included four Cochrane reviews on PTSD treatment,8-11 the PTSD practice guidelines from the International Society for Traumatic Stress Studies, 12 and a recent systematic review on PTSD treatment of refugee and asylum seekers.¹³

What is the burden of illness of PTSD in immigrants and refugees?

Traumatic events are fairly common among adults and children in the general population, and most who experience traumatic events generally have a favourable mental health prognosis. 14 When symptoms of PTSD or Acute Stress Disorder develop, there is in most cases

substantial natural recovery in the months and years after the trauma (estimated at around 80%), however approximately one third of those developing PTSD may remain symptomatic for more than three years and are at risk of secondary problems, such as substance abuse. ¹⁵ A meta-analysis of 20 studies that included 6,743 adult refugees resettled in developed countries, reported that the prevalence of PTSD was 9%, and 5% had major depression. ¹⁶ Major depression was present among 44% of refugees with PTSD, and 71% of those diagnosed with major depression also had PTSD.

Five studies of 260 child refugees were reviewed, with a prevalence of 11% for PTSD. Level and duration of impairment were not reported, although other studies of refugees have reported that psychological symptoms often persist long-term^{17,18} and that symptoms may be reactivated when faced with new traumas or new stressors, particularly when they are reminiscent of earlier traumatic experiences.¹⁹ A recent meta-analysis of post conflict studies, after adjusting for methodological factors, reported torture and cumulative trauma were the strongest predictors of PTSD. Lack of residency status in the host country also had a significant impact.⁴

Despite the high rate of PTSD among refugees, most adult and child refugees experience good social adjustment.^{20,21} Longitudinal studies from Canada indicate that most adults and children with refugee status adapt well in spite of a high level of exposure to premigratory trauma.^{22,23} A population-based health survey from Quebec similarly found that non-refugee immigrants also experience high levels of premigratory trauma, which is associated with psychological distress, but that most immigrants are generally in good mental health.²⁴

Thus, most refugees who have been exposed to trauma are able to adapt reasonably well. However, outcomes are not uniformly good. Consequences vary with the nature of the trauma. For instance, torture survivors are at high risk for chronic physical and mental health problems. Outcomes may also relate to postmigration stresses experienced during the asylum-seeking process, such as fear of repatriation, which can exacerbate consequences of premigratory traumas. 25

Does screening for PTSD decrease morbidity and mortality for immigrants and refugees?

Screening

Several short PTSD screening instruments practical for primary care settings have been developed.²⁶ The 4 item primary care post-traumatic stress disorder (PC-PTSD)²⁷ and the Breslau's 7-item screening scale (available at

http://ajp.psychiatryonline.org/cgi/content/full/156/6/908#T2) are two simple means of identifying PTSD symptoms in primary care patients. In both cases there is empirical evidence that their sensitivity (respectively 78% and 85%) and specificity (87% and 84%) are good, but their cultural validity is unknown. However, the National Institute of Clinical Excellence (NICE) review⁷ and our updating search failed to identify any clinical trials that could determine the benefits and harms of routine screening, i.e. whether screening and treatment resulted in better PTSD outcomes than usual care. Many persons having had a trauma exposure do well once they find safety and social supports.²⁸

In general, very few screening instruments have been tested for diagnostic accuracy among immigrant and refugees and asylum seekers, and no instruments have documented good sensitivity and specificity with cutoff scores that have been shown to be accurate in more than a single group.²⁹ Thus, given the global picture of good social adjustment in refugees, and the lack of evidence for how to screen or whether it would produce greater benefit than harm, there is insufficient evidence to support using questionnaires routinely to screen for PTSD. However, it may be reasonable to use questionnaires to assist in symptom assessment as part of a more comprehensive evaluation when clinically warranted.

Clinical assessment of trauma and its consequences

Exploration of trauma and its consequences is not typically recommended in the first meeting with a patient unless it is the patient's primary complaint. Otherwise, exploration of mental health issues can be delayed to subsequent interviews when a trusting relationship has established.³⁰ However certain presentations should alert clinicians to assess for PTSD, including unexplained physical complaints that may not be presented as PTSD,^{17,31} but suggest the possibility of psychological distress and PTSD as differential diagnoses.³² Similarly, trauma and torture can lead to a wide range of psychological pathologies that have significant co-morbidity with PTSD. The most common are depression, panic disorder, and somatoform disorder.16,33 Other presentations, such as dissociation mimicking brief reactive psychosis, dissociative disorders (amnesia and conversion),34 and psychotic depression, although less frequent, may also be related to PTSD. Key elements of the assessment include the level of psychological distress, the impairment associated with the symptoms in the patient and his or her family, substance abuse, and suicidality. In children, particularly under age 8, the presence of sleeping,

emotional or behavioural problems should alert clinicians to the possibility of PTSD.⁷

Interviews should be carried in the presence of formal interpreters if the language ability of the patient is not adequate to express psychological distress and narrate their experience.^{7,35-37} Disclosing traumatic experience through relatives, family members or, particularly, through children can be traumatic and can discourage the patient from doing so.³⁵ Importance should be given to ensure the patient feels safe and understands the assessment will be kept confidential. General cultural competence and some familiarity with the cultural background of the patient is recommended. Assessment of children should be done directly in a culturally sensitive manner rather than relying solely on information from parents or guardians who may tend to minimize or ignore symptoms.

Relative benefits and harms of psychological treatment (adult – children)

The systematic review and meta-analysis that was conducted as part of the National Institute of Clinical Excellence (NICE) guidelines⁷ on PTSD psychological treatments including trauma-focused cognitivebehavioural therapy (CBT) and eve movement desensitization and processing (EMDR) evidence that these interventions provide reductions in PTSD symptoms compared to waiting list controls as measured by self-report instruments (CBT, 8 studies, n = 388, standardized mean difference [SMD] = -1.7, 95% CI -2.21 to -1.18; EMDR, 4 studies, n = 116, SMD = -1.1, 95% CI -2.42 to 0.23). We rated the quality of this evidence as low, downgrading for study limitations (lack of blinding, lack of reporting for harms) inconsistency of results (heterogeneity). Two recent reviews10,11 on the effectiveness Cochrane psychological treatments for PTSD also provide similar evidence of effectiveness, with similar findings to the National Institute of Clinical Excellence (NICE review.⁷

A recent systematic review¹³ has shown some evidence that psychological treatments [(Cognitive Behavior Therapy (CBT and Narrative Exposure Therapy (NET)] can reduce symptoms for PTSD among refugees. Ten Randomized Controlled Trials met the search criteria, but overall sample size was small (<50 subjects per arm) in all but 1 trial.³⁸ We rated this evidence as very low quality; downgrading due to study limitations (lack of blinding of participants, lack of reporting of harms), imprecision and inconsistency of results, and cultural validity of measurement instruments was also a concern. Although no treatment was firmly supported, there was evidence for CBT and NET.^{33,38,39} Other authors have

reported that patients may experience adverse effects with therapy, such as re-experiencing the traumatic event(s), and withdrawal rates of active therapy can approach 30%.⁴⁰

National Institute of Clinical Excellence (NICE)⁷ guidelines recommend that children and youth with PTSD be offered a course of trauma-focused CBT adapted to their level of development. Some non-randomized⁴¹ or partially randomized⁴² studies with immigrant and refugee children suggest that culturally adapted CBT may be efficacious, although more randomized controlled trails (RCTs) are needed to verify this.⁴³

Overall, more evidence is needed related to the effectiveness of psychological interventions for adult and child immigrants and refugees. Related to this, the use of culturally adapted psychological interventions raises questions about the specificity of the active ingredients in multimodal interventions that integrate traditional, spiritual and artistic healing modalities.^{44, 45}

Clinical considerations

What PTSD related screening is done during the migration process?

All immigrants and refugees to Canada undergo an immigration medical exam. The Immigration Medical Examination asks about "Any anxiety, depression or nervous problems requiring treatment." This examination is not linked to preventive services or follow-up for identified mental health problems.

What other interventions exist for trauma and PTSD?

Pharmacological treatment (adult - children): National Institute of Clinical Excellence (NICE)⁷ recommends that drug treatments for PTSD should not be used as a first line treatment, except in cases where adult patients express a preference not to engage in other forms of treatment. The authors of the NICE7 guidelines reported, based on their systematic review and metaanalysis, that effect sizes of pharmacological interventions for PTSD fell well short of what they considered to be a clinically important effect size of 0.5 in terms of standardized mean differences between groups. This is consistent with the results from a recent Cochrane review9 that included 35 short-term RCTs (4,597 participants). The Cochrane review found that PTSD symptom severity was significantly reduced in the medication groups, relative to placebo, although effect sizes were similar to those reported by the NICE review.7

In the case of significant comorbid depression or severe hyperarousal, paroxetin and mirtazapine are recommended by NICE⁷ for general use in primary care. Some early intervention trials have suggested that treatment with propanolol for PTSD may be promising, although there is not enough evidence to draw firm conclusions or for clinical use.⁴⁶ No appropriately designed trials have assessed the efficacy of pharmacotherapy in children or youth, or in immigrants and refugees with PTSD.⁷

Treatment of sleep problems: Sleep is often a major problem for PTSD patients, nightmares being one of the most frequent and disabling symptoms.⁴⁷ NICE recommend the short term use of hypnotic medication for adults or, if longer term treatment is required, the use of suitable antidepressants to reduce the risk of dependence (evidence based on expert committee reports or opinion, but not on directly applicable clinical studies of good quality). Trials of cognitive behavioural treatments of nightmares have very promising results,^{48,49} and although they have not been tested in refugee and immigrant patients, their mode of action (cognitive restructuring and replacing negative with positive appraisals) may coincide with the way in which certain cultures normalize nightmares rather than considering them symptoms per se.⁵⁰

Phased interventions for refugees and Asylum seekers: Although not supported by clinical trials, NICE⁷ recommends a phased model, reflecting a pragmatic clinical approach for refugee and asylum seekers who face the possibility of being returned to a traumatic environment. Phase I, is defined as the period in which safety has not yet been established and during which intervention should focus on practical, family and social support. Advocacy of health professionals to help establish a sense of safety may be key. Phase II and III should focus on patient priorities, which may include social integration and/or treatment of symptoms. Trauma-focused psychological treatment should be offered because it has been shown to be effective even years after trauma occurred.

There is some evidence that even for accepted refugees the effect of social factors like unemployment, isolation and discrimination may overshadow the efficacy of mental health treatment in many patients. ¹⁸ This adds support to the idea that a multilevel response to traumatic stress is warranted for refugee and immigrant populations, ⁵¹ suggesting that multifaceted interventions that include primary care, community organizations and other social institutions may be effective. ⁵²

What are the potential implementation issues?

Primary care practitioners need to be aware that immigrants and refugees may have undergone premigratory trauma. A warm and empathic stance is essential to creating a safe disclosure environment.⁵³ It is important to include an interpreter when language may impede accurate and empathetic communication.⁵⁴ The choice of interpreter (gender, ethnicity, religion) should be discussed with the patient. Interpretation over the telephone is not recommended because of the mistrust and shame often associated with a traumatic experience.

Assessment of traumatic symptoms cannot be separated from potential interventions. If a patient discloses a traumatic experience, acknowledging the pain and suffering associated with the experience may be helpful. Practitioners may explain that the reaction is common in persons who have undergone trauma (normalisation) and provide information. Practitioners might think about moving away from offering a "neutral" stance and adopting a clear advocacy position.⁵⁵ Offering empathetic reassurance that help will be provided and the situation is likely to get better is an important first step.⁵⁶

For refugee patients, practical, family and social support is most often provided in Canada by community organisations. Family physicians may find it helpful to establish partnerships with these organizations in order to reduce the isolation of families and to help them obtain support in the initial phases of resettlement. Whenever possible, reference to specialized resources to provide psychological trauma treatment is recommended if there is impairment or if symptoms persist after phase I. Most large Canadian multiethnic cities have such centers for the rehabilitation of torture survivors.

Treating refugee and immigrant patients with PTSD may involve a significant risk of empathic distress, compassion fatigue or burn out because of the strong affects that the transmission of the traumatic experience can evoke.⁵⁷ The following measures may support the clinician: training courses, peer supervision in a team setting and institutional support.⁵⁸

Other recommendations

National Institute for Clinical Excellence (NICE)⁷ recommends raising awareness of the possibility of trauma exposure in all primary care clinicians. They also recommend, for individuals who have experienced a traumatic event, that the systematic provision to that individual alone of brief, single-session interventions (often referred to as debriefing) which focus on the traumatic incident should not be routine practice when

delivering services. Because of the high prevalence of PTSD among refugees, the NICE⁷ recommends that consideration be given to the use of a brief screening instrument to detect PTSD among refugees and asylum seekers, but do not suggest any specific instrument for screening or provide information on the sensitivity or specificity of available screening tools for refugees or asylum seekers, nor do they provide evidence of effectiveness of treatment in refugees. The Centre for Disease Control (CDC) states that in general, the majority of people who experience reactions to stress after disasters and emergencies show resilience and do not go on to develop long-term psychopathology. However, in some survivors the symptoms do not resolve.⁵⁹

The cases revisited

Presenting symptoms trigger a clinical assessment that reveals that Josef and his parents have been witnesses to atrocities during the genocide. They escaped but the rest of the family was killed. The neurological exam is negative and a diagnosis of anxiety disorder is made. The family is offered therapy but they refuse. The family is referred to a community organisation which helps the father find a job and breaks the isolation of the mother by connecting her to a women's group. Simultaneously, the school offers reassurance to Josef and supports his drawing activities. The family's improved socioeconomic situation and the support provided to Josef contribute to alleviate the somatoform symptoms. Josef's case illustrates the fact that often, in children, presenting symptoms do not fulfill criteria for PTSD and that many refugee families are not willing to enter therapy. In such circumstances, non specific supportive interventions may often however be very helpful.

Somaya is screened for depression and diagnosed with major depression and prescribed an appropriate dose of a Selective Serotonin Reuptake Inhibitor (SSRI). This has little benefits, except for a small improvement in sleep. She discloses her feelings of shame to the female interpreter in the waiting room. The latter informs the doctor that she believes Somaya was raped when she was left alone without the protection of her husband who was targeted through her by his political enemies. The possibility of having experienced traumatic events before migration was discussed with Somaya who confirmed the raped but refused to disclose it to her husband. Somaya accepted psychotherapy and concurrently Somaya began to attend the temple.

Somaya's story shows common co-occurrence of PTSD and depression in a situation in which

surrounding sexual traumas hinder disclosure. The loss of Somaya's honour is more important to her than the loss of her physical integrity. The confidentiality of the dyadic setting offered by psychotherapy and the meaning associated with the PTSD diagnosis reassured her and brought about some symptom alleviation.

Conclusion and research needs

Evidence for the effectiveness of PTSD screening and treatment to reduce morbidity and mortality for refugees and immigrants is limited. In the absence of clear evidence for effectiveness, and considering the challenge of screening and treatment across cultures and the risk of causing harm for individuals without impairment in social or occupational functioning, we do recommend routine screening for immigrants refugees. Practitioners should acquire some degree of cultural competence and be aware of the precariousness of the asylum seeker situation. More research is needed determine the effectiveness of psychological interventions for migrating populations, to document the best ways to provide psychosocial support for migrants, to understand the role of cultural elements in the psychological treatment of trauma, and to test the efficacy of culturally acceptable modalities of treatment.

Key points

- 40% of Canadian immigrants coming from countries undergoing war or social turmoil have been exposed to traumatic events before migration.
- Most individuals (estimated at 80%) who experience traumatic events will heal spontaneously after reaching safety. However, around 44% of those who do develop PTSD are likely to simultaneously have depression.
- Empathy, reassurance and advocacy are key clinical elements of the recovery process.
- Pushing for disclosure of traumatic events for well functioning individuals could be harmful.

Box 2: Grading of Recommendations Assessment, Development and Evaluation Working Group grades of evidence (www.gradeworkinggroup.org)

High quality: Further research is very unlikely to change our confidence in the estimate of effect.

Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and could change the estimate.

Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.

Very low quality: We are very uncertain about the estimate.

REFERENCES

- Henry F, Tator C, Mattis W, Rees T. The colour of democracy: Racism in Canadian society. Canada HB, editor. Toronto: Harcourt Brace & Company; 1995.
- CIC. Citizenship and Immigration Canada Annual Report on Immigration. Canada; 2008 Contract No.: Document Number.
- Whitley R, Kirmayer L, Groleau D. Understanding immigrants' reluctance to use mental health services: a qualitative study from Montreal. Canadian Journal of Psychiatry. 2006;51(4):205-9.
- Steel Z, Chey T, Silove D, Marnane C, Bryant RA, van Ommeren M. Association of torture and other potentially traumatic events with mental health outcomes among populations exposed to mass conflict and displacement: A systematic review and meta-analysis. Journal of the American Medical Association. 2009 August 5, 2009;302(5):537-49.
- Carlsson JM, Mortensen EL, Kastrup M. A Follow-Up Study of Mental Health and Health-Related Quality of Life in Tortured Refugees in Multidisciplinary Treatment. The journal of nervous and mental disease. 2005;193(10):651-7.
- Tugwell P, Pottie K, Welch V, Ueffing E, Cambers A, Feightner J. Evaluation of evidence based literature and formulation of recommendations for Clinical Preventative Guidelines for Immigrants and Refugees in Canada. Canadian Medical Association Journal. in press (2010).
- National Collaborating Centre for Mental Health, Royal College of Psychiatrists' Research Unit. Post-traumatic stress disorder. The management of PTSD in adults and children in primary and secondary care. Excellence NIfC, editor. London: Gaskell and the British Psychological Society; 2005.
- Ipser J, Carey P, Dhansay Y, Fakier N, Seedat S, Stein D J. Pharmacotherapy augmentation strategies in treatment-resistant anxiety disorders. Cochrane Database of Systematic Reviews 2006(Issue 4. Art. No.: CD005473. DOI: 10.1002/14651858.CD005473.pub2.).
- Stein DJ, Ipser J, Seedat S. Pharmacotherapy for post traumatic stress disorder (PTSD) (Review). Cochrane Database of Systematic Reviews 2006(Issue 1.):Art. No.: CD002795. DOI:10.1002/14651858.CD002795.pub2.
- Roberts N, Kitchiner N, Knardy J, Bisson J. Early psychological interventions to treat acute traumatic stress symptoms. Cochrane Database of Systematic Reviews. 2010;17(3):CD007944.

- Bisson J, Andrew M. Psychological treatment of post-traumatic stress disorder (PTSD). Cochrane Database of Systematic Reviews. 2007;18(3):CD003388.
- Foa EB, Keane TM, Friedman MJ, Cohen JA. Effective treatment for PTSD Practice Guidelines from the International Society for Traumatic Stress Studies. Foa EB, Keane TM, Friedman MJ, Cohen JA, editors. New York: The Guilford Press; 2009.
- Crumlish N, O'Rourke K. A Systematic Review of Treatments for Post-Traumatic Stress Disorder Among Refugees and Asylum-Seekers. The Journal of Nervous and Mental Disease. 2010;198(4):237-51.
- Copeland WE, Keeler G, Angold A, Costello EJ. Traumatic Events and Posttraumatic Stress in Childhood. Archives General Psychiatry. 2007;64(5):577-84.
- Kessler RC, Sonnega A, Bromet E, al. Posttraumatic stress disorder in the Nation Comorbidity Survey. Archives of General Psychiatry. 1995;52:1048-60.
- Fazel M, Wheeler J, Danesh J. Prevalence of serious mental disorder in 7000 refugees resettled in western countries: a systematic review. The Lancet. 2005;365(9467):1309-14.
- Lustig SL, Kia-Keating M, Knight Grant W, Geltman P, Ellis H, Kinzie DJ, et al. Review of child and adolescent refugee mental health. Journal of the American Academy of Child & Adolescent Psychiatry. 2004;43(1):24-36.
- Carlson JM. Mental health and health-related quality of life in tortured refugees. Copenhagen, Denmark: University of Copenhagen; 2005.
- Association AP. Practice guideline for the treatment of patients with acute stress disorder and posttraumatic stress disorder. American Journal of Psychiatry, 2004;161(11):3-31.
- Sundelin Wahlsten V, Ahmad A, Von Knorring A-L. Traumatic experiences and posttraumatic stress reactions in children and their parents from Kurdistan and Sweden. Nordic Journal of Psychiatry. 2001;55(6):395-400.
- Tousignant M, Habimana E, Biron C, Maol C, Sidoli-LeBlanc E, Bendris N. The Quebec adolescent refugee project: Psychopathology and family variables in a sample from 35 nations. Journal of the American Academy of Child and Adolescent Psychiatry. 1999;38(11):1-7.
- 22. Beiser M. Strangers at the gate: The "boat people's" first ten years in Canada. Toronto: University of Toronto Press; 1999.
- Rousseau C, Drapeau A. Are refugee children an at-risk group?: A longitudinal study of Cambodian adolescents. Journal of Refugee Studies. 2003;16(1):67-81.
- Rousseau C, Drapeau A. Premigration exposure to political violence among independent immigrants and its association with emotional distress. The Journal of Nervous and Mental Disease. 2004;192(12):852-6.
- Momartin S, Steel Z, Coello M, Aroche J, Silove DM, Brooks R. A comparison of the mental health of refugees with temporary versus permanent protection visas. Medical Journal of Australia. 2006;185(7):357-61.
- Davis SM, Whitworth JD, Rickett K. What are the most practical primary care screens for post-traumatic stress disorder? The Journal of Family Practice. 2009;58(2):100-1.
- 27. Prins A, Ouimette P, Kimerling R, al. e. The primary care PTSD screen (PC-PTSD): development and operating characteristics. Primary Care Psychiatry. 2003;9:9-14.
- Turner S, editor. Evidence for Psychotherapy in PTSD. Rehabilitating Torture Survivors; 2008; Copenhagen, Denmark

- Hollifield M, Warner TD, Lian N, Krakow B, Jenkins JH, Kesler J, et al. Measuring trauma and health status in refugees. The Journal of the American Medical Association. 2002;288(5):611-21.
- Weinstein H, Dansky L, Iacopino V. Torture and war trauma survivors in primary care practice. West J Med. 1996 September 1996;165(3):112-8.
- Burnett A, Peel M. Asylum seekers and refugees in Britain: The health of survivors of torture and organised violence. BMJ. 2001;322:606-9.
- New Hampshire State. Guidelines for initial medical screening and care of refugees resettled in New Hampshire. New Hampshire department of Health and Human Services division of public health. 2005 July 2005.
- Hinton DE, Chhean D, Pich V, Safren SA, Hofmann SG, Pollack MH.
 A randomized controlled trial of cognitive-behavior therapy for Cambodian refugees with treatment-resistant PTSD and panic attacks: A cross-over design. Journal of Traumatic Stress. 2005;18(6):617-29.
- Van Ommeren M, de Jong JJT, Sarma B, Komproe I, Thapa SB, Cardena E. Psychiatric disorders among tortured Bhutanese refugees in Nepal. Archives of General Psychiatry. 2001 May 2001;58(5):475-82.
- Moreno A, Grodin MA. Torture and its neurological sequelae Spinal Cord. 2002;40:213-23.
- Ehntholt KA, Yule W. Practitioner review: assessment and treatment of refugee children and adolescents who have experienced war-related trauma. Journal of Child Psychology and Psychiatry. 2006;47(12):1197-210.
- Harris MF, B.L. T. The health needs of asylum seekers linving in the community. Med J Aust. 2001 December 2001;175(11-12):589-92.
- Neuner F, Onyut PL, Ertl V, Odenwald M, Schauer E, Elbert T. Treatment of Posttraumatic Stress Disorder by Trained Lay Counselors in an African Refugee Settlement: A Randomized Controlled Trial. Journal of Consulting and Clinical Psychology. 2008;76(4):686-94.
- Neuner F, Kurreck S, Ruf M, Odenwald M, Elbert T, Schauer M. Can Asylum-Seekers with Posttraumatic Stress Disorder Be successfully Treated? A Randomized Controlled Pilot Study. Cognitive and Behavioral Practice. 2009;39(2):81-91.
- Hackmann A, Ehlers A, Speckens A, Clark D. Characteristics and Content of Intrusive Memories of PTSD and the Changes with Treatment. Journal of Traumatic stress. 2004;17(3):231-40.
- Ehntholt KA, Smith PA, Yule W. School-based cognitive-behavioural therapy group intervention for refugee children who have experienced war-related trauma. Clinical Child Psychology and Psychiatry. 2005;10(2):235-50.
- Kataoka SH, Stein BD, Jaycox LH, Wong M, Escudero P, Tu W, et al. A school-based mental health program for traumatized Latino immigrant children. American Academy of Child & Adolescent Psychiatry. 2003;42(3):311-8.
- Wethington HR, Hahn RA, Fuqua-Whitley DS, Sipe TA, Crosby AE, Johnson RL, et al. The Effectiveness of Interventions to Reduce Psychological Harm from Traumatic Events Among Children and Adolescents. American Journal of Preventive medicine. 2008;35(3):287-313.
- 44. Hinton DE, Otto MW. Symptom Presentation and Symptom Meaning Among Traumatized Cambodian Refugees: Relevance to a Somatically Focused Cognitive-Behavior Therapy. Cognitive and Behavioral Practice. 2006;13:249-60.
- Ngo V, Langley A, Kataoka SH, Nadeem E, Escudero P, Stein BD. Providing evidence-based practice to ethnically diverse youths:

- examples from the cognitive behavioral intervention for trauma in schools (CBITS) program. Journal of the American Academy of Child and Adolescent Psychiatry. 2008 August 2008;47(8):858-62.
- Kindt M, al. Beyond extinction: Erasing human fear responses and preventing the return of fear. Nat Neurosci. 2009 March 2009;12:256.
- Spoormaker VI. A cognitive model of recurrent nightmares. International Journal of Dream Research. 2008;1(1):15-22.
- Spoormaker VI, Van Den Bout J. Lucid dreaming treatment for nightmares: a pilot study. Psychotherapy and Psychosomatics. 2006;75:389-94.
- Davis JL, Wright DC. Randomized Clinical Trial for Treatment of Chronic Nightmares in Trauma-Exposed Adults. Journal of Traumatic Stress. 2007;20(2):123-33.
- Rechtman R. L'apparition des ancêtres et des défunts dans les expériences traumatiques: introduction à une ethnographie clinique chez les réfugiés cambodgiens de Paris. Cahiers d'anthropologie et biométrie humaine. 1992;10(1-2):1-19.
- Silove D. Adaptation, ecosocial safety signals, and the trajectory of PTSD. In: Kirmayer LJ, Lemelson R, Barad M, editors. Understanding trauma: integrating biological, clinical, and cultural perspectives. New York: Cambridge University Press; 2007. p. 242-58
- Ekblad S, Jaranson J. Psychosocial rehabilitation In: Drozdek JWB, editor. Broken spirits. New York: Brunner/Routledge; 2004. p. 609-36
- Rousseau C, Measham T. Posstraumatic suffering as a source of transformation: A clinical perspective. In: Kirmayer LJ, Lemelson R, Barad M, editors. Understanding trauma: Integrating biological, clinical and cultural perspectives. Boston: Cambridge University Press; 2007. p. 275-93.
- Kirmayer LJ, Narasiah L, Munoz M, Rashid M, Ryder AG, Guzder J, et al. Common mental health problems in immigrants and refugees: General approach to the patient in primary care. Canadian Medical Association Journal - Journal de l'Association médicale canadienne (CMAJ/JAMC), 2010.
- Mollica RF. Society as Healer. In: Mollica RF, editor. Healing invisible wounds: Paths to hope and recovery in a violent world. Orlando: Harcourt; 2006. p. 214-40.
- Kennedy J, Seymour DJ, Hummel BJ. A comprehensive refugee health screening program. Public Health Reports. 1999 Sep-Oct 1999;114(5):469-77.
- Wilson JP, Thomas RB. Empathy in the treatment of trauma and PTSD. New York, NY: Brunner-Routledge - Taylor & Francis Group; 2004.
- Figley CR, editor. Compassion Fatigue. Coping with secondary Traumatic Stress Disorder in Those Who Treat the Traumatized. New York: Brunner/Mazel; 1995.
- 59. Centers for Disease Control and Prevention. Guidelines for Mental Health Screening during the Domestic Medical Examination for Newly Arrived Refugees 2011. Available: http://www.cdc.gov/migrantrefugeehealth/guidelines/domestic/mental -health-screening-guidlines.html. (accessed 2011 July 1)

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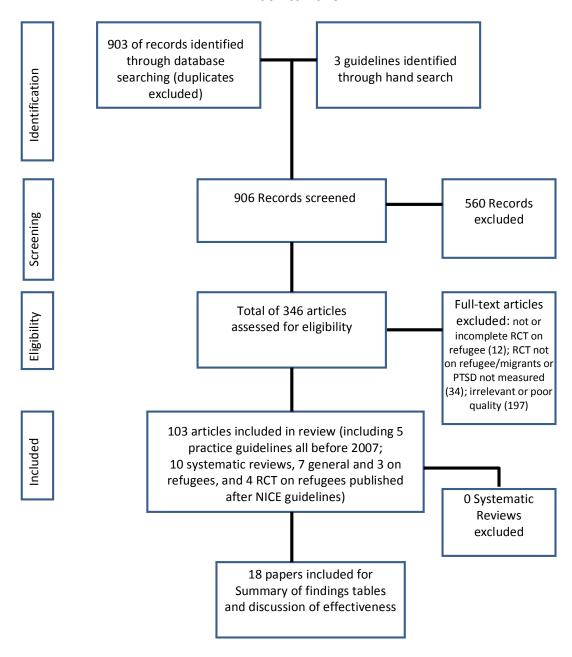
Clinical preventive guidelines for newly arrived immigrants and refugees

This document provides the review details for the CMAJ CCIRH PTSD paper. The series was developed by the Canadian Collaboration for Immigrant and Refugee Health and published at www.cmaj.ca.

More detailed information and resources for screening, assessment and treatment of depression can be found at: www.mmhrc.ca.

Appendix 1: Figure 1

Figure 1: Search and selection flow sheet from 2002 to 2006 and 2007 to 2010



Appendix 2: PTSD Evidence Based Clinician Summary Table

Do not conduct routine screening for exposure to traumatic events because pushing for disclosure of traumatic events in well-functioning individuals may result in more harm than good.

Be alert for signs and symptoms of post traumatic stress disorder, especially in context of unexplained somatic symptoms, sleep disorders, or of mental health disorders like depression or panic disorder, and perform clinical assessment as needed to address functional impairment.

Prevalence: Exposure to premigratory traumatic events is common in refugees and non-refugee immigrants. The prevalence of PTSD in refugees is around 9%, and, although comorbidity with depression is high, it has generally a favourable prognosis.

Burden: Trauma and torture can lead to a wide range of psychological pathologies that have significant co-morbidity with PTSD. Prolonged PTSD can lead to considerable mental health morbidity and risk of secondary problems, such as substance abuse.

Access to Care: Language difficulty and cultural modes of expressing distress may complicate recognition of post traumatic stress and limit treatment adherence. Attribution of distress to difficult life circumstances by patient or physician may lead to under-recognition and under-treatment.

Key Risk Factors for PTSD: Torture and cumulative trauma appeared as the strongest predictors of PTSD. Residency status in the host country also had a significant impact. Refugees and asylum seekers (refugee claimants) are at higher risk than other immigrants due to traumatic losses and stressors, including uncertainty about refugee status determination.

Screening: There is insufficient evidence to support for the systematic use of any questionnaire to screen for PTSD in migrant population nor whether screening would produce greater benefit than harm.

The presence of unexplained somatic symptoms or psychiatric symptoms should alert the clinician to assess the possibility of psychological distress and PTSD as differential diagnoses. Assessment should include the level of psychological distress, the impairment associated with the symptoms, substance abuse, and suicidality. In children, the presence of sleeping, emotional or behavioural problems should be sought. (See NICE Guidelines for PTSD: http://www.nice.org.uk/nicemedia/pdf/CG026quickrefguide.pdf)

Treatments: Psychological treatments are effective in reducing PTSD symptoms in the general population. Some evidence suggest that similar results may be expected in refugees. Pharmacotherapy is not recommended as a first line treatment, although it may be helpful for severe sleep problems or comorbid depression. Data is lacking on pharmacotherapy in children or youth, or in immigrant and refugee with PTSD.

Special Considerations:

- In asylum seekers a phased approach is recommended. Intervention may focus first on practical matters and safety. Subsequently, treatment can address patient priorities including treatment of PTSD symptoms and support for social integration.
- Psychotherapy and interpreting, if necessary, may be difficult to access especially in non-urban areas. Public
 access can also be limited. Cost for private psychotherapy may be prohibitive for newly arrived families.
 Transportation and regular appointments may disrupt attempts to integrate. Finally, the concept of
 psychotherapy is alien in several cultures.
- Several Nongovernmental Organizations offer adapted psychotherapy for torture survivors or other premigratory trauma. Psychotherapy for refugee claimants may be accessed through Interim Federal Health Program (http://www.servicecanada.gc.ca/eng/goc/interim health.shtml).
- The Multicultural Mental Health Resource Centre (http://www.mmhrc.ca) provides resources to improve the delivery of mental health services to Canada's diverse populations.