

## 12. Depression

Depression is a common and costly health care problem.<sup>383</sup> Nearly all people with major depression are seen only in primary care, but up to 60% of cases go undetected and untreated.<sup>384</sup> The level of underdiagnosis and inadequate treatment for depression is higher among migrants, who face cultural, linguistic and other barriers to accessing mental health care.<sup>385</sup> Although migration in itself does not lead to an increase in depression, specific stressors and challenges can contribute to the onset of depression or influence its course, particularly among refugees.<sup>386</sup> In general, immigrants to Canada have lower rates of depression than the general Canadian population, whereas refugees have comparable rates of depression but higher rates of post-traumatic stress disorder.<sup>387</sup> Over time, the rate of depression in immigrant groups increases to match that of the general population. We undertook this review to determine whether existing approaches to screening for depression are appropriate for immigrants and refugees and to identify strategies that could improve the quality of care. The recommendations of the Canadian Collaboration for Immigrant and Refugee Health on screening for depression are outlined in Box 12A.

### Box 12A: Recommendations from the Canadian Collaboration for Immigrant and Refugee Health: depression

If an integrated treatment program is available, screen adults for depression using a systematic clinical inquiry or validated patient health questionnaire (PHQ-9 or equivalent).

Link suspected cases of depression with an integrated treatment program and case management or mental health care.

#### Basis of recommendations

##### Balance of benefits and harms

The number needed to treat to prevent one case of persistent depression was 18 (95% confidence interval 10–91) in studies of 1–12 months' duration. Treatment in enhanced depression-care models accounts for an additional 1%–2% reduction in depressive symptoms relative to usual care. The prevalence of depression is similar among Canadians and among immigrants and refugees (10.7%), but access to care may be limited for migrants. No data on harms were reported, which would include patients' out-of-pocket costs and adverse effects of medication.

##### Quality of evidence

Moderate

##### Values and preferences

The committee attributed more value to screening and treating depression to improve quality of life and less value to concerns about impairing rapport in therapeutic relationships, cultural acceptability and potential stigma of diagnostic labels, the cost and inconvenience of additional follow-up assessments, and the possible adverse effects or costs associated with treating patients with an incorrect diagnosis.

Note: PHQ-9 = nine-item Patient Health Questionnaire.

## Methods

We used the 14-step approach developed by the Canadian Collaboration for Immigrant and Refugee Health<sup>16</sup> (summarized in section 3 of this article, above). We considered the epidemiology of depression in immigrant populations and defined clinical preventive actions (interventions), outcomes and key clinical questions. We searched MEDLINE, Embase, CINAHL, PsychLIT, the Cochrane Library and other sources from Jan. 1, 1998, to Jan. 1, 2010. Detailed methods, search terms, case studies and clinical considerations can be found in the complete evidence review for depression (Appendix 10, available at [www.cmaj.ca/lookup/suppl/doi:10.1503/cmaj.090313/-/DC1](http://www.cmaj.ca/lookup/suppl/doi:10.1503/cmaj.090313/-/DC1)).

## Results

Recommendations from the Canadian Task Force on Preventive Health Care<sup>388</sup> and the US Preventive Services Task Force<sup>389,390</sup> make scant mention of immigrants and refugees. In its guidelines for the treatment of depression,<sup>391</sup> the American Psychiatric Association notes that language and other cultural variables may hamper accurate diagnostic assessment and treatment; it also mentions ethnic differences in the response to pharmacotherapy. The guidelines of the UK National Institute for Health and Clinical Evidence include statements on ethnic variations in prevalence and on the importance of social and cultural factors in choice of treatment.<sup>392</sup> More recent studies, discussed in the complete evidence review (Appendix 10, available at [www.cmaj.ca/lookup/suppl/doi:10.1503/cmaj.090313/-/DC1](http://www.cmaj.ca/lookup/suppl/doi:10.1503/cmaj.090313/-/DC1)), provide evidence that can inform the implementation of screening for depression and integrated care for immigrants and refugees in primary care.

### What is the burden of depression in immigrant populations?

The Canadian Community Health Survey (version 1.2) revealed a lifetime prevalence of depression of 10.8% in the general population.<sup>393</sup> Immigrants who had arrived in Canada in the previous four years had the lowest rates of depression (3.3%–3.5%). Among those who had arrived 10–14 years ago (rate 8.5%) or more than 20 years ago (rate 6.8%–7.2%), rates were similar to those of the Canadian-born population.<sup>394</sup> Proficiency in English or French and employment status did not affect these rates. A meta-analysis of studies on serious mental disorders among refugees found rates of depression similar to those in the general population but much higher levels of post-traumatic stress disorder, often in association with depression.<sup>51</sup>

Pregnancy and the postpartum period have been associated with symptoms of depression in immigrant women.<sup>395</sup> Risk factors may include stressful life events, lack of social support

or isolation, physical health problems, inability to speak the language of the host country, the demands of multiple roles and separation from children who have remained in the country of origin.<sup>396,397</sup>

## Does screening for depression decrease morbidity and mortality?

### Screening tools

Many screening instruments for depression have been validated in primary care settings, and little evidence suggests that any particular instrument performs better than other instruments, although brief tools tend to be less specific.<sup>398</sup> Both brief screening tools (two or three items) and longer ones tend to have relatively high false-positive rates (60%–70%) when the prevalence of depression is 10%.<sup>399</sup> Therefore, positive results on screening must be confirmed by a full diagnostic interview. Most screening instruments have not been validated for many of the immigrant groups commonly seen in primary care in Canada, although the patient health questionnaire has been validated with Chinese, South Asian and other populations.

### Relative benefits and harms of treatment

In a systematic review of screening for depression conducted in 2002, the US Preventive Services Task Force found that clinical trials of integrated programs have demonstrated modest improvements in patient outcomes, but benefits have not been observed when screening results are simply reported to physicians without coordinated treatment and follow-up.<sup>400</sup> Subsequent reviews have confirmed this finding.<sup>401</sup> Adverse effects among immigrants have not been systematically studied, but they may include impaired rapport and less use of general medical services if patients believe they are being labelled and stigmatized or are being treated improperly, the cost and inconvenience of additional follow-up assessments, and possible adverse effects or costs associated with treating patients with an incorrect diagnosis.

In a recent meta-analysis, Gilbody and associates<sup>398</sup> found no benefit for screening alone, although there was some benefit in high-risk populations. However, a cumulative meta-analysis showed modest benefit when an integrated system of collaborative care was in place for follow-up (Table 12A).<sup>402</sup> In a low-quality longitudinal study conducted in the United States, Wells and colleagues<sup>403</sup> examined the effect of screening for depression within an integrated system of care, with follow-up by nurses and with other quality-associated improvements. The greatest improvement was seen for minority groups, specifically African Americans and Latinos.<sup>404</sup>

## Clinical considerations

### Screening

Screening should be conducted in a language in which the patient is fluent, either with translated instruments or through a trained interpreter. Cultural variations in presentation of symptoms, ways of coping and the stigma attached to mental health problems may complicate detection and treatment.<sup>405</sup> The presence of prominent somatic symptoms and patients' tendency to attribute their depressed mood to somatic distress can also reduce primary care physicians' recognition of depression.<sup>406</sup>

Among refugee patients with depression, more than half also have post-traumatic stress disorder, and this comorbidity can complicate the recognition of depression.<sup>51</sup> Many cultures strongly stigmatize mental health problems, which may limit disclosure of behavioural or emotional difficulties.<sup>405</sup> Depression can be distinguished from other forms of mental health problems and can be explained as a state of "energy depletion" and demoralization, which may provide a rationale for psychosocial assessment and treatment.

### Child-bearing women

Guidelines from obstetrical groups have proposed that women be screened for depressive symptoms in each trimester of pregnancy, at 1–2 weeks postpartum, and possibly at 2, 4, and 6

**Table 12A:** Summary of findings for effects of collaborative care for depression

**Patient or population:** Patients with depression

**Setting:** Primary care

**Intervention:** Collaborative care

**Comparison:** Usual care

**Source:** Gilbody S, Bower P, Fletcher J, et al. Collaborative care for depression: a cumulative meta-analysis and review of longer-term outcomes. *Arch Intern Med* 2009;166:2314-21.<sup>402</sup>

Outcome	Absolute effect		Relative effect (95% CI)	No. of participants (studies)	GRADE quality of evidence	Comments (95% CI)
	Risk for control group	Difference with collaborative care				
Depression at 6 mo*	See comment	0.25 (0.18–0.32)	NA	12 344 (35)	Moderate†	NNT 18 (10–91)

Note: CI = confidence interval; GRADE = Grading of Recommendations Assessment, Development and Evaluation; NA = not applicable; NNT = number needed to treat.

\*Standardized depression scales.

†Directness uncertain because the studies were conducted in the US health system setting, and it is unclear whether their results would apply to immigrants and refugees in the Canadian health care system.

months postpartum.<sup>407-409</sup> The Edinburgh Postnatal Depression Scale or nine-item patient health questionnaire have been used with immigrant women. Immigrant women's multiple roles in the home and the workplace may impede access to health services.<sup>395,396</sup> Availability of child care facilities, transportation and support from family members and spouses can facilitate their seeking help. Group meetings can be an effective way to provide social support and health-promotion information.

### Adolescents and children

The US Preventive Services Task Force has recommended screening adolescents (age 12–18 years) when integrated systems of treatment are available, including assessment, psychotherapy and follow-up.<sup>410,411</sup> It is unclear which of the more than 30 available depression scales is best for screening and diagnosing depression among immigrant and refugee youth.

### Elderly people

Migrant elderly people have not been well studied but may have a high risk of depression because of social isolation, loss of familiar surroundings and the changing nature of the family as members adapt to the new social context.<sup>412</sup>

### What are the potential implementation issues?

Linguistic and cultural differences may constitute substantial barriers to recognition of depression and subsequent treatment negotiation and delivery.<sup>413,414</sup> Medical interpreters, “culture brokers,” bilingual and bicultural mental health practitioners, clinician training in cultural competence and cultural consultation may mitigate these potential barriers.<sup>52,415-417</sup> Screening for depression produces benefits only when it is linked to an integrated system of care. An integrated system involves the following elements: systematic patient education, availability of allied health professionals to support continuity of care, frequent follow-up, a caseload registry to track patients, caseload supervision by a psychiatrist if indicated, stepped care and a plan for preventing relapse.<sup>418</sup> Stepped care involves a progression of levels from patient education and self-management to medication or psychotherapy and, for complex cases, referral to a mental health practitioner.<sup>419</sup>

The clinical relationship is central to detection and treatment of mental health problems in primary care. Screening with structured questionnaires cannot replace clinical sensitivity, systematic inquiry and relationship-building. Given the

great diversity of immigrant and refugee patients, no single approach is likely to be sufficient for optimal recognition and appropriate treatment of depression.

## Recommendations of other groups

The Canadian Task Force on Preventive Health Care recommends screening adults for depression in primary care when integrated systems that include diagnostic, treatment and follow-up components are in place.<sup>388</sup> The US Preventive Services Task Force recommends screening adolescents (age 12–18 years) when integrated systems of treatment, including assessment, psychotherapy and follow-up, are in place; however, it concludes that evidence is insufficient to make any recommendation for children 7–11 years of age.<sup>410,411</sup> Our recommendations highlight the value of screening for depression in the context of integrated treatment programs.

## Take-home messages

- Rates of depression are lower among new immigrants to Canada, but over time these rates generally rise to match the rate in the general population.
- The prevalence of depression among refugees is comparable to that in the general population.
- Existing guidelines for depression suggest that all patients should be screened for depression when integrated systems are in place to provide follow-up treatment.
- For immigrants, use information about depression in relevant languages, translated screening questions and trained interpreters, as well as systematic inquiries about losses, stressors and symptoms.
- Moderate to severe depression should be treated with a stepped-care model, beginning with psychoeducation and antidepressant medication, close follow-up and culturally appropriate counselling.

For the complete evidence review for depression in immigrant populations, see Appendix 10, available at [www.cmaj.ca/lookup/suppl/doi:10.1503/cmaj.090313/-/DC1](http://www.cmaj.ca/lookup/suppl/doi:10.1503/cmaj.090313/-/DC1).

More detailed information and resources for screening, assessment and treatment of depression can be found at: [www.mmhrc.ca](http://www.mmhrc.ca).

## 13. Post-traumatic stress disorder

A large proportion of new immigrants to Canada come from countries experiencing social turmoil, and some are directly affected by protracted conflicts or war.<sup>420</sup> Refugees and others who face significant trauma and loss are at risk for mental health consequences, including post-traumatic stress disorder. For three main reasons, primary care practitioners play a key role in the recognition and management of post-traumatic stress disorder in immigrants and refugees. First, immigrants and refugees underutilize formal mental health services.<sup>420</sup> Second, an integrated treatment approach is often needed for extreme traumas, common in refugees, such as torture and rape, which have severe and long-lasting consequences for both physical and mental health.<sup>421</sup> Third, a family perspective is essential because trauma stemming from organized violence tends to affect the whole family, particularly children, who may not display dramatic or easily recognizable symptoms. We conducted an evidence review to determine the burden of post-traumatic stress disorder within immigrant and refugee populations, to evaluate the effectiveness of screening and treatment, and to identify barriers for primary care. The recommendations of the Canadian Collaboration for Immigrant and Refugee Health on post-traumatic stress disorder are outlined in Box 13A.

### **Box 13A: Recommendations from the Canadian Collaboration for Immigrant and Refugee Health: post-traumatic stress disorder**

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 the context of unexplained somatic symptoms, sleep disorders or mental health disorders such as depression or panic disorder, and perform clinical assessment as needed to address functional impairment.

#### **Basis of recommendation**

##### **Balance of benefits and harms**

Many persons who have been exposed to trauma 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 post-traumatic stress disorder.

##### **Quality of evidence**

Low (evidence available for refugee populations)

##### **Values and preferences**

The committee attributed more value to preventing potential harms from routine screening in the absence of clear evidence of benefits and determined that post-traumatic stress disorder was best dealt with through primary care practitioners remaining alert for signs and symptoms of this condition and performing clinical assessment to address functional impairment.

## Methods

We used the 14-step method developed by the Canadian Collaboration for Immigrant and Refugee Health<sup>16</sup> (summarized in section 3 of this article, above). We considered the epidemiology of post-traumatic stress disorder in immigrant populations and defined clinical preventive actions (interventions), outcomes and key clinical questions. We searched MEDLINE, Embase, CINAHL, PsychLIT, the Cochrane Library and other sources from Jan. 1, 2002, to Dec. 31, 2010. Detailed methods, search terms, case studies and clinical considerations can be found in the complete evidence review for post-traumatic stress disorder (Appendix 11, available at [www.cmaj.ca/lookup/suppl/doi:10.1503/cmaj.090313/-/DC1](http://www.cmaj.ca/lookup/suppl/doi:10.1503/cmaj.090313/-/DC1)).

## Results

We identified 16 systematic reviews relevant to immigrants and refugees and five guidelines. We selected the 2005 guidelines commissioned by the National Institute for Clinical Excellence for the management of post-traumatic stress disorder in primary care,<sup>422</sup> but none of the selected intervention studies in those guidelines provided evidence for immigrants or refugees. We also selected four Cochrane reviews on treatment of post-traumatic stress disorder,<sup>423–426</sup> the practice guidelines from the International Society for Traumatic Stress Studies<sup>427</sup> and a systematic review on treatment of this condition in refugees and asylum seekers.<sup>428</sup>

### **What is the burden of illness of post-traumatic stress disorder in immigrant populations?**

Most persons who experience traumatic events have a favourable mental health prognosis.<sup>53</sup> When symptoms of post-traumatic stress disorder or acute stress disorder develop, there is, in most cases, substantial natural recovery (estimated at about 80%). However, those in whom post-traumatic stress develops may remain symptomatic for years and are at risk of secondary problems, such as substance abuse.<sup>54</sup> A meta-analysis of studies involving adult refugees resettled in developed countries reported a 9% prevalence of post-traumatic stress disorder, and 5% had major depression. Among refugees with major depression, 71% also had post-traumatic stress disorder. Conversely, 44% of refugees with post-traumatic stress disorder also had major depression.<sup>51</sup> Studies of child refugees report 11% prevalence of post-traumatic stress disorder.<sup>429,430</sup> Symptoms may be reactivated when faced with new traumas, particularly if reminiscent of earlier traumatic experiences.<sup>431</sup> Torture and cumulative trauma are the strongest predictors of post-traumatic stress disorder and are associated with chronic physical and mental health problems.<sup>430</sup> Fear of repatriation may exacerbate consequences of premigratory traumas.

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.<sup>432,433</sup> A population-based health survey from Quebec similarly found that non-refugee immigrants also experienced high levels of premigratory trauma, but that most immigrants were in good mental health.<sup>434</sup>

## Does screening for post-traumatic stress disorder decrease morbidity and mortality?

### Screening

Several short screening instruments practical for primary care settings have been developed.<sup>435</sup> The four-item primary care post-traumatic stress disorder screening scale<sup>436</sup> and the Breslau seven-item screening scale (available at <http://ajp.psychiatryonline.org/cgi/content/full/156/6/908#T2>) are two simple means of identifying symptoms in primary care patients. In both cases, their cultural validity is unknown. Very few screening instruments have been tested for diagnostic accuracy among immigrants, refugees and asylum seekers. However, it may be reasonable to use questionnaires to assist in identifying symptoms, as part of a clinical assessment when addressing functional impairment.

### Relative benefits and harms of psychological treatment (adults and children)

The systematic review and meta-analysis commissioned by the National Institute for Clinical Excellence<sup>422</sup> provided evidence that psychological treatments, including trauma-focused cognitive-behavioural therapy and eye movement desensitization and processing, reduce the symptoms of post-traumatic stress disorder. We rated the quality of this evidence as low because of study limitations and inconsistency of results. Two Cochrane reviews<sup>425,426</sup> provided similar evidence of effectiveness. A recent systematic review<sup>428</sup> showed that psychological treatments (cognitive-behavioural therapy and narrative exposure therapy) can reduce symptoms of post-traumatic stress disorder among refugees, but we rated this evidence as very low quality. Other authors have reported that patients may experience adverse effects with therapy, such as re-experiencing traumatic events, and rates of withdrawal from active therapy may approach 30%.<sup>437</sup>

## Clinical considerations

### What are the potential implementation issues?

Primary care practitioners need to be aware that immigrants and refugees may have been exposed to traumatic events. If a patient discloses a traumatic experience, it may be helpful to acknowledge the pain and suffering associated with the experience, to explain that a reaction is common for anyone who has undergone trauma and to offer empathetic reassurance that the situation is likely to get better. Several Canadian cities have centres and experts available to help care for survivors of trauma and torture.

Exploration of trauma and its consequences is not recom-

mended in the first meeting with a patient unless it is the patient's primary complaint. However, certain symptom presentations should alert clinicians to the need for assessment for post-traumatic stress disorder, including unexplained physical complaints, sleep disorders,<sup>422</sup> depression, panic disorder and somatoform disorder.<sup>51</sup> Other presentations, such as severe dissociation mimicking brief reactive psychosis, dissociative disorders (amnesia and conversion) and psychotic depression, although less frequent, may also be related to post-traumatic stress disorder. Key elements of the assessment include level of psychological distress, the impairment associated with the symptoms in the patient and his or her family, substance abuse and suicidality.

Familiarity with the cultural background of the patient is recommended, and assessment should involve a professional interpreter if the patient's language ability is inadequate to express psychological distress and narrate the experience.<sup>422</sup> Disclosing traumatic experience through relatives, family members or, particularly, children can be traumatic.<sup>438</sup>

Although not supported by clinical trials, the National Institute for Clinical Excellence<sup>422</sup> recommends a phased intervention model, reflecting a pragmatic approach for refugees 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. Phases II and III should focus on the patient's priorities, which may include social integration and/or treatment of symptoms. Unemployment, isolation and discrimination may overshadow the efficacy of mental health treatment in many patients,<sup>430</sup> which suggests that multifaceted interventions that include primary care, community organizations and other social institutions may be effective.<sup>432</sup>

## Recommendations of other groups

The UK National Institute for Clinical Excellence<sup>422</sup> recommends against routine systematic provision of brief, single-session interventions. It recommends that consideration be given to the use of a brief screening instrument to detect post-traumatic stress disorder among refugees and asylum seekers, but does not suggest any specific instrument for screening or provide evidence of effectiveness of treatment in refugees. It also recommends that children and youth with post-traumatic stress disorder be offered a course of trauma-focused cognitive behaviour therapy. For sleep disorders, the National Institute for Clinical Excellence recommends 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. For significant comorbid depression or severe hyperarousal, the National Institute for Clinical Excellence recommends paroxetine and mirtazapine. The US Centers for Disease Control and Prevention state that, in general, the majority of people who experience reactions to stress after disasters and emergencies show resilience and do not go on to experience long-term psychopathology.<sup>439</sup> Our recommendations highlight the paucity of evidence for routine screening and the potential for harms.

## Take-home messages

- Forty percent of Canadian immigrants and refugees from countries involved in war or with significant social unrest have been exposed to traumatic events before migration.
- Most (estimated at 80%) individuals who experience traumatic events heal spontaneously after reaching safety.
- Empathy, reassurance and advocacy are key clinical elements of the recovery process.
- Pushing for disclosure of traumatic events by well-functioning individuals may result in more harm than good.

For the complete evidence review for post-traumatic stress disorder in immigrants, see Appendix 11, available at [www.cmaj.ca/lookup/suppl/doi:10.1503/cmaj.090313/-/DC1](http://www.cmaj.ca/lookup/suppl/doi:10.1503/cmaj.090313/-/DC1).

More detailed information and resources for assessment and treatment of trauma and survivors of torture can be found at: [www.mmhrc.ca](http://www.mmhrc.ca).