



# Screening and Assessing Immigrant and Refugee Youth in School-Based Mental Health Programs

Authors: *Dina Birman and Wing Yi Chan*

According to the 2000 Census, 1 of every 5 children in the United States is a child of immigrants – either a child who is an immigrant or has at least one immigrant parent. While most children who experience mental health problems have limited access to help, children who have migrated to this country, especially under difficult circumstances, face particular challenges. Providers may be unfamiliar with their culture or the way that their culture understands mental health issues; children and their caregivers may not speak English, and the tools developed to identify and treat children with mental health needs may not have been tested for effectiveness with all populations. Dina Birman, PhD, and graduate student Wing Yi Chan begin our series of papers that will address what is known about best practice in providing school-based mental health services to children of immigrants and refugees. More information on this series and related resources is found at [www.healthinschools.org](http://www.healthinschools.org)

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**Caring Across Communities:**

Addressing the Mental Health Needs of  
Children of Immigrants and Refugees

**Issue Brief #1** | Screening and  
Assessing Immigrant and Refugee Youth in  
School-Based Mental Health Programs

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## Introduction

This paper provides an overview of screening, identification, and assessment tools and processes that can be used by practitioners and researchers who care for immigrant and refugee youth. We focus particularly on those tools useful in school-based settings. First, we review mental health needs of immigrant and refugee youth and highlight the kinds of issues they may present. Second, we summarize important issues to consider when determining the quality and suitability of screening and assessment measures. We then review existing tools and measures that have been developed to screen refugees and immigrants, as well as those instruments that have been adapted for this use. Finally, we summarize existing measures and issues to consider when conducting comprehensive assessments with these populations. The paper will also suggest ways that, in the absence of tools created for a specific refugee population, researchers and service providers can draw from existing tools and modify them to be more useful and appropriate for immigrant and refugee youth.

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**Schools provide a cost-effective, family-friendly opportunity to identify and treat mental health problems among immigrant and refugee students**

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### Mental health needs of immigrant and refugee youth.

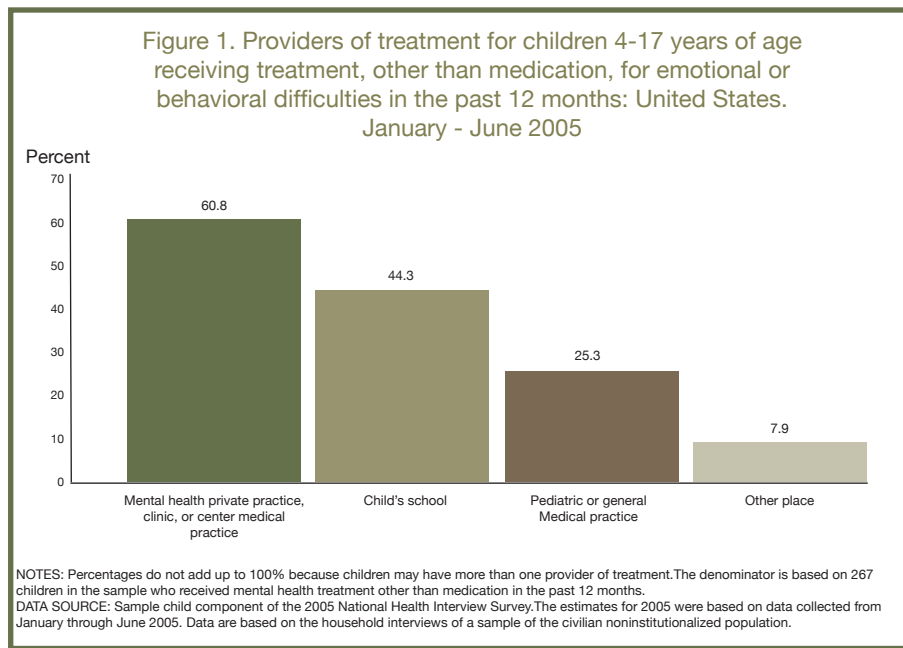
It has been estimated that over 10% of today's school children in the U.S. are immigrants (Fix & Passel, 2003). These immigrants constitute a diverse group. While 30.7% of all foreign-born residents are from Mexico, increasingly immigrants come from a variety of countries across the globe. In part this results from the Immigration Reform Act of 1965 but also is a product of global crises that generate a steady flow of 40,000 – 50,000 refugees annually to this country. Consequently, U.S. communities can become the recipients of a number of relatively small groups that represent widely diverse cultures. For example, in 2007 the U.S. resettled over 41,000 refugees from over 70 different countries (Office for Refugee Resettlement, 2008). Resources to support the adjustment of students from such relatively small groups may be particularly scarce. Ironically, while large ethnic communities are more likely to be the focus of attention in terms of programs and funding, it is the smaller groups who may require greater resources because of lack of infrastructure, cultural knowledge and linguistic resources to support these school children. In light of all this, attention to the diversity

of immigrant and refugee children in our schools is important.

*Migration stress.* As a whole, refugees and immigrants may be particularly vulnerable to mental health issues due to their migration, acculturation, and trauma experiences. Migration stress refers to the displacement and disorientation that comes with moving and adjusting to a new school and new friend or peer networks – all without the resources previously available from extended family, friends and neighbors. The separation from old support systems and loved ones can be extreme. These children and their families may have no opportunities to be in touch with those remaining in their country of origin. They may also be separated from fellow countrymen who resettled in other U.S. communities. With parents searching for work and attempting to reestablish support systems in the new country, it may be difficult for parents to create a sense of safety, predictability and structure for their vulnerable children.

*Acculturative stress.* Migration stress, described above, may be accompanied by acculturative stress -- adjusting to new circumstances in a new cultural context. The norms and rules of the new culture and country make it difficult to establish new family routines and cope with environmental stressors. In addition to language acquisition, there's the need to understand both expectations among school staff and among social peers. Because children frequently learn the new language and culture more quickly than their parents, the acculturation process may interfere with family functioning. The resulting conflicts and communications problems among immigrant family members have been well documented (Trickett & Jones, 2007).

*Traumatic stress* can be an additional stressor for refugees and some immigrants. Refugee children are likely to have had extensive exposure to traumatic events prior to migration and this exposure has been linked to a high prevalence of symptoms of mental disorder (Birman et al., 2005; Lustig et al., 2003). Refugee children may have experienced war and moved frequently in search of safety, often living in multiple refugee camps. Refugee camps themselves are often not only places of ethnic conflict and violence, but also may have food shortages and lack schools or organized activities for children. Once in the U.S., many refugees and immigrants may also experience traumatic events as they resettle in high poverty areas where housing is affordable but where they are vulnerable to higher crime rates (Kataoka et al., 2003).



Other conditions, such as learning disabilities or developmental disorders that may be largely unrelated to their migration experience may contribute to the mental health needs of immigrant and refugee children. However, migration and acculturative stress may exacerbate symptoms of these disorders.

*Under-identification of mental health needs.* Many refugee and immigrant children are not identified as needing mental health services for a number of reasons. There may be a reluctance to diagnose children from other countries because of difficulties determining whether any problems they face are due to cultural adjustment or symptoms of mental disorder. In fact, in many cases there are no tools available to accurately diagnose a child recently arrived from another country. While there are concerns about inaccurately diagnosing and potentially labeling newly arrived immigrant children, such reluctance to diagnose may lead to some children not receiving services they need. As a result, refugee and immigrant children who suffer from mental disorders are at risk for not receiving needed services.

*School-based screening and assessment.* Because immigrant and refugee children are at high risk both for mental health problems and for under-treatment, this population may benefit from targeted screening and assessment. Screening for symptoms of anxiety, depression and PTSD, as well as exposure to traumatic events, may be especially appropriate. The twin challenges to implementing a screening program are (1) that schools and mental health professionals are not commonly aware of the tools that are available and adaptable for use in school, and (2) tools that have been identified as effective have not been assessed for their appropriateness for use with immigrant and refugee populations.

This paper brings together what is known about these issues: what we know about reliable screening tools that can be used in schools and what we know about the adaptability of those tools to refugee and immigrant populations and their use in schools.

Schools provide a cost-effective, family-friendly opportunity to identify and treat mental health problems among immigrant and refugee students (Adelman & Taylor, 1999). In a recent review, Levitt et al. (2007) summarize the state of the science of school-based screening and assessment. The authors suggest that there are a number of reliable screening tools that have been developed and tested that can be used in schools. They also note important issues to consider when choosing a screening tool and implementing a screening protocol.

The remainder of this paper is divided into three sections. Section 1 summarizes the challenges and considerations relevant to screening immigrant and refugee children. Section 2 describes issues related to the continuum from screening to identification to assessment, and parental consent. Section 3 describes issues related to the screening instrument itself. This section addresses questions such as measuring efficacy and effectiveness and deciding which adults will provide reports on the child. Section 4 provides descriptions of specific broad, selective, and targeted measures and some considerations in using them to screen refugees and immigrants.

## Section 1. The Screening Process: Challenges and Considerations in Working with Immigrant and Refugee Children

### Selective v. universal screening

As suggested by Levitt et al. (2007), early identification of children who may need mental health services can be seen as part of a program of prevention that includes universal, selective, and indicated interventions (Mrazek & Haggerty, 1994). Universal interventions are concerned with preventing the onset of a disorder in a healthy population, whereas selective interventions are designed for those already identified as being at risk. Universal screening and early identification in school-based mental health initiatives involves an initial screening of all children attending a school to identify any signs of being at risk for a disorder, such as depressed mood or consistent behavioral problems. Alternatively, selective screening can be carried out with particular subgroups that have an elevated risk for developing mental health problems. Since immigrants and refugees are at risk for not receiving needed mental health services, conducting selective screenings in settings where there are large numbers can be a useful strategy.

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### Parental consent

A particular challenge to school screening involves parental consent. School systems differentiate between opt-in and opt-out policies. Opting-in refers to seeking active consent from parents to enroll their children in services or programs. Opting-out refers to passive consent, where parents are informed about a program or service and given the option to remove their children from participation (California Department of Education, 2007). These policies vary across school districts. For example, California Department of Education permits schools to use the opt-out policy for health screening of

students in seventh to twelfth grades but requires the opt-in policy for younger students. Opt-in policies can make it difficult to screen universally, since many parents may refuse or forget to sign the form.

Some screening procedures may be perceived as less intrusive and may not require opt-in consent. For example, teacher recommendations of children whom they are concerned about for further assessment (see description of this kind of screening below) may be considered an acceptable part of the teacher's job not requiring parental consent since a teacher is expected to refer students when there is concern about their functioning. As a result, identifying particular children as potentially in need of further assessment may not necessarily require opt-in or opt-out consent, at least as an initial step in the screening process.

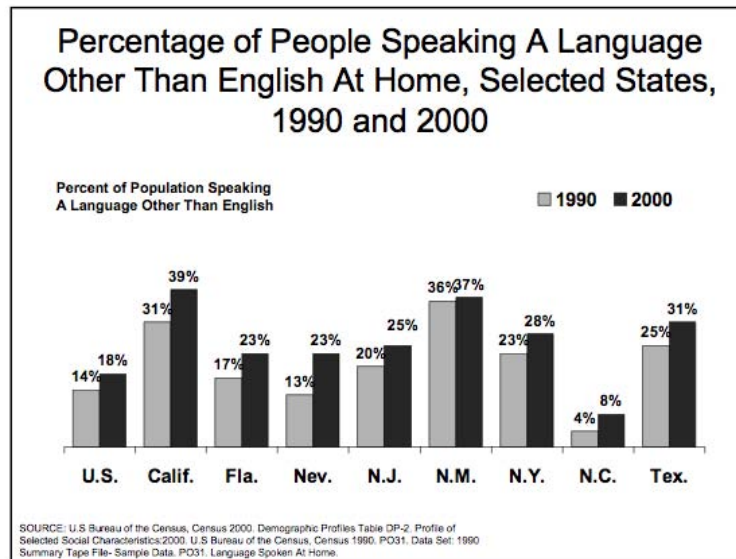
Informal universal screening for older students may be carried out in the context of health education classes that include content on mental health (Levitt et al., 2007). In such situations teaching students about symptoms of depression, anxiety, or PTSD, can be used as an informal procedure to introduce them to these concepts, and invite them to seek help from the school counselor or the school-based health center. Students may be invited to complete checklists with which they can rate themselves. They can then score these checklists themselves, and if their scores are high, they can be encouraged to seek help. Such procedures may be an acceptable way to conduct initial screening without seeking parental consent. That said, many communities in the past several years have taken the position that active opt-in parental consent for mental health screening in school is the preferred strategy (Stein et al., 2007).

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Parental consent is more complicated when it involves immigrant and refugee parents. The issue of what constitutes informed consent has been discussed extensively with respect to consent for research participation

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Parental consent is more complicated when it involves immigrant and refugee parents. The issue of what constitutes informed consent has been discussed extensively with respect to consent for research participation (Birman, 2005; Yu & Lieu, 1986). Consent-for-treatment documents may be con-



fusing even to native English speakers who are familiar with such forms. Immigrants and refugees, unfamiliar with such procedures, may not understand that participation in school mental health programs is voluntary. Indeed, parents may perceive the request to sign a consent form as a condition of enrolling their child in school.

Given this complexity, procedures are needed to ensure that immigrant and refugee parents are giving informed consent in these situations. It is unlikely that sending letters home requesting consent, even when they are translated into appropriate languages, will be adequate. The consent process itself needs to be an integral component of any proposed screening procedure for immigrant and refugee children.

## Summary

Those considering school mental health programs and the desirability of school-based screening efforts need to weigh carefully the risks and benefits. This is particularly true in assessing their value with immigrant and refugee children. As noted above, universal screening may not be the best option to detect mental health needs among immigrant and refugee students. Given the relative lack of screening instruments that have been translated and validated for use with many immigrant and refugee groups, it may be inappropriate to include them in universal screening procedures, unless modifications and safeguards are put into place to avoid labeling these students or increase the likelihood that problems being screened will be identified.

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While universal screening for mental health problems can have value because symptoms may be present that are not obvious to family members or school staff, selective or targeted screening of groups at risk may be a more efficient approach to identifying children with potential problems.

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While universal screening for mental health problems can have value because symptoms may be present that are not obvious to family members or school staff, selective or targeted screening of groups at risk may be a more efficient approach to identifying children with potential problems. Additional arguments for targeted screening include the possibility that broader “screening may unnecessarily label children with mental health diagnoses, identify more youth than a school or community can treat, and may lead to recommendations for medication which could place students at risk for adverse effects.” (Levitt et al, 2007). For all of these reasons, selective screening of immigrant and refugee students may be most appropriate. Settings where refugees and immigrants are commonly found, such as ESL classrooms or special after-school programs and summer camps run by refugee resettlement agencies, may be appropriate sites for selective screening.



# Table 1: Screeners Used with Immigrant and Refugee Children

Type of Measure	Name of Scale	Informant/Reporter	Originally developed for use with	Used with other groups	Languages administered in
<b>Broad:</b>					
Positive and Negative Behavioral Symptoms	Strengths and Difficulties Questionnaire (SDQ)	Teacher and Parent Report Youth Self-Report	European populations (Goodman, 1999)	Asian, South American refugee adolescents in Canada (Rousseau et al., 2007); Turkish, Pakistani, Somali adolescents in Norway (Oppedal et al., 2005)	Many languages including Arabic, Bengali, Czech, Khmer, Romanian (for a complete list, please go to <a href="http://www.sdqinfo.com/b3.html">http://www.sdqinfo.com/b3.html</a> )
Inventory of Socioemotional Adjustment	Child Self-Rating Scale	Child Self-Rating Scale	U.S. population (Hightower et al., 1987)	Bosnian adolescents (Layne et al., 2001)	Bosnian
<b>Selective:</b>					
Behavioral Problems & Social Competencies	Child Behavior Checklist (CBCL)	Teacher and Parent Report Youth Self-Report	U.S. population (Achenbach, 1986)	Central and South Americans (Sullivan et al., 2007); unaccompanied refugee minors (Bean et al., 2006); Middle Eastern refugees (Montgomery, 2008)	Many languages including Bosnian, Zulu, Russian, Thai, Croatian, Kosovar (for a complete list, please go to <a href="http://www.aseba.org/ordering/translations.html">http://www.aseba.org/ordering/translations.html</a> )
Adaptive and maladaptive behaviors, thoughts and emotions	Behavioral Assessment System for Children (BASC)	Teacher and parent report Youth Self-report	U.S. population (Reynolds & Kamphaus, 1992)	Latino kindergarten children (Flanagan et al., 1996)	Spanish
<b>Targeted:</b>					
Trauma exposure	Harvard Trauma Questionnaire	Self-report	Southeast Asian refugee adults (Mollica et al., 1992)	Bosnian adolescents (Jones & Kafetsios, 2005); Kosovar adolescents (Mohlen et al., 2005)	Vietnamese, Cambodian, Laotian, Japanese, Croatian, Bosnian
War trauma exposure	War Trauma Screening Scale Childhood War Trauma Questionnaire	Self-report Semi-structured interview	Lebanese children suffering from war trauma (Macksoud, 1992)	Bosnian, Somali adolescents (Kia-Keating & Ellis, 2007) Bosnian refugees (Layne et al., 1999) Lebanese children (Mackoud & Aber, 1996)	Bosnian, Somali
Community Violence	34-Item Life Events Scale (used as a screener for Cognitive-Behavioral Intervention for Trauma in Schools)	Self-report	U.S. population (Singer et al., 1995)	Latino immigrants (Stein et al., 2003) Korean, Russian, Armenian immigrants (Jaycox et al., 2003)	Spanish, Russian, Korean, West Armenian



# Screeners Used with Immigrant and Refugee Children:

*continued*

Type of Measure	Name of Scale	Informant/Reporter	Originally developed for use with	Used with other groups	Languages administered in
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**Targeted: continued**

Post Traumatic Stress Disorder (PTSD) symptoms	UCLA PTSD Reaction Index (PTSDRI)	Youth Self-report Parent version also available	U.S. population (Pynoos et al., 1998; Steinberg et al., 2004)	Bosnian adolescents (Layne et al., 2001) Somali adolescents (Ellis et al., 2006) Israeli adolescents (Pat-Horenczyk et al., 2007) Greek children and adolescents (Roussos, et al., 2005) Thai children (Thienkrua et al., 2006) Hispanic adolescents (Saltzman, et al., 2001)	Bosnian, Greek, Hebrew, Somali, Thai, Spanish
Anxiety/Depression	Hopkins Symptom Checklist – 25 (HSCL – 25)	Self-report	U.S. population (Derogatis, Lipman, & Covi, 1993) Adult Southeast Asian refugees - Vietnamese, Laotian, and Cambodian versions (Mollica et al., 1987)	Tibetan adult torture survivors (Lhewa et al., 2007) Refugee adults & adolescents from former Soviet Union (Persky & Birman, 2005; Birman et al., 2005)	Bosnian, Vietnamese, Laotian, Khmer, Russian, Tibetan
Depression	Depression Self-Rating Scale	Self-report	U.S. adolescents (Breitson, 1981)	Bosnian adolescents (Layne et al., 2001)	Bosnian

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## Section 2. Screening Instruments: Efficacy and Effectiveness

While many screening instruments (screeners) and processes have been developed for school-aged children, the situation with immigrant and refugee children is more complex. Levitt et al. (2007) apply concepts from the treatment outcomes literature of efficacy and effectiveness to evaluate the quality of existing screening and problem identification instruments. Efficacy is concerned with whether instruments are reliable, valid, and accurate in detecting symptoms of mental disorders. Effectiveness refers to whether it is feasible to use these instruments in real world settings such as schools; whether these instruments can be used with a student body that includes immigrants and refugees who speak a variety of languages, and whether the instruments can be used with students who may not have literacy skills in any language. Importantly, when considering screening immigrants and refugees, the line between efficacy and effectiveness may be blurred, since it is unlikely that a screening instrument developed in one cultural context will be valid, reliable and accurate in another.

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### Efficacy

Efficacy refers to the extent to which screeners are accurate in their ability to detect the presence or absence of disorders. In addition to needing to meet general criteria of reliability and validity<sup>1</sup>, *sensitivity* and *specificity* are of particular concern with screening instruments. The *sensitivity* of an instrument refers to its accuracy in detecting cases of mental disorders. The advantage of a sensitive instrument is that it is unlikely to miss those in a population who have symptoms of a disorder. However, the danger with overly sensitive instruments is that they may identify “false positives”, or over-identify those who potentially have a mental disorder. In contrast, *specificity* refers to the accuracy with which the instrument can identify those without presence of symptoms of a disorder. In this case, the more specific the measure, the more likely it is to miss potential cases.

When used with refugees and immigrants, there are special considerations in assessing the efficacy of screeners. For example, a screener may be deemed efficacious because it has been shown to successfully detect symptoms of disorders in a group of English-speaking U.S. students. However the efficacy of this measure may not have been tested cross-culturally. Since expression of symptoms of mental disorder may differ by culture (Ovitt, Larrioso & Nackerud, 2003), using an instrument developed in one culture with people from a different culture may result in low sensitivity and specificity of the measure. For example, Kleinman (1982) demonstrated that people in China suffering from depression had physical symptoms such as aches and pains rather than psychological ones such as feelings of guilt, suicidality, and difficulty concentrating thought to be associated with depression in Western countries. Thus a screener developed in the U.S. that contains questions about psychological symptoms may not be sensitive enough to detect depression in children coming from a different culture. Conversely, some screeners may be overly sensitive and incorrectly identify children as potentially in need of mental health services. For example, when a teacher is asked to assess student behavior with questions such as “is the child behaving appropriately in class,” a newly arrived immigrant or refugee child may appear to have symptoms of externalizing disorder on the measure, whereas, in fact, the child has simply not learned the rules or is not fully aware of expectations for classroom behavior in an American school. When screening results are treated with caution and followed by more comprehensive assessment, high sensitivity of a measure that results in over-identification of students may be less of a problem than missing mental disorders that could be addressed.

A few culturally appropriate screening measures have been developed specifically for particular refugee and immigrant groups. They are described in more detail in Table 1 and in the next section. However, even these measures may not be appropriate for use in schools. It is important to consider whether the context in which the measures were developed is relevant to the particular school or school system where they will be implemented. For example, the Hopkins Symptoms Checklists developed by Mollica et al. (1992) for Cambodian, Vietnamese, and Laotian refugees were developed for adults and may not work as well for children. Measures developed by Layne et al. (1999) were created for internally displaced Bosnian refugees and may not be appropriate for Bosnian refugees in U.S. schools. In other words, in almost all situations, it is important to have a process that checks the efficacy and effectiveness of screening instruments with representatives

of the local immigrant and refugee communities with which they will be used.

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Keating-Kia and Ellis describe a “community participatory approach” they used to ensure cultural sensitivity and relevance of their screening and assessment process with Somali refugees (Kia-Keating & Ellis, 2007). Research team members read articles, listened to music, and watched videos to develop a more in-depth understanding of Somali culture and history. They also attended Somali community events to gain access to the community and build trust with community members. Experienced and bilingual Somali physicians were hired as field staff as well. To encourage community participation, an advisory board composed of community leaders was formed to provide advice and feedback to the research team on issues associated with recruitment, consent forms, and interview procedures (Kia-Keating & Eillis, 2007). The authors suggest that feedback from members of the Somali community was beneficial when translating and adapting measures to ensure the validity of these measures. A secondary benefit of building relationships with the community was that immigrants and refugees were able to reveal personal information to mental health professionals despite a historic mistrust of authority figures (Kia-Keating & Ellis, 2007).

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Generally, screener effectiveness refers to ease of use of a particular measure, such as its age-appropriateness or clarity. For immigrants and refugees, the most important issue is having the screener available in the language of the immigrant child or parent.

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## Effectiveness

Generally, screener effectiveness refers to ease of use of a particular measure, such as its age-appropriateness or clarity. For immigrants and refugees, the most important issue is having the screener available in the language of the immigrant child or parent. Many of the measures commonly used in the U.S. have been translated into Spanish. However, finding measures in other languages may not be possible. Screening students from various ethnic groups in a school setting is particularly challenging. There are several measures that have been translated into multiple languages, such as the Child Behavior Checklist (CBCL) and the Strengths Difficulties Questionnaire (SDQ) (see Table 1). The SDQ in particular is widely used in numerous countries around the world and in Europe with immigrant populations.

There are situations, however, when no screening tools are available in the languages of particular immigrant and refugee groups. In most cases those wanting to conduct screenings translate existing measures into the appropriate languages. In such instances, there are principles of cross-cultural translation that can be used (Brislin, 1986). The most accurate approach requires two independent translators. The first translates the measure from English into the foreign language. The second translator, without having seen the original, translates the translation back into English. The researcher or practitioner who wishes to use the measure then compares the original English version with the back-translated

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### Special challenges arise when parents and children are not literate in their native language

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English version. If discrepancies exist, modifications to the translation may be needed. At this stage the two translators may come together to discuss the discrepancies and reach a consensus on the translation. Alternatively, additional translators may do the same.

There are also situations when measures may be available in the refugee/immigrant language, but the language may not reflect particular idioms and wordings understandable to the specific sub-populations. For example, a measure developed in Spanish in Mexico may not be appropriate for someone from Peru. Additional steps may be required to ensure effectiveness.

Special challenges arise when parents and children are not literate in their native language, as is the case with some refugee groups. In these situations, it may be helpful to rely on other “reporters” or “informants” on the child’s adjustment, such as the teacher. Alternatively, if available, a bilingual/bicultural mental health worker might conduct a brief interview with the child or parent.

However, regardless of the translation quality, whether provided by professional mental health interpreters, or more informally through a bilingual mental health worker, even excellent translations may not be sufficient to assure efficacy.

A potential advantage of teacher or other school personnel completing screening measures is that they are English speaking, and therefore will not need translation assistance. However, all the cautions noted above would apply in this situation as well. Just because teachers and other school personnel are able to complete measures does not mean they have the cultural knowledge to accurately and appropriately detect the presence of symptoms. Teachers may need training to understand the cultural context of specific populations in order to correctly identify potential problems.

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## Different informants

Another issue relevant to both efficacy and effectiveness is that screeners vary by who is the informant, or who responds to questions posed by the questionnaire. Typically, informants may be the child her/himself, a parent, a teacher, or other school personnel such as a school nurse. For younger children, it is common to rely on parent or teacher report in completing screening instruments. For older children it is more common to use self-report. Teachers of adolescents are less likely to be accurate “informants” because they do not know their students as in elementary school because students change classes frequently and do not remain with the same teachers throughout the school day. Further, because a youth’s feelings of distress and despair may be hidden and not obvious to others, self-report instruments may be more accurate measures of internalizing disorders, and children tend to self-report higher internalizing symptoms than their parents (Rey et al., 1992). For externalizing disorders teachers are frequently used as reporters because the behaviors are observable and can lend themselves to being assessed reliably by others (Epkins, 1993).

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### Section 3. Types of Screeners: Broad, Targeted, and Selected Screeners

There are a range of screening measures that have been used with refugees and immigrants and can be used in schools. A literature review was conducted to identify screening and assessment tools developed for or used with refugee and immigrant children and adolescents<sup>2</sup>. A summary of these screening instruments is presented in Table 1. We have included all measures identified as having been used with immigrants or refugees in school-based programs and added other measures used with adult refugees and immigrants or with non-immigrant students that could potentially be used with the target populations.

This review of screening tools uses categories suggested by Levitt et al. (2007) who described broad, selective, and targeted measures. Broad measures are designed to screen for child behavior or emotions that may place the child at risk for mental disorders. These tools are not designed to screen for any specific diagnosis, or even the presence of a mental disorder. Rather, these broad or universal screeners identify children who are experiencing emotional or behavioral problems that may or may not stem from a mental disorder. Selective measures, on the other hand, are more specific for detecting a spectrum of symptoms that may be indicative of a range of disorders, such as externalizing or internalizing disorders. Targeted measures are designed to detect symptoms of specific disorders such as depression or PTSD. Importantly, targeted and selective measures may be used universally, such as when used to detect very high risk though low incidence conditions, such as suicidality. The targeted, selective, and broad measures that have been or could be used with refugees and immigrants are described below.

#### Broad screening measures

Broad measures are designed to identify emotional and behavioral problems that are not necessarily symptoms of mental disorder.

**Strengths and Difficulties Questionnaire (Goodman, 1999).** The Strengths and Difficulties Questionnaire (SDQ) is a brief behavioral screening for 3 – 16 year olds. It consists of 25 items that include both positive and negative behaviors. The 25 items are organized into 5 scales: 1) emotional symptoms, 2) conduct problems, 3) hyperactivity/

inattention, 4) peer relationship problems and 5) pro-social behaviors. Respondents are asked to rate each item as “not true”, “somewhat true” or “certainly true” as it applies to the child. Scoring of the scales and report generation are available online at [www.sdqscore.net](http://www.sdqscore.net). The questionnaire is available in three versions: teacher, parent, and youth self-report. The SDQ is particularly advantageous as a broad screening tool because it is brief and includes both strengths and problematic behaviors. The questionnaire is available online in 66 languages. The website also provides technical support to users. Researchers have used the SDQ with Pakistani, Turkish, and Somali adolescent refugees (Oppedal et al., 2005) and Asian and South American adolescent refugees (Rousseau et al., 2007). In both studies, researchers reported satisfactory reliability. However, more research is needed to determine the cross-cultural validity of SDQ (Woerner et al., 2004).

**Child Self-Rating Scale (Hightower et al., 1987).** The Child Self-Rating Scale (CSRS) is a 40-item self-report measure of socio-emotional adjustment of children and adolescents. It was originally developed in the U.S. for use with White, Black and Hispanic children (Hightower et al., 1987). The scale consists of 4 subscales: 1) rule compliance-acting out, 2) anxiety-withdrawal, 3) friend-peer relationships, and 4) school interest. Items are rated on a 4-point Likert scale ranging from 0 (almost never) to 3 (almost always) to measure the frequency of behaviors. Layne et al. (2001) adapted the measure for Bosnian adolescent refugees and reported satisfactory internal consistency across subscales.

**Pediatric Symptom Checklist (PSC).** The PSC is designed to alert clinicians early to difficulties in functioning that may indicate current or potential psychosocial problems. It can be used in primary care settings during a doctor’s visit, or adapted for other situations. As is true of other screeners, the PSC is used only as a screening tool and not to diagnose or measure effectiveness of treatment interventions. Administration of the PSC requires that parents respond to 35 items that may be applied to children and adolescents ages 6-16. The measure is available free in English and Spanish. Translations into Creole, Mandarin Chinese, and Swahili have also been made. The PSC takes 5-10 minutes to complete. Good convergent validity with other measures, such as the Child Behavior Checklist, internal consistency, and specificity and sensitivity have been reported (see [http://psc.partners.org/psc\\_order.htm](http://psc.partners.org/psc_order.htm)).

**Teacher Nominations.** Although there are no reports of using this screening technique with refugees and immigrants,

teacher nominations can be an excellent, non-intrusive approach to identify students potentially in need of services. Teacher nominations may be used as a universal screener within the school or as a selective screener in settings where there are many immigrants/ refugees. The teacher nomination process generally begins with an initial broad universal screener, using a formal checklist, or less formally, by asking teachers to nominate children they are concerned about. For example, elementary school teachers may be asked to nominate three students in their classes that they are concerned about who exhibit externalizing or internalizing symptoms (Todis, Severson, & Walker, 1990). Teachers could be asked to rank them in order of concern to determine those at highest risk and nominate them for further assessment (Atkins et al., 2006).

Other school personnel may also be asked to nominate students who are exhibiting symptoms. Some students may express their distress somatically. In both situations, teacher and other school personnel nominations should be considered as informed “guesses”, not diagnoses. Parental consent will be necessary to conduct a formal assessment.

Teacher and other school personnel nominations have the advantage of being relatively non-intrusive and may not require parental consent. However, effective screening requires providing teachers and school personnel with some guidelines for what kind of symptoms to look for.

### Selective screening measures

Selective measures aim to detect a broad spectrum of symptoms of disorder. The best example of a selective measure is the Child Behavior Checklist.

**Child Behavior Checklist (CBCL, Achenbach, 1991).** The CBCL is a widely used behavioral screening tool for children and adolescents. It measures internalizing and externalizing behaviors. Items are rated on a 3-point Likert scale ranging from 0 (not true) to 2 (very true or often true). There are multiple versions of the inventory for children of varying ages and for different informants. For school-age children there are Parent, Teacher and Youth Self Report versions (For details, please visit <http://www.aseba.org>). The CBCL has been studied extensively and used with Western European and North American populations. Researchers have questioned the validity and usefulness of it with immigrant and refugee populations. Geltman and colleagues (2000) argue that CBCL items do not correlate with traumatic symptoms and the CBCL is only useful when researchers wish to com-

pare immigrants and refugees to the norms developed for Western populations. However, the CBCL has been translated into multiple languages. Researchers in the Netherlands used it with unaccompanied minors and the Dutch version of the Teacher’s Report Form demonstrated good internal consistency (Bean et al., 2006). A Danish and an Arabic versions of the CBCL were used with refugee children and parents from Iran and Iraq and both demonstrated good internal consistency (Montgomery, 2008).

**Behavioral Assessment System for Children (Reynolds & Kamphaus, 1992).** The Behavioral Assessment System for Children (BASC) measures behaviors, thoughts, and emotions of children and adolescents. One advantage of the BASC is that it evaluates both adaptive and maladaptive behaviors. There are five components of the BASC: 1) self-report scale, 2) teacher rating scale, 3) parent rating scale, 4) structured developmental history and 5) classroom observation. A 1996 study showed that the BASC is valid for Latino kindergarten children (Flanagan et al.). However, Wilder and Sudweeks (2003) cautioned about the use of BASC with minority populations in the U.S. because studies have not reported complete findings of reliabilities of the measure for these populations.

### Targeted screening measures

Given the prevalence of traumatic experiences among refugees in particular, it may be appropriate to screen for exposure to traumatic events. One advantage of using screeners for exposure to traumatic events is that it avoids issues of cross-cultural equivalence, since the scales are factual. Therapists should keep in mind that some children and adolescents may not wish to reveal past trauma, particularly if it involved sensitive issues such as sexual assault or domestic violence. Moreover, asking a child about past traumatic events may give rise to post traumatic reactions, and those administering these measures should be prepared to provide support if that occurs.

Additional targeted screeners include checklists that assess presence of symptoms of specific disorders, such as depression, anxiety or PTSD. Some of these screeners provide a cut-off score to determine prevalence of clinical levels of the disorder. Given problems with cross-cultural validity, it may not be appropriate to use the cut-off scores to determine levels. If cut-off scores are used, they should be treated as ballpark figures.

**The Harvard Trauma Questionnaire.** This measure assesses exposure to traumatic events and presence of PTSD

symptoms. It was developed for adult Southeast Asian Former Political Prisoners (Mollica et al., 1992). The measure is composed of 4 parts: a) traumatic life events; b) personal description of traumatic events; c) assessment of possible brain injury and d) posttraumatic symptoms.

On the events portion of the questionnaire, participants are asked to indicate whether they had experienced, witnessed, or heard about each traumatic event. The original version included 16 events. Participants are then asked to describe the most traumatic event(s) they had experienced. Finally participants are asked if any of the traumatic events may have led to head injury. The symptom portion of the Harvard Trauma Questionnaire includes 16 PTSD items that were derived from DSM-IV criteria for PTSD and 24 items that relate to the effects of trauma on one's daily functioning. All items from the posttraumatic symptoms list are rated on a 4-point Likert scale (1 = not at all, 2 = a little, 3 = quite a bit, 4 = extremely).

This measure has been translated into multiple languages including Arabic, Bosnian, Cambodian, Japanese, Laotian, and Vietnamese, and adapted for a variety of traumatic experiences including for Japanese survivors of the 1995 Kobe earthquake, Croatian soldiers who survived the wars in the Balkans, Bosnian civilian survivors, Tibetan refugees, and Iraqi refugees (Lhewa et al., 2007; Mollica et al., 2004; Shoeb, Weinstein, & Mollica, 2007). However the types of traumatic events in the original 16 items were created specifically for adult Southeast Asian refugees, and the authors caution that the number and types of traumatic events assessed vary depending on the experience and culture of the group of interest (Mollica et al., 2004). Thus, in order to be applicable for other refugee groups and to children, items that reflect different experiences may need to be added or substituted.

#### **The War Trauma Questionnaire (Macksoud, 1992).**

The War Trauma Questionnaire was originally designed for Lebanese children who had experienced civil war. After interviewing Lebanese families from different religious and economic backgrounds, Macksoud (1992) constructed a scale of 45 traumatic events that had been commonly experienced by Lebanese children. Sample items include forced change of home, separation from mother, death of a person close to the child and exposure to shooting. The 45 events were grouped into 10 categories: 1) exposure to shelling or combat, 2) separation from parents, 3) bereavement, 4) witnessing violent acts, 5) suffering physical injuries, 6) victim of violent acts, 7) emigration, 8) displacement, 9) involvement in the hostilities, and 10) extreme deprivation. The clinician asks the

child whether he/she had experienced any of the 45 events. If the answer is no, the score is 0; if the answer is yes, the score is 1. Thus, the minimum score of the scale is 0 and maximum is 45. For children who are too young to complete this form themselves, the clinician would ask the questions and complete the form. The War Trauma Questionnaire was designed for Lebanese children who experienced a particular war. It has not been reported as used with other groups.

**The CBITS screener.** Cognitive-Behavioral Intervention for Trauma in Schools (CBITS) is a group intervention designed for inner-city populations to address community violence. It consists of 10 sessions of cognitive behavioral techniques (CBT). CBITS addresses symptoms of PTSD, anxiety, and depression as a result of exposure to community violence. It is available in multiple languages to meet the needs of the multicultural clients of inner-city mental health clinics. It has been used with immigrants from Mexico, El Salvador and Guatemala (Kataoka et al., 2003) and Korea, Russia and West Armenia (Jaycox et al., 2002). To determine eligibility for the intervention, a modified version of the 34-item Life Events Scales (LES) is used to identify participants who have experienced community violence (Stein et al., 2003). The modified 34-item LES is an inventory of 34 traumatic events and it has been reported to have acceptable reliability with elementary, middle, and high school students (Singer et al., 1995, 1999). Respondents are asked whether they have experienced multiple types of violence (slapping, hitting, punching; beatings; knife attacks; and shootings) and how frequently they had experienced these events. Respondents are asked to rate the frequency as “never”, “sometimes”, “lots of times”, or “almost every day”. This screening has been used with a diverse sample of immigrants, including Latino (Stein et al., 2003) and Korean, Russian, and Armenian (Jaycox et al., 2002).

**PTSD-Reaction Index (Pynoos et al., 1998).** The University of California at Los Angeles Posttraumatic Stress Disorder Reaction Index (UCLA-RI) is designed to assess symptoms of PTSD during the past month, consistent with the diagnostic criteria in the DSM IV (Steinberg et al., 2004). The child/adolescent self-report version is intended for children age 7 – 18, and consists of 22 items that are rated on a 5-point Likert scale ranging from 0 (none of the time) to 4 (most of the time). It is recommended that the instructions and questions be read aloud to children under the age of 12 or to youth with known reading comprehension difficulties. Time for completion of the instrument is estimated to be approximately 20 to 30 minutes.

The measure was not originally developed to assess distress experienced by immigrants and refugees; however, it has been translated into many languages and used in many different countries, as well as with language minority groups. For example, the scale has been used following war time violence with internally displaced Bosnian refugees (Layne et al., 2001), as well as children in Kuwait (Nader et al., 1992), Israel (Laor et al., 1997), Palestine (Thabet & Vostanis, 2000), and Lebanon (Macksoud & Aber, 1996). It has also been used following natural disasters with Nicaraguan hurricane survivors (Goenjian et al., 2001), and earthquake survivors in Greece (Roussos, et al., 2005), Turkey (Laor et al., 2002), Taiwan (Chen et al., 2002), and Armenia (Goenjian et al., 2000). Most recently, the tool has been used successfully with Somali refugees in the U.S. (Ellis et al., 2006). Steinberg et al. (2004) report that a large number of studies across cultural contexts document good validity and reliability of the scale with respect to both internal consistency and test-retest reliability.

**Hopkins Symptom Checklist (HSCL)-25 (Derogatis et al., 1978).** The HSCL is a shortened version of the Symptom Checklist (SCL-90), a more comprehensive 90-item inventory (Derogatis, Lipman & Covi, 1973). The 25 HSCL items tap into two dimensions of distress: depression (15 items) and anxiety (10 items). An alternative 21-item version has also been validated (Green, Walkey, McCormick, & Taylor, 1988). HSCL is a self-report inventory and items are rated on a 5-point Likert scale ranging from 1 (not at all) to 4 (extremely). The mean score of all items is used as an index of overall psychological distress. Mollica and colleagues developed and validated Cambodian, Vietnamese, and Laotian versions of the measure for use with adult Southeast Asian refugees (Mollica, Wyshak, de Marneffe, Khuon, & Lavelle, 1987). In addition, translated versions of the checklist have been used with many different populations, including Bosnian adult refugees (Ovitt, Larrison & Nackerud, 2003), Tibetan adult torture survivors (Lhewa et al., 2007), and refugee adults (Perry & Birman, 2005) and adolescents (Birman et al., 2005) from the former Soviet Union with good reliability.

**Depression Self-Rating Scale (Birleson, 1981).** This scale was developed to measure depression in childhood. It is an 18-item self-report tool. The tool has been widely used by UNICEF in the Balkan region (Layne et al., 2001). The child is asked whether each statement applies to him/her over the previous week and how often did the event occur. Scores of 0, 1, and 2 represent “never”, “sometimes”, and “most of the time” respectively. Sample items include “I feel lonely”, “I feel like crying”, and “I have lots of energy”. The scale

has been adapted for Bosnian adolescent refugees (Layne et al., 2001), Iranian adolescents (Taghavi, 2006), and Somali adolescent refugees (Ellis et al., 2006) and has shown good reliability indices.

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## Section 4. Assessment

Most screeners are designed to over-identify children who are potentially experiencing difficulties. Thus, personnel involved in screening should use any data with extreme caution and not make assumptions about whether children who “screen in” require mental health services. A thorough assessment is required to definitively establish a diagnosis or recommend that a child receive specialized services.

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While the need for parental consent may be ambiguous when universal informal screening is involved, formal assessment typically requires active or “opt-in” parental consent. The one exception may occur when high school age youth are themselves seeking treatment from clinical staff. Many states permit adolescents to seek mental health advice without requiring parental consent. Mental health programs and school staff need to be knowledgeable about their state laws and school policies (see, for example, information provided by the National Center for Youth Law <http://www.youthlaw.org/>)

The kinds of assessments conducted after an initial screening vary. Most clinical personnel conduct extensive assessments as part of their intake process -- documenting history, diagnosis, family, and psychosocial issues. The questions are open-ended and the assessment may involve home visits or multiple sessions.

Kinzie and colleagues (2006) have suggested that it is not appropriate to use standardized measures in assessment with refugees. They argue that only an extensive open-ended assessment process can appropriately establish a diagnosis. Such an assessment must address the needs of the client, the family, the effects of various stressors, and the cultural expectations and norms of the client.

Ehnholt & Yule (2006) have used semi-structured clinical interviewing as the main technique in the assessment process. This approach helps gather information, establish rapport, and engage the refugee child and/or family. However, the

authors also suggest that structured clinical interviews may be needed to determine whether a child meets diagnostic criteria for a specific disorder. Structured clinical interviews are particularly recommended when completing medical-legal reports.

### Standardized assessment tools

Some standardized assessment instruments, including some screening measures, may be used to supplement the assessment process. For example, clinicians may administer self-rating scales to clients that assess symptoms of depression, anxiety and PTSD. Not only can such scales provide additional information, they can also be used as a feedback mechanism to determine if therapy is effective. During treatment, they may serve as a tool to discuss the therapeutic process and progress with the client.

**The Child and Adolescent Functional Assessment Scale (CAFAS)** is one such standardized measure. It relies on a clinician’s report and is used to rate a child’s functioning over the past three months across eight life domains, including school, home life, community living, behavior toward others, behavior toward self, mood, substance abuse, and thinking (Hodges & Wong, 1996). Clinicians can also rate the child’s strengths, as well as the caregiver’s strengths and problems. In this way the measure provides a balanced perspective on a child’s overall functioning, as a child may exhibit problems in some, and strengths in other areas. Since some studies have suggested that functioning of immigrant children is different across life domains (Aronowitz, 1984), such a differentiated approach is particularly appropriate for these populations. Subscale scores are summed to create a total score reflecting overall level of dysfunction, with higher scores (range 0-240) reflecting greater impairment. Both a school-age and a pre-school version are available.

Because the CAFAS utilizes clinician report, it can be used without translation into immigrant and refugee languages. In order to use the CAFAS, clinicians must complete a standardized training protocol to ensure inter-rater reliability. To assure consistency across raters, the measure provides specific behavioral examples of functioning at different levels of impairment. The measure is normed on U.S. born children and youth and there may be instances where the rating system is inaccurate for immigrant and refugee children. For example, whereas for a U.S.-born child not completing homework may be a sign of disorganization or problems in school, a newly arrived immigrant child may not be able to complete home-

work because of poor English language capacity. At the same time, the measure allows clinicians to track progress during treatment regardless of the reasons for difficulties in school or across other areas of functioning. The CAFAS has been used in one study of a community-based mental health program for multicultural refugee youth (Birman et al., in press), and shown good internal consistency.

**The Child & Adolescent Needs and Strengths (CANS-MH)**, like the CAFAS, is an inventory to assess the needs and strengths of the child and his/her family (Lyons, Griffin, Fazio & Lyons, 1999). It is based on the authors' previous research with children with severe psychiatric illnesses. The questionnaire is administered by a clinician as an interview and it is particularly helpful with treatment planning. There are six dimensions including problem presentation, risk behaviors, functioning, care intensity and organization, family/caregiver needs and strengths, and children's strengths. In terms of its psychometric characteristics, CANS-MH is correlated with CAFAS (Rautkis & Hdalio, 2001). However, the reliability of the scale has not been studied extensively (Anderson et al., 2003), and unlike the CAFAS, there is no procedure to train clinicians to achieve reliability. Like the CAFAS, the advantages of CAN-MH are its strength-based items and that it is useful for service planning (Winters et al., 2006). Researchers however should be careful when using CANS-MH with immigrants and refugees because most of the research on CANS-MH focuses on adolescents in the juvenile system (Lyons et al., 2003). Thus, the scale may not be as relevant to a general population of immigrant and refugee youth, and there are no reports of its use with immigrant or refugee children in the literature.

## Other Guidance

The literature also suggests that understanding and intervening with children experiencing mental disorders is more effective when adults from multiple life spheres can come together in the assessment process. A more comprehensive process is then possible, making it easier to potentially identify the child's strengths. For example, Conjoint Behavioral Consultation (Sheridan, Kratochwill, & Bergan, 1996) is one approach where the assessment process involves bringing together the parents and teacher(s) in order to better understand the problems faced by the child, and designing home-school partnerships to support interventions in both venues. The assessment process may include interviews or rating scales completed by parents and/or teacher(s); classroom observation of student; and discussion to understand different perspectives on the child from varied sources. Intervention

can also involve a team approach. For example, consistent communication between teachers and parents can be set up as part of the treatment process to keep the parents informed about the child's behavior in school, and provide opportunities for the parents to reinforce the child for appropriate behavior or academic successes.

Use of the team approach may need to be adapted when working with immigrant and refugee children. Immigrant parents may not understand what's expected of them in the teacher meeting and may assume that they are being called in because the child has done something wrong. They may expect to punish the child rather than assess the situation and develop a joint approach. Adaptations of the joint consultation approach may be necessary. For example, it may be more appropriate for the clinician to meet with the parents first to orient them to structure of the school and the intervention model; then parents meet with the teacher separately to help explain the circumstances of the child and his or her cultural background. Only after those preliminaries are complete, is the whole team brought together.

## Conclusions

While a number of screening instruments have been identified for use in schools (Levitt et al., 2007), few have been used extensively with refugee and immigrant populations. In fact, the majority of these measures have not been developed specifically for immigrants and refugees. Instead, measures developed for U.S.-born children and youth have been translated and adapted for use with diverse populations. As was discussed at the beginning of this paper, measures developed for use in one culture may not be valid in another (Knight et al., 1994).

At the same time, those working with refugees and immigrants have few options, and existing measures can be useful when used appropriately. Professionals using such screeners or standardized assessment tools can follow the following guidelines when selecting and adapting screening and assessment measures for use with particular immigrant and refugee populations.

- As a first step, and throughout the process, it is critical to involve consultants from the local immigrant/refugee community to help design the screening process and identify possible measures to use. Such consultants may be parents from the community, professionals or paraprofessionals who themselves have immigrated from the same country, as well as professionals knowledgeable about this community. Importantly, a team approach that includes a range of expertise is likely to provide the most information and result in the most culturally sensitive process.
- If translation is required, it is important to use the “decentering” procedure described earlier in the paper (Brislin, 1986). It is imperative that the resulting translations are discussed by a team including translators, members of the local ethnic community, and mental health professionals. Translators and consultants from the local community can help ensure that the translated measures are meaningful, appropriate, and acceptable to the target community. However translators who have also been trained in mental health are rarely available. Therefore involvement of mental health professionals on the team is essential to help assure that the translated and adapted measure continues to be valid, and capture the construct of interest.

It is of utmost importance that clinicians and other profes-

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It is of utmost importance that clinicians and other professionals using adapted instruments exercise extreme caution when examining the results, and remembering that screeners cannot be used to obtain definitive findings, and must be followed up with an extensive clinical assessment.

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sionals using adapted instruments exercise extreme caution when examining the results, and remembering that screeners cannot be used to obtain definitive findings, and must be followed up with an extensive clinical assessment. Only a thorough understanding of the child and family’s situation and cultural background can serve as the basis for a definitive diagnosis of a mental disorder, and an appropriate treatment plan.

## FOOTNOTES

<sup>1</sup> Validity refers to the degree to which a screening instrument accurately reflects or assesses the specific construct it's attempting to measure. Reliability is the extent to which a screening procedure is accurate and yields the same result on repeated trials. Types of reliability include inter-rater reliability (the same results are obtained regardless of who responds to the screener), and internal consistency (different questions on a measure reflect the same construct).

<sup>2</sup> The literature review was conducted using PsycInfo. For the initial search, we entered terms such as “immigrant and refugee youth”, “immigrant and refugee children”, “mental health assessment/screening”, and “school-based mental health”. After we had collected several articles that examined mental health of immigrant and refugee children, we collected screening and assessment tools by identifying the original publications of the scales or contacting the scale’s developers. To investigate the utility and reliability of these scales for various immigrant and refugee groups, we conducted an individual search for each scale. We also included the scale developer’s websites when available. These websites provide in-depth information about the measures including reliability studies, translated materials, and rating forms.

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