

WELCOME

You are attending the webinar on

Tools and Strategies for Refugee Mental Health Screening: Introducing the RHS-15

presentation will begin shortly

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Webinar Overview

- Presentation by Dr. Michael Hollifield (50 minutes)
- Q&A via Chat Window (20 minutes)
- Slides, webinar recording, Q&A, and additional resources will be posted to <http://refugeehealthta.org>
- Email refugeehealthta@jsi.com if you have any questions after the webinar
- Webinar survey will appear immediately after
- Continue the conversation at **Community Dialogue:** <http://www.refugeehealthta.org/community-dialogue/>



Continuing Education Credits

- Registration is now closed.
- For those registered for CECs with Baystate Continuing Education, expect another Evaluation form via email on 1/26.




Objectives

- Describe the tools available for screening and assessing mental health in refugees.
- Explain how to use the Refugee Health Screener-15 in the care of my patients.
- Identify the primary and secondary obstacles to screening for mental health in refugees.
- Describe strategies to overcome obstacles to the provision of optimal care for these patients.



Who is here today?

- 
- Health/mental health care providers
 - Refugee health coordinators
 - Refugee resettlement coordinators
 - From dozens of organizations in Canada, Switzerland, Thailand, and 40 U.S. states

Screening for Emotional Distress in Refugees: Introducing the Refugee Health Screener-15 (RHS-15)

An RHTAC Webinar
January 25, 2012

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Scientist, PIRE
Director, *Program for Traumatic Stress*, LBVA



REFUGEEHEALTH TECHNICAL ASSISTANCE CENTER

Screening for Emotional Distress in Refugees

Goals:

- Identify the need for screening
- Describe the development of the Refugee Health Screener-15 (RHS-15)
- Communicate the importance of process during screening, referral, and treatment

Screening for Emotional Distress in Refugees: Early Work

- ▣ The New Mexico Refugee Project, 1998-2002
 - Improving the assessment of trauma and health
 - Developed instruments
 - ▣ The Comprehensive Trauma Inventory-104
 - ▣ The New Mexico Refugee Symptom Checklist-121
- ▣ Beginning a screener for use in Public Health

The Pathways to Wellness Project

PROJECT PARTNERS:

- Lutheran Community Services Northwest
- Asian Counseling and Referral Services
- Public Health Seattle & King County
- Michael Hollifield, M.D.

PROJECT DIRECTOR

- Beth Farmer, MSW



Generously funded by The Robert Wood Johnson Foundation, The Bill and Melinda Gates Foundation, United Way King County, The Medina Foundation, and the Boeing Employees Community Fund, and the Office of Minority Health

Khem



- Khem, an 18 year old Nepali Bhutanese comes to **King County Public Health** with his family for health screening.
- He seems nervous, but glad to be in the US.
 - Some intermittent neck and chest pain. Assessed in the refugee camp and not thought to be a problem.
- His **mother** has no record of illness.
 - Some nausea and mild intermittent pain in her left chest, but denies pain with activity or other gastrointestinal complaints.
- His **father** is quiet, and had cholera a long time ago.
- His 9 year old **sister** is quiet and without complaints.

Khem



- The **family** undergoes health screening, initial immunizations, and initial labs.
- The family is **provided a list of medical clinics** in South King County and encouraged to establish care and follow-up on rest of immunizations and labs as soon as possible at a primary care clinic near their home.



Resettlement Agency

- Cultural orientation
- Basic services
- Self sufficiency support



Public Health
Refugee
Screening Clinic



Primary
Care Clinic





Khem Establishes Primary Care

Four months later Khem and his mother go to the primary care clinic that was identified to them to establish care.

Goals for the First Clinic Visit



Build rapport

Address current concerns of patient

Orientation

- Clinic services, concept of well child exams
- Discuss initial 2-3 visits



Evaluation and Diagnostic services

- Medical history / Family history (brief)
- Travel history
- Physical exam
- Medical screening (labs, Quant/PPD)



Services

- Treat any acute needs, empiric treatment
- Catch-up immunizations
- Social work referral (housing, insurance)

Khem's Acute Visit



- ▣ Five months later Khem and his mom come to the clinic for an **acute care visit**. *(This is 9 or 10 months into resettlement, after some services for new refugees have expired)*
- ▣ Through an interpreter, Khem reports he has been sick and has not able to attend school for weeks:
 - Has **chest and neck pain**, and **problems with digestion**.
- ▣ His **mother is also having problems** with back pain, abdominal discomfort, and fatigue.

Khem's Acute Visit



Only after a long dialogue, using the community interpreter, does it become clear that:

- His **mother had witnessed the killing of her father** before coming to the refugee camp and she is exhibiting symptoms of PTSD
- **Khem had symptoms of depression in the camp** and is now having **problems adjusting** to his new school and home.

Could Khem's and his mother's risk for mental health problems have been identified and managed earlier?

What are the benefits and obstacles to integrating mental health assessment into refugee screening at resettlement?

Pathways to Wellness - The Vision -

Early mental health screening

(while refugees still have resources)

- * Prevent refugees in crisis
- * Lower emotional distress
- * Improve adjustment

Build capacity for refugee mental health

(mental health agencies & refugee communities)

- * Increase access
- * Decrease stigma

Design of evidence-based, validated tools

- * Provide effective approach to reduce burden of mental illness
- * Offer tools to other resettlement areas for replication

Challenges to Early Screening and Intervention

- ▣ Cultural, logistic, and effectiveness issues about screening
 - Western constructs of mind body separation
 - Cost, time, follow up
 - Interpreter availability, abilities
 - Perceived/vs actual potential burden
- ▣ Community mental health capacity
- ▣ Individual and community stigma
- ▣ Refugee health/help seeking behaviors
- ▣ Appropriate and efficient instruments

Instrument Construction: The RHS-15

- ▣ Purpose

 - Why do you want or need an assessment?

- ▣ Construct definition

 - Define as exactly as possible what you want to assess.

- ▣ Instrument design

 - Describe what it will look like and for what purpose.

- ▣ Development described

 - Describe how it was developed.

- ▣ Metric testing

 - Evaluate its validity and reliability.

Purpose for a Screening Instrument During Early Resettlement

- Emotional distress in refugees is highly prevalent
- Integrating mental health into public health and primary care is important since initial visits for refugees are in these settings
- It would alter the current process and enhance
 - Secondary (and in some cases primary) prevention
 - Earlier tertiary care

Purpose for Screening: Psychiatric Disorders

In Clinical Samples

- ▣ PTSD and Depression 50 - 90% (Vietnamese with 11% PTSD).¹

In Non-representative Community Samples

- ▣ PTSD: 4 - 60%; Major Depression: 5 - 31%.²

In Representative Community Samples

- ▣ PTSD 9 - 86% using self-rated scales.³
- ▣ PTSD 12% in Cambodians using a structured interview.⁴

Meta-Analysis⁵

- ▣ PTSD 10% and Depression 5 to 7% in community samples.
- ▣ Rates affected by methodology: higher if non-random sample, assessment done through interpreter, small sample size, and clinical assessment (vs. structured interview)

1. Mollica, 1987; Thompson, 1995; Mollica, 1990; Van Velsen, 1996; Weine, 1995
2. Allden, 1996; Silove, 1997; Thompson, 1995; Cervantes, 1989; Basoglu, 1994a and 1994b
3. Carlson, 1994; Hauff, 1993; Mollica, 1993).
4. Cheung 1994
5. Fazel et al., Lancet, 2005

Purpose for Screening: Current Options

- ▣ Vietnamese Depression Scale (Kinzie et al., 1982, 1987)
- ▣ Harvard Trauma Questionnaire (Mollica et al., 1992)
- ▣ Hopkins Symptom Checklist – 25 (Derogatis et al., 1974)
- ▣ Post-traumatic Symptom Scale – Self Report (Foa et al., 1993)
- ▣ New Mexico Refugee Symptom Checklist -121 (Hollifield et al., 2009)

- ▣ These options are either too long, too specific, or not tested across ethnic populations.
- ▣ Others, such as the PHQ-9, have not been developed or tested in refugees.

Instrument Construction

- ▣ Purpose
 - Why do you want or need an assessment?
- ▣ **Construct definition**
 - Define as exactly as possible what you want to assess.
- ▣ Instrument design
 - Describe what it will look like and for what purpose.
- ▣ Development described
 - Describe how it was developed.
- ▣ Metric testing
 - Evaluate its validity and reliability.

The RHS-15

What is it?

- ▣ The RHS-15 is a screener for distressing symptoms of **anxiety** and **depression**, including **PTSD** in refugees. It is predictive of these disorders.
- ▣ It is not a diagnostic evaluation, but it is highly sensitive and specific for anxiety, depression, and PTSD.
- ▣ It is a mechanism to route people who need care into treatment.
- ▣ It is now integrated into standard refugee health screening at PH Seattle and King County, and is becoming integrated in at least 3 other venues.

Instrument Construction

- ▣ Purpose
 - Why do you want or need an assessment?
- ▣ Construct definition
 - Define as exactly as possible what you want to assess.
- ▣ **Instrument design (to be shown later)**
 - Describe what it will look like and for what purpose.
- ▣ Development described
 - Describe how it was developed.
- ▣ Metric testing
 - Evaluate its validity and reliability.

Instrument Construction

- ▣ Purpose
 - Why do you want or need an assessment?
- ▣ Construct definition
 - Define as exactly as possible what you want to assess.
- ▣ Instrument design
 - Describe what it will look like and for what purpose.
- ▣ **Development described**
 - Describe how it was developed.
- ▣ Metric testing
 - Evaluate its validity and reliability.

Developing the RHS-15

- ▣ Previous efforts
 - Ovitt et al., Bosnian refugees¹
 - Savin et al., Colorado²
- ▣ Our previous work in New Mexico and Kentucky with public health and a resettlement agency
- ▣ Development of the NMRSCCL-121.
- ▣ The need for a brief and effective screen

1. Ovitt et al., 2003

2. Savin et al., 2005

Developing the RHS-15

- ▣ Initial screening programs in NM and KY utilized instruments that have the best empirical support for assessing relevant symptoms:
 - The NMRSCCL-121
 - The HSCL-25
 - The PSS-SR
- ▣ For development of the RHS-15, we utilized:
 - 27 NMRSCCL-121 items as the initial screening instrument
 - As diagnostic proxies:
 - ▣ The HSCL-25
 - ▣ The PSS-SR

TOTAL NUMBER OF SYMPTOMS N = 66

Sx Category	IDI		SCL	
	N=30		N=26	
Constitutional	17			
General	26	8%	20	15%
Skin	14	4%	7	5%
Senses	29	8%	11	8%
Cardiovascular	23	7%	9	7%
Respiratory	19	6%	7	5%
Gastrointestinal	25	7%	8	6%
Genitourinary	5	1%	5	4%
Gynecologic	3	1%	1	1%
Sexual	4	1%	1	1%
Musculoskeletal	32	9%	9	7%
Neurological	23	7%	12	9%
Anxiety	56	16%	14	10%
Depression	51	15%	15	11%
Thinking	26	8%	13	10%
Body Changes	4	1%	2	1%
Other	5	1%	0	0%
Emotions	221			
Cognition	34			
Nphy	4			
Npsy	20			
PTSD	281			
Total # of Symptoms	922	100%	134	100%
Symptoms per Person	30.73		5.15	

Developing the RHS-15

- ▣ Instruments were translated into 4 languages
- ▣ Key components to cultural responsiveness
 - Language specific- semantics yielding accuracy and clarity of meaning
 - This phase of development is critical to obtain culturally responsive items in each language group.
- ▣ New language groups will include Russian and Somali

Developing the RHS-15

- ▣ 251 refugees 14 years or older in four groups screened
 - 93 Iraqi
 - 75 Nepali Bhutanese
 - 36 Karen
 - 45 Burmese Speaking (Karenni and Chin ethnic groups)
- ▣ 190 of those screened were administered the diagnostic proxies within 2 weeks of screening
- ▣ Those missed were due to shortage in available interpreters, out-migration, and other reasons

Developing the RHS-15

- ▣ Three methods were used and compared to establish the set of items to best classify persons as most likely to have diagnostic proxy level **anxiety, depression, or PTSD**:
 - discriminant analysis (DA)
 - naïve Bayesian classification (BAY)
 - chi-square (CHI) for each item by diagnostic proxy
- ▣ Items that were high for classifying persons by at least 2 of the 3 methods were then subjected to BAY to maximize for classification sensitivity.

Developing the RHS-15: Analyses

Items selected by BAY	PSS-SR ≥ 16	PTSD diagnosis	HSCL-25 Anxiety	HSCL-25 Depression	Any Proxy
NM 5_1	X		X	X	
NM 5_12				X	
NM 5_19				X	
NM 5_22					X
“Coping”			X		
PSS 3	X				
PSS 5				X	
PSS 11	X	X	X		X
PSS 17				X	
HSCL 1		X	X	X	X
HSCL 3			X		
HSCL 9	X				
HSCL 10	X				
HSCL 11				X	
Sensitivity	1.00	0.89	1.00	1.00	0.96
Specificity	0.94	0.83	0.91	0.93	0.86

Instrument Construction

- ▣ Purpose
 - Why do you want or need an assessment?
- ▣ Construct definition
 - Define as exactly as possible what you want to assess.
- ▣ Instrument design
 - Describe what it will look like and for what purpose.
- ▣ Development described
 - Describe how it was developed.
- ▣ **Metric testing**
 - Evaluate its validity and reliability.

Metrics of the RHS-15

Sensitivity and Specificity to Diagnostic Proxies at Various Cut Scores,
N = 190

Proxy Diagnosis		RHS-15 Cut Score						
		9	10	11	12	13	14	15
PTSD	Sensitivity	0.91	0.86	0.86	0.83	0.81	0.80	0.77
	Specificity	0.79	0.84	0.87	0.90	0.91	0.92	0.94
DEP	Sensitivity	0.97	0.93	0.93	0.91	0.91	0.88	0.88
	Specificity	0.78	0.84	0.87	0.90	0.92	0.92	0.96
ANX	Sensitivity	0.98	0.94	0.93	0.91	0.89	0.85	0.83
	Specificity	0.76	0.82	0.84	0.87	0.88	0.88	0.91
Any	Sensitivity	0.90	0.85	0.84	0.80	0.79	0.75	0.72
	Specificity	0.87	0.93	0.96	0.97	0.98	0.98	1.00
All	Sensitivity	1.00	0.97	0.97	0.97	0.97	0.97	0.97
	Specificity	0.69	0.75	0.78	0.81	0.82	0.84	0.87

REFUGEE HEALTH SCREENER-15 (RHS-15)

Pathways to Wellness

Integrating Refugee Health and Well-being

Creating pathways for refugee survivors to heal



ENGLISH VERSION

DEMOGRAPHIC INFORMATION

NAME: _____ DATE OF BIRTH: _____
ADMINSTERED BY: _____ DATE OF SCREEN: _____
DATE OF ARRIVAL: _____ GENDER: _____ HEALTH ID #: _____

Developed by the *Pathways to Wellness* project and generously supported by the Robert Wood Johnson Foundation, The Bill and Melinda Gates Foundation, United Way of King County, The Medina Foundation, Seattle Foundation, and the Boeing Employees Community Fund.

Pathways to Wellness: Integrating Community Health and Well-being is a project of Lutheran Community Services Northwest, Asian Counseling and Referral Services, Public Health Seattle & King County, and Dr. Michael Hollifield. For more information, please contact Beth Farmer at 206-816-3252 or bfarmer@lcsnw.org.

Instructions: Using the scale beside each symptom, please indicate the degree to which the symptom has been bothersome to you over the past month. Place a mark in the appropriate column. If the symptom has not been bothersome to you during the past month, circle "NOT AT ALL."



SYMPTOMS	NOT AT ALL	A LITTLE BIT	MODERATELY	QUITE A BIT	EXTREMELY
1. Muscle, bone, joint pains	0	1	2	3	4
2. Feeling down, sad, or blue most of the time	0	1	2	3	4
3. Too much thinking or too many thoughts	0	1	2	3	4
4. Feeling helpless	0	1	2	3	4
5. Suddenly scared for no reason	0	1	2	3	4
6. Faintness, dizziness, or weakness	0	1	2	3	4
7. Nervousness or shakiness inside	0	1	2	3	4
8. Feeling restless, can't sit still	0	1	2	3	4
9. Crying easily	0	1	2	3	4

The following symptoms may be related to traumatic experiences during war and migration. How much in the past month have you:

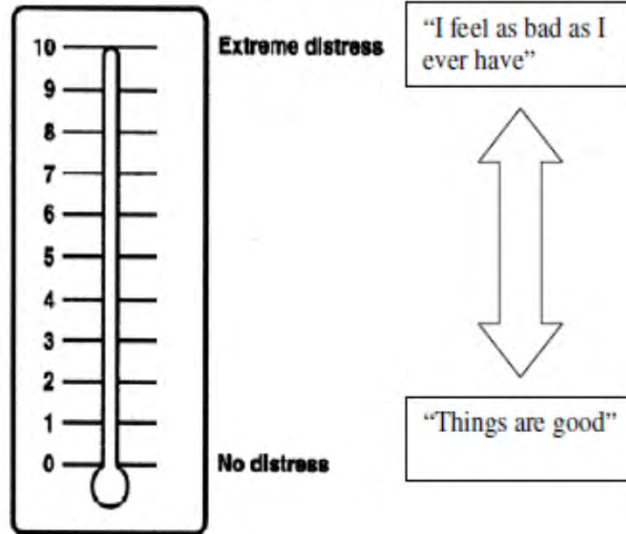
10. Had the experience of reliving the trauma; acting or feeling as if it were happening again?	0	1	2	3	4
11. Been having PHYSICAL reactions (for example, break out in a sweat, heart beats fast) when reminded of the trauma?	0	1	2	3	4
12. Felt emotionally numb (for example, feel sad but can't cry, unable to have loving feelings)?	0	1	2	3	4
13. Been jumpier, more easily startled (for example, when someone walks up behind you)?	0	1	2	3	4

14. Generally over your life, do you feel that you are:
- Able to handle (cope with) anything that comes your way0
 - Able to handle (cope with) most things that come your way1
 - Able to handle (cope with) some things, but not able to cope with other things.....2
 - Unable to cope with most things.....3
 - Unable to cope with anything4

15.

Distress Thermometer

FIRST: Please circle the number (0-10) that best describes how much distress you have been experiencing in the past week including today.



ADD TOTAL SCORE OF ITEMS 1-14: ____

SCORING		
Screening is POSITIVE		
1. If Items 1-14 is ≥ 12 OR	Self administered: ____	
2. Distress Thermometer is ≥ 5	Not self administered: ____	
CIRCLE ONE:	SCREEN NEGATIVE	SCREEN POSITIVE
		REFER FOR SERVICES



Another scenario for Khem ...

- ▣ A public health nurse screens three of the family members using the **RHS-15** (older than 14 yo) and finds **Khem to score high**. The nurse offers a referral,
 - Khem asks “How did you know I was having tense muscles and headaches? All of these questions are exactly how I am feeling.”
- ▣ The **mother also has a significant score and offered a referral**

“It appears you have some problems with crying a lot and stress or too much thinking. Many refugees experience these symptoms. I will refer you to someone who would be able to help you more.”



Another scenario for Khem ...

- ▣ **The family accepts services.** The nurses provides copies of overseas medical report, screening forms, provider notes, language ID cards, and a Toolkit folder for the family to bring to their PCP.
- ▣ Khem and his mother eventually are **seen by a clinician** who is part of a outreach referral system for refugees. The clinician provides further diagnosis, treatment, and resource support for the family to cope with their new environment.

Effective Use of the RHS-15

- ▣ Use in public health, primary care, or other health screening sites
- ▣ Use where there are mental health services available to refugees, or as a way to help develop them
- ▣ Incorporate the RHS-15 into other health screenings, and no need to identify it as separate from “health screening.”
- ▣ Not Appropriate: where there are no resources to support treatment of refugees identified

Future Directions

- ▣ Further validation
- ▣ Dissemination
- ▣ Policy
- ▣ Funding



Thank you!

Comments Appreciated
Collaborations Encouraged



Continue the Conversation!

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REFUGEE HEALTH TECHNICAL ASSISTANCE

Refugee Basics | Access to Care | Physical and Mental Health | **Community Dialogue** | [webinars](#)

Community Dialogue

RHTAC Updates

New RHTAC Community Dialogue Forum
Share resources, ideas, experiences and promising approaches with other refugee health providers.
January Dialogue: Domestic Health Orientation

Register Now for Our January Webinar
Refugee Mental Health Screening
January 25, 2012 | 1:00-2:30 PM EST
[Details and Registration](#)

Providing Technical Assistance and Support on Refugee Health and Mental Health for Providers in the U.S.

www.refugeehealthta.org

Your Space to Discuss and Share!

The screenshot shows the website for the Refugee Health Technical Assistance Center (RHTAC). The header includes the organization's name and navigation links for Home, About, and Contact. A search bar is also present. The main navigation menu includes categories like Refugee Basics, Access to Care, Physical and Mental Health, and Community Dialogue. The current page is titled 'Community Dialogue' and features a welcome message, a 'Resources' section with a webinar listing, and a 'Contribute' section for submitting questions or topics. A specific announcement for a January 2012 dialogue is highlighted in a box.

Home | About | Contact |

REFUGEEHEALTH TECHNICAL ASSISTANCE CENTER

« » webinars

Refugee Basics Access to Care Physical and Mental Health **Community Dialogue**

Home > Community Dialogue

Community Dialogue

Welcome to RHTAC Community Dialogue, a forum for refugee providers to share resources and learn from each other's experiences. Join the dialogue by posting a new comment or replying to an existing comment.

January 2012 Dialogue: Domestic Health Orientation

Continue the dialogue from the CAL and RHTAC December 5, 2011 webinar *Refugee Health Orientation Continuum: Overseas and Domestic Perspectives*. Webinar participants' comments relate to these main themes:

- [Resources and Tools](#)
- [Strategies and Techniques](#)
- [Evaluation and Research](#)

Comments will be closed on January 31, 2012

Resources

Refugee Health Orientation Continuum Webinar
December 5, 2011
Slides – PDF [1,090 KB]

Full webinar slides and recording coming soon! Check back for a summary document of the Domestic Health Orientation Community Dialogue.

Contribute

Submit a question or suggest a topic for a future dialogue.

Question/Topic:

www.refugeehealthta.org/community-dialogue/



Questions and Answers



Participatory Translation Process

Community Orientation



Translation
company



Back Translation 1



Community
members *reconcile*
both products



Company provides
clean and track
changes version,
Review by 1
community
member



Translation
company finalizes
product

Some examples from the communities....

- “Emotional” versus “Health”
- “Emotionally Numb”
- “Distress” versus “Stress”
- Questions from the focus group.
- Translation conducted in Arabic, Nepali, Karen, Burmese, Russian.
- New languages to include- Tigrinya, Farsi, and Somali.

Screening & Referral

Community
Outreach


Provider
Outreach

Treatment
& support

Screening & Referral

- ▣ Pathways created a robust referral system with partner community-based groups
 - Centralized tracking
 - Linked referrals to providers in the community
- ▣ Key components:
 - Follow-up by bicultural workers
 - De-stigmatized referral offered at time of refugee health screening visit

Community Outreach

- Educate refugees about U.S. perspectives on mental health to reduce stigma and shame
 - Build bridge of understanding between how U.S. talks about mental health and refugee cultural perspectives
 - Improve refugees' knowledge and ability to talk about emotional distress
- Identify and link cases to extra support
- Orient refugees on what to expect when receiving culturally appropriate mental health services
- The result  communities are empowered to advocate for themselves and support their wellness.

Providers Outreach

Goal: increase providers capacity and awareness to address refugee mental health needs by:

- Improving knowledge of the refugee experience
- Incorporating culture into assessment, diagnosis and treatment planning
- Offering resources on interventions specific to refugee populations
- Linking providers to supportive resources
- Addressing special considerations for intergenerational treatment

Twelve Instruments Developed in Refugee Populations

From Hollifield et al, JAMA, 2002

Author, year	Instrument	Trauma	Health Status	Method	Validity testing	Reliability testing
Developed and described instruments - published, accessible and useable						
Kinzie, 1982, 1987	Vietnamese Depression Scale, Published	No	Culturally Valid Depression Scale	Qualitative + Quantitative, Rational + consensus	Yes	No
Mollica, 1992	Harvard Trauma Questionnaire, Published	17 Trauma Items, one is Torture	30 symptoms: PTSD and Depression	Quantitative, Rational + Consensus	Yes	Yes
Developed and described instruments - not published or easily useable						
Clarke, Sack, 1993	Resettlement Stressor Scale, Unpublished	Yes	No	Quantitative, Rational + Consensus	Yes	No
Clarke, Sack, 1993	War Trauma Scale, Unpublished	Yes	No	Quantitative, Rational + Consensus	Yes	Yes
Silove, 1998	Post-Migration Living Difficulties, Unpublished	Difficult Life Events in Resettlement	No	Quantitative, Rational + Consensus	Yes	No

Twelve Instruments Developed in Refugee Populations (con't)

From Hollifield et al, JAMA, 2002

Author, year	Instrument	Trauma	Health Status	Method	Validity testing	Reliability testing
Potentially useful instruments (either in development, not described well, or not tested well)						
Beiser, 1986	Unnamed, Unpublished	No	4 Mental Health Factors	Quantitative and rational, from existing scale items	Yes	No
McCloskey, 1995	Unnamed, Unpublished	Yes	PTSD Inventory	Combined Qualitative/ Quantitative	No	No
Van Velsen, 1996	Survivor of Torture Assessment Record, Unpublished	7 Trauma Events	9 Health Symptoms / Losses	Combined Qualitative/ Quantitative	Yes	No
Cunningham, 1997	Unnamed, Unpublished	Trauma Types by PCA	Symptom Types by PCA	Quantitative and Statistical	No	No
Ekblad, 1999	Unnamed, Unpublished	No	Quality of Life	Qualitative	Yes	No
Bolton, 2001	Unnamed, Published	No	2 Mental Health Factors	Qualitative, Empirical	Yes	Yes
Weine, 2001	Unnamed, Unpublished	No	Quality of Care:	Rational + Qualitative	Yes	No

Eight Instruments Tested or Adapted for Use in Refugee Populations

From Hollifield et al, JAMA, 2002

Author, year of evaluation	Instrument and Author	Trauma	Health Status	Validity testing	Reliability testing
Lin et al., 1979	Cornell Medical Index; Brodman, 1956	No	Symptoms List	No	No
Chung et al., 1995	Health Opinion Survey; Leighton, 1963	No	Anxiety and Depression Scales	No	No
Mollica et al., 1987	Hopkins Symptom Checklist - 25; Derogatis, 1974	No	Anxiety, Depression	Yes	Yes
Westermeyer et al, 1983; 1986; 1989	Symptom Checklist - 90; Derogatis, 1977	No	10 Symptom Scales	Yes	No
Dyregov et al, 1996; Schwartzwald et al., 1987	Impact of Events Scale; Horowitz, 1979	No	Intrusion, Avoidance, Total score	Yes	No
Westermeyer et al, ?	Beck Depression Scale; Beck ?	No	Depression	Yes	Yes
Shishana et al, 1987	Norbeck Social Support Questionnaire; Norbeck, 1981	No	Support as a moderator to health status	Yes	No
Thelusius, et al., 1999	Posttraumatic Symptom Scale - 10; ?	No	Posttraumatic Stress Symptoms	No	Yes

Goodness of Instrument Construction and Access

From Hollifield et al, JAMA, 2002

	Purpose	Construct Definition	Design	Development	Validity/Reliability	Published in useable form
Twelve instruments developed in refugee research						
HTQ sections 1 & 3	Yes	Yes	Yes	Part	Yes/Yes	Yes
PMLD	Yes	Yes	Part	Part	Yes/No	No
RSS	Yes	Yes	Part	Part	Yes/No	No
WTS	Yes	Yes	Part	Part	Yes/Yes	No
VDS	Yes	Yes	Yes	Yes	Yes/No	Yes
Unnamed (Beiser)	Yes	Yes	Part	Part	Yes/No	No
Unnamed (Bolton)	Yes	Yes	Part	Yes	Yes/Yes	No
Unnamed (Ekblad)	Yes	Part	Part	Part	Yes/No	No
Unnamed (Weine)	Yes	Yes	Part	No	Yes/No	No
Unnamed (Cunningham)	Yes	Part	Part	Part	No/No	No
STAR	Yes	Part	Part	Part	Yes/No	No
Unnamed (McCloskey)	Yes	Part	Part	Part	No/No	No
Eight instruments adapted/tested in refugee research*						
HSCL-25	Yes	Yes	Yes	Yes	Yes/Yes	Yes
IES	Yes	Yes	Yes	Yes	Yes/No	Yes
SCL-90	Yes	Yes	Yes	Yes	Yes/No	Yes
HOS ¹	Yes	Yes	Yes	Yes	No/No	Yes
CMI ²	Yes	Yes	Yes	Yes	No/No	Yes
PSS-10	Yes	Yes	Yes	Yes	No/Yes	Yes
BDI	Yes	Yes	Yes	Yes	Yes/Yes	Yes
NSSQ	Yes	Yes	Yes	Yes	Yes/No	Yes