

This work is licensed under a [Creative Commons Attribution-NonCommercial-ShareAlike License](https://creativecommons.org/licenses/by-nc-sa/4.0/). Your use of this material constitutes acceptance of that license and the conditions of use of materials on this site.



Copyright 2011, The Johns Hopkins University and Judith Bass. All rights reserved. Use of these materials permitted only in accordance with license rights granted. Materials provided "AS IS"; no representations or warranties provided. User assumes all responsibility for use, and all liability related thereto, and must independently review all materials for accuracy and efficacy. May contain materials owned by others. User is responsible for obtaining permissions for use from third parties as needed.



JOHNS HOPKINS
BLOOMBERG
SCHOOL *of* PUBLIC HEALTH

Instrument Development: Adaption and Validation

Judy Bass, MPH, PhD
Johns Hopkins University

Class Objectives

- Be able to ...
 - Identify when measures need to be adapted and investigate appropriate methods
 - Discuss different types of validity and their relation to cross-cultural research
 - Consider different methods to test for instrument validity



JOHNS HOPKINS
BLOOMBERG
SCHOOL *of* PUBLIC HEALTH

Section A

Instrument Adaptation

Instrument Adaptation

- Selection of appropriate instrument(s)
- Translation
- Addition/removal of questions
- Piloting
- Revision

DR Congo: Maladi ya Souci

- Worries too much
- Angry
- Sad
- Loss of weight
- Disputes for no reason
- Stomach pain
- Self-pity
- Fatigue
- Thought of killing self
- Crying easily
- Thinks too much/heart full of thoughts
- Lack of peace
- Neglects self
- Lacks happiness
- Fears others
- Insults other
- Trouble sleeping
- Feeling tormented
- Heart is restless
- Feel weak/tired
- Need to be alive is gone
- Forgets

Instrument Selection

■ HSCL-D*

- Standard depression screener
- Short (15 items)
- Used cross-culturally
- Captured many of the symptoms of local syndrome

■ EPDS*

- Standard screener
- Short (10)
- Used cross-culturally
- Post-partum specific
- Some overlap with HSCL

*Note: HSCL-D = Hopkins Symptom Checklist; EPDS = Edinburgh Postpartum Depression Scale

Adaption of HSCCL and EPDS

- Used local terminology when symptom appeared in qualitative results
- Worked with translator and interviewers in group process for symptoms not in qualitative results
- Added symptoms represented in qualitative data but not in screeners

Finding Equivalence

- Standard measures
 - I have been anxious or worried for no good reason
 - Things have been getting on top of me
 - The thought of harming myself has occurred to me
- Qualitative data
 - Soucis soucis
 - ▶ *Worries a lot*
 - Azali ko supporter lisusu te
 - ▶ *Can't stand any more/overwhelmed*
 - Akoki pe kamiboma
 - ▶ *She commits suicide*

Adapted Questionnaire

	Not at all	A little	Quite a bit	Extremely
You have been able to laugh when something is funny (E)	0	1	2	3
Restless, like you can't sit still (H)	0	1	2	3
Low in energy, slowed down (H, Q)	0	1	2	3
Crying easily (E, H, Q)	0	1	2	3
Loss of sexual interest or pleasure (H, Q)	0	1	2	3
Poor appetite (H, Q)	0	1	2	3
Hopeless about the future (H, Q)	0	1	2	3
Sad (E, H, Q)	0	1	2	3
Lonely (H)	0	1	2	3
Thoughts of ending your life (E, H, Q)	0	1	2	3
Feeling of being trapped or caught (H)	0	1	2	3
That you are worrying too much about things (H, Q)	0	1	2	3
Tormented (Q)	0	1	2	3
Disputing often for no reason (Q)	0	1	2	3

Piloting and Revision

- EPDS

- Found that the “positive” symptoms did not make sense, e.g., “you have looked forward to the future with enjoyment”
 - ▶ In piloting, women told us that this is just not a sentiment that women have—that focus is on the present and not on the future

Adapted Questionnaire

	Not at all	A little	Quite a bit	Extremely
You have been able to laugh when something is funny (E)	0	1	2	3
Restless, like you can't sit still (H)	0	1	2	3
Low in energy, slowed down (H, Q)	0	1	2	3
Crying easily (E, H, Q)	0	1	2	3
Loss of sexual interest or pleasure (H, Q)	0	1	2	3
Poor appetite (H, Q)	0	1	2	3
Hopeless about the future (H, Q)	0	1	2	3
Sad (E, H, Q)	0	1	2	3
Lonely (H)	0	1	2	3
Thoughts of ending your life (E, H, Q)	0	1	2	3
Feeling of being trapped or caught (H)	0	1	2	3
That you are worrying too much about things (H, Q)	0	1	2	3
Tormented (Q)	0	1	2	3
Disputing often for no reason (Q)	0	1	2	3

Piloting and Revision

- EPDS

- Found that the “positive” symptoms did not make sense, e.g., “you have looked forward to the future with enjoyment”
 - ▶ In piloting, women told us that this is just not a sentiment that women have—that focus is on the present and not on the future

N. Uganda Adolescents

Two Tam	Kumu	Par	Kwo Maracao	Ma Lwor
<ul style="list-style-type: none"> ▪ Lots of thoughts ▪ Constant worries ▪ Pain all body ▪ Brain is not functioning ▪ Think self is of no use ▪ Think about suicide ▪ Talk about problems ▪ Sits alone ▪ Lose interest in school ▪ Get headaches ▪ Feel sad ▪ Think of bad things ▪ Do not care if live or die ▪ Don't feel like talking ▪ Forgetful ▪ Weak ▪ Cry continuously 	<ul style="list-style-type: none"> ▪ Loss of appetite ▪ Pain in heart ▪ Sits with cheek in palm ▪ Cries when alone ▪ Does not sleep at night ▪ Talks problems ▪ Lies down all the time ▪ Lots of worries ▪ Headaches ▪ Feels cold ▪ Weak ▪ Doesn't feel like talking ▪ Disobedient 	<ul style="list-style-type: none"> ▪ Lots of thoughts ▪ Wants to be alone ▪ Easily annoyed ▪ Holds head ▪ Lost concentration ▪ Drinks alcohol ▪ Think about suicide ▪ Doesn't greet people ▪ Sits alone ▪ Lots of worries ▪ Doesn't think straight ▪ Mutter to myself ▪ Doesn't trust ▪ Can't do anything to help self ▪ Insult friends ▪ Disobedient ▪ Weak ▪ Cry continuously 	<ul style="list-style-type: none"> ▪ Fights ▪ Uses bad language ▪ Is disrespectful ▪ Misbehaves ▪ Drink alcohol ▪ Loses interest in school ▪ Disinterested ▪ Deceitful ▪ A rough person ▪ Uses drugs ▪ Disobedient 	<ul style="list-style-type: none"> ▪ Clings to elders ▪ Thinks has no future ▪ Constantly running ▪ Doesn't like noise ▪ Fast heart rate ▪ Fear being alone ▪ Loss of appetite ▪ Wants to be alone ▪ Does not sleep at night ▪ Drinks alcohol ▪ Doesn't greet people ▪ Thinks people are chasing

Development of New Tool

- Reviewed common instruments, i.e., CBCL
 - None appeared appropriate
- Required development of new instrument
 - Acholi Psychosocial Assessment Instrument (APAI)
 - Included all symptoms of local syndromes and additional prosocial behaviors

Acholi Psychosocial Assessment Instrument: APAI

- Categorized into five local syndromes similar to DSM-IV/ICD-10 domains
 1. Depression: Two Tam, Gi Tye Ki Par, and Kumu
 2. Anxiety: Ma Lwor
 3. Conduct problems: Kwo Maraco/Gin Lugero
- Additional qualitative work added prosocial subscale
- 58 questions, 6 subscales