A Cross-cultural Comparison of Psychological Distress among Individuals with HIV/AIDS

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HIV and Psychological Distress

- **Levels of psychological distress have been shown to vary through the HIV disease continuum** (Perry et al., 1990; Atkinson & Grant, 1994; Judd et al., 2000)
  - Depression
  - Anxiety
  - Lack of perceived control
  - Elevated stress levels
  - Death-related issues
- **Lower levels of psychological distress have been documented to increase health-protective behaviors** (Paterson et al., 2000; Suarez et al., 2001; Arnsten et al., 2002)
  - Safer sex practices
  - Serostatus disclosure to sex partner(s)
  - Adherence to medication
  - Engagement and adherence to medical care

Cross-Cultural Assessment

- Little is known about the levels of psychological distress in sub-Saharan Africa
  - Translation and cross-translation of established instruments assist measurement in new cultures
    - Somatization has been commonly documented (Kirmayer, 1993; Ice & Yogo, 2006)
    - Depression has been screened in some samples (Ice & Yogo, 2006; Kaaya et al., 2002; Uwakwe, 2003)
  - Understanding differences in expression of psychological distress has potential to impact medical practice, and form how mental health systems are developed

AMPATH

- Adult HIV prevalence in Kenya estimated at 5.2%
- Indiana University and Moi University Schools of Medicine partnership
- Academic Model for the Prevention and Treatment of HIV/AIDS

  Services offered:
  - HIV treatment
  - HIV prevention
  - Psychosocial support

Study Samples

HIV-infected population

- Self-enrolled mental health care
  Individual, couple, group therapy (Atlanta, Georgia)

  Psychosocial support groups (Eldoret, Kenya)

Randomly selected from samples

- Georgia (n = 581)
  May 2004-May 2006
  60% of the cases selected (n = 339)

- Kenya (n =397)
  November 2005
  75% of the cases selected (n = 294)

Study Design

- Cross-sectional assessments

  Baseline measures between May 2004 and May 2006 (Atlanta)

  One week period November 2005 (Kenya)

Study approved by Institutional Review Board of Indiana University-Bloomington and Institutional Research Ethics Committee, Kenya

Measures

- Demographic characteristics
  - Age
  - Gender
  - Tribal affiliation/Race/Ethnicity
  - Relationship status
  - Number of children
  - Employment status
  - Highest level of education attained
- HIV-related characteristics
  - Latest CD4 count
  - Length of time with HIV and/or AIDS diagnosis

Measures

- **Psychological Distress Symptoms**
  - Brief Symptom Inventory (BSI)
  - 53 item questionnaire
  - Measures symptoms of psychological distress by dimensions:
    - Anxiety
    - Depression
    - Hostility
    - Interpersonal sensitivity
    - Obsessive-Compulsive
    - Paranoid ideation
    - Phobic anxiety
    - Psychoticism
    - Somatization
    - Global severity index
  - Caseness refers to a cut off t-score $\geq$ 63 that symptoms suggest further psychiatric evaluation

Participant Characteristics

	Kenya (n = 294)		**Georgia (n = 334)**		
	n	**%**	**n**	**%**	**p**
Female	216	73.5	85	25.1	0.001
African American	n/a		192	56.6	
Hispanic/Latino	n/a		55	16.2	
	Mean	**SD**	**Mean**	**SD**	**p**
Age	36.2	8.0	41.6	8.8	0.001

Relationship Status

	Kenya (n = 294)		**Georgia (n = 334)**		
	n	**%**	**n**	**%**	**p**
Married	114	38.8	31	9.1	0.001
Divorced	27	9.2	42	12.4	
Single	69	23.5	198	58.4	
Significant other/partner	4	1.4	54	15.9	
Widow	80	27.2	8	2.4	

Employment Status

Kenya (n = 294)			**Georgia** (n = 334)		
	n	**%**	**n**	**%**	**p**
Full time	30	10.1	49	15.3	0.001
Part time	24	8.1	37	11.5	
Unemployed	208	69.8	98	30.5	
Disability	n/a	n/a	118	36.8	

Education

Kenya (n = 294)			**Georgia (n = 334)**		
Levels	n	%	Levels	n	%
None	16	5.4	1st-6th grade	10	2.9
Standard 1-3	19	6.4	7th-11th grade	67	19.8
Standard 4-8	120	40.3	High school graduate	89	26.3
Form 1-2	44	14.8	Some college	104	30.7
Form 3-4	94	31.5	College graduate	52	15.3
University	5	1.7	Some graduate school	13	3.8

HIV-related Characteristics

	Kenya			Georgia			
		n	%		n	%	p
Diagnosed with AIDS		130	43.6		99	29.2	0.001
	n	Mean	SD	n	Mean	SD	p
Length of time with HIV (months)	265	28.5	29.9	308	98.8	74.1	0.001
Length of time with AIDS (months)	123	20.2	19.9	81	86.3	142.6	0.001
CD4 cell count/mm^3	253	419.2	557	227	352.9	214.1	0.001

BSI Scores by Dimension (Raw scores)

	Kenya			Georgia			
	n	Mean	SD	n	Mean	SD	p
Anxiety	254	1.1	0.9	306	1.5	1.1	0.001
Depression	246	1.0	1.0	306	1.6	1.1	0.001
Interpersonal sensitivity	254	1.2	1.0	305	1.4	1.2	0.002
Hostility	260	0.9	0.8	306	1.1	0.9	0.11
Obsessive-compulsive	248	1.3	0.9	306	1.7	1.1	0.001
Paranoid ideation	257	1.5	1.0	306	1.5	1.0	0.85
Phobic anxiety	263	0.8	0.8	306	0.9	1.0	0.78
Psychoticism	260	1.0	0.8	305	1.3	1.0	0.001
Somatization	250	1.1	0.8	306	1.2	1.0	0.47
Global severity index	144	1.0	0.7	306	1.4	0.9	0.001

BSI Scores by Dimension (T-score)

	Kenya			Georgia			
	n	Mean	SD	n	Mean	SD	p
Anxiety	254	43.3	9.4	306	48.8	11.3	0.001
Depression	246	42.3	9.3	306	49.4	10.1	0.001
Hostility	254	47.3	9.3	305	49.8	9.6	0.002
Interpersonal sensitivity	260	45.5	9.7	306	49.2	11.1	0.001
Obsessive-compulsive	248	47.1	9.6	306	51.2	11.5	0.001
Paranoid ideation	257	53.2	9.0	306	54.0	9.4	0.32
Phobic anxiety	263	50.5	8.2	306	50.6	10.4	0.89
Psychoticism	260	47.4	9.4	305	51.7	10.6	0.001
Somatization	250	53.5	9.1	306	55.2	10.4	0.04
Global severity index	144	45.1	10.1	306	51.4	12.0	0.001

Proportion of Sample which Meet "Caseness" ($t \geq 63$)

	Kenya		Georgia	
	n	%	n	%
Anxiety	5	2.0	41	13.4
Depression	6	2.4	37	12.1
Hostility	12	4.7	28	9.2
Interpersonal sensitivity	9	3.5	45	14.7
Obsessive-compulsive	9	3.6	48	15.7
Paranoid ideation	43	16.7	55	18.0
Phobic anxiety	16	6.1	43	14.1
Psychoticism	13	5.0	44	14.4
Somatization	33	13.2	74	24.2
Global severity index	4	2.8	57	18.6

BSI "Caseness" by Dimension

	Kenya			Georgia			
	n	Mean	SD	n	Mean	SD	p
Anxiety	5	65.8	2.2	41	67.5	4.5	0.41
Depression	6	66.0	2.5	37	66.6	3.1	0.66
Hostility	12	66.4	4.4	28	68.1	5.4	0.34
Interpersonal sensitivity	9	67.4	3.7	45	66.6	3.5	0.50
Obsessive-compulsive	9	68.2	4.5	48	69.0	5.4	0.70
Paranoid ideation	43	66.0	2.9	55	67.8	4.2	0.01
Phobic anxiety	16	66.1	1.5	43	67.3	4.7	0.34
Psychoticism	13	67.2	3.8	44	69.0	4.6	0.20
Somatization	33	67.6	3.8	74	68.6	4.3	0.25
Global severity index	4	69.0	5.5	57	69.5	4.9	0.85

Participant Summary

- Kenyan sample was
  - Younger and female
  - Married and widowed (rather than single or partnered)
  - Higher rates of unemployment
  - Lower levels of education attainment
  - Shorter time with HIV and AIDS
  - More reported being diagnosed with AIDS

  - Mimic national epidemics

Psychological Distress Summary

- Georgian sample significantly higher than Kenyan sample among:
  - Anxiety
  - Depression
  - Interpersonal sensitivity
  - Obsessive compulsivity
  - Psychoticism
  - Global severity index

  Hostility and somatization were significantly higher when accounting for gender and norming sample (t-scores)

Caseness

"Caseness" for paranoid ideation and somatization occur most often with both Kenyan and Georgian sample

Higher levels of paranoid ideation occur among the Georgian sample

Conclusions

- Similarities of extreme psychological distress occur among these samples
  - Somatization
    - Similar to previous findings regarding lower education in African sample
  - Paranoid ideation
    - Previous findings similar with African American samples
      - Question symptom expression and disorder definition

Conclusions

Psychological distress may be expressed differently across populations living with the same disease

Highlights the need to understand how symptoms are expressed to when developing systems of care and subsequently providing services to those in these populations