

The Six-Item Non-specific Distress Battery in the Core Questionnaire of the National Health Interview Survey (NHIS)

Analysis of the 1999 NHIS

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Background

- Several mental health instruments exist in the field
- Majority of mental health diagnostic and dimensional instruments are large and time consuming
- Survey constraints surrounding the core questionnaire requires brevity in items measuring psychopathology
- Six-item non-specific distress battery introduced in the 1997 NHIS
- Utilize battery as a dimensional assessment tool

Goals

- Examine non-specific distress in the U.S. adult population
- Establish some degree of reliability and validity for the six-item non-specific distress measure

Methods

- Data Source: 1999 NHIS
- Sample: 30,801 persons (age > 17) representing the civilian, noninstitutionalized adult population in the United States
 - Response Rate: 70%
 - Weighted N = 199.6 million U.S. adults
- Analysis: Data weighted for population estimates and adjusted for non-response and sampling characteristics

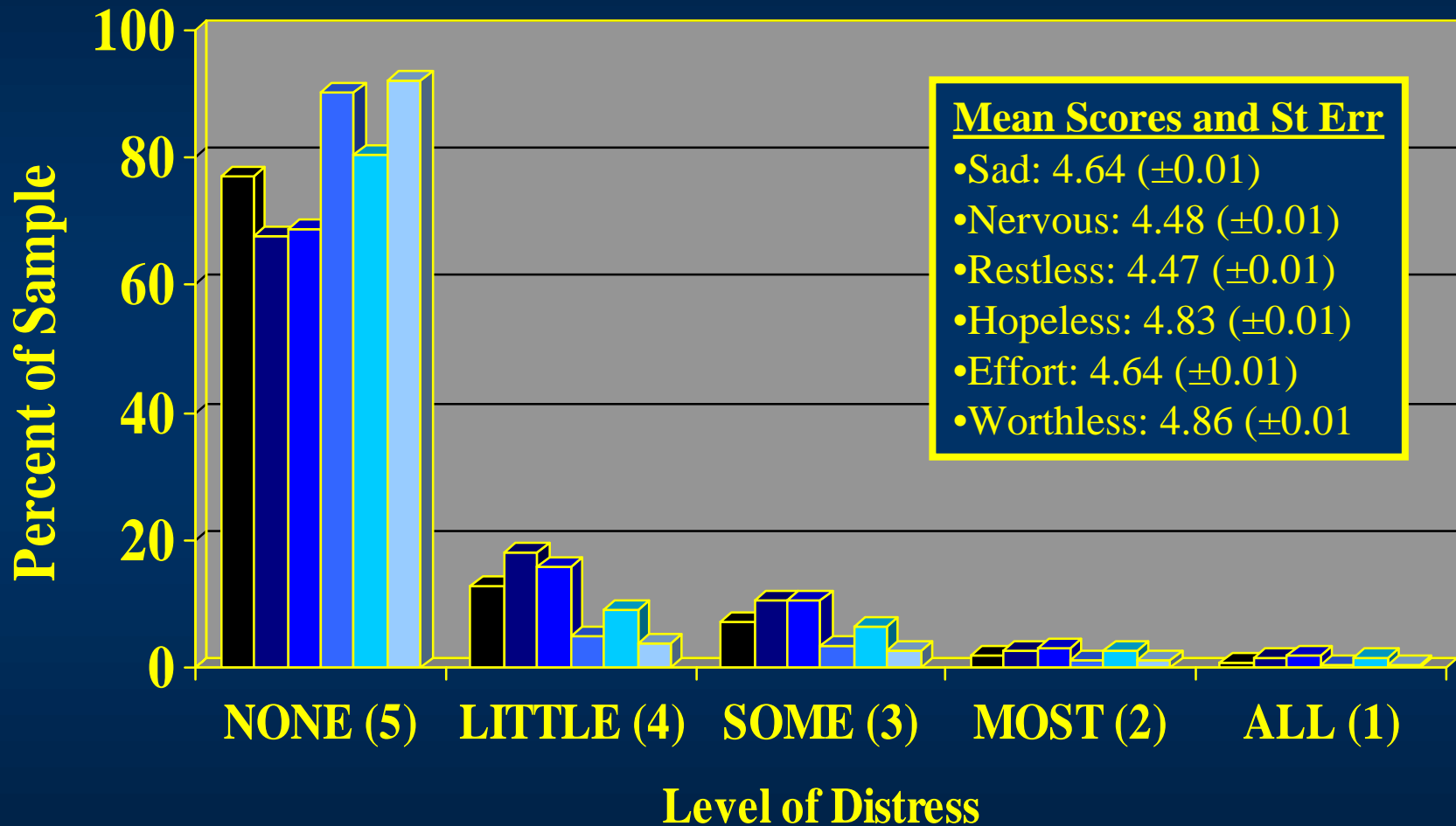
Non-specific Distress Items

- During the past 30 days, how often did you feel....
 - So Sad that nothing could cheer you up?
 - Nervous?
 - Restless or fidgety?
 - Hopeless?
 - That everything was an Effort?
 - Worthless?

Non-specific Distress Items

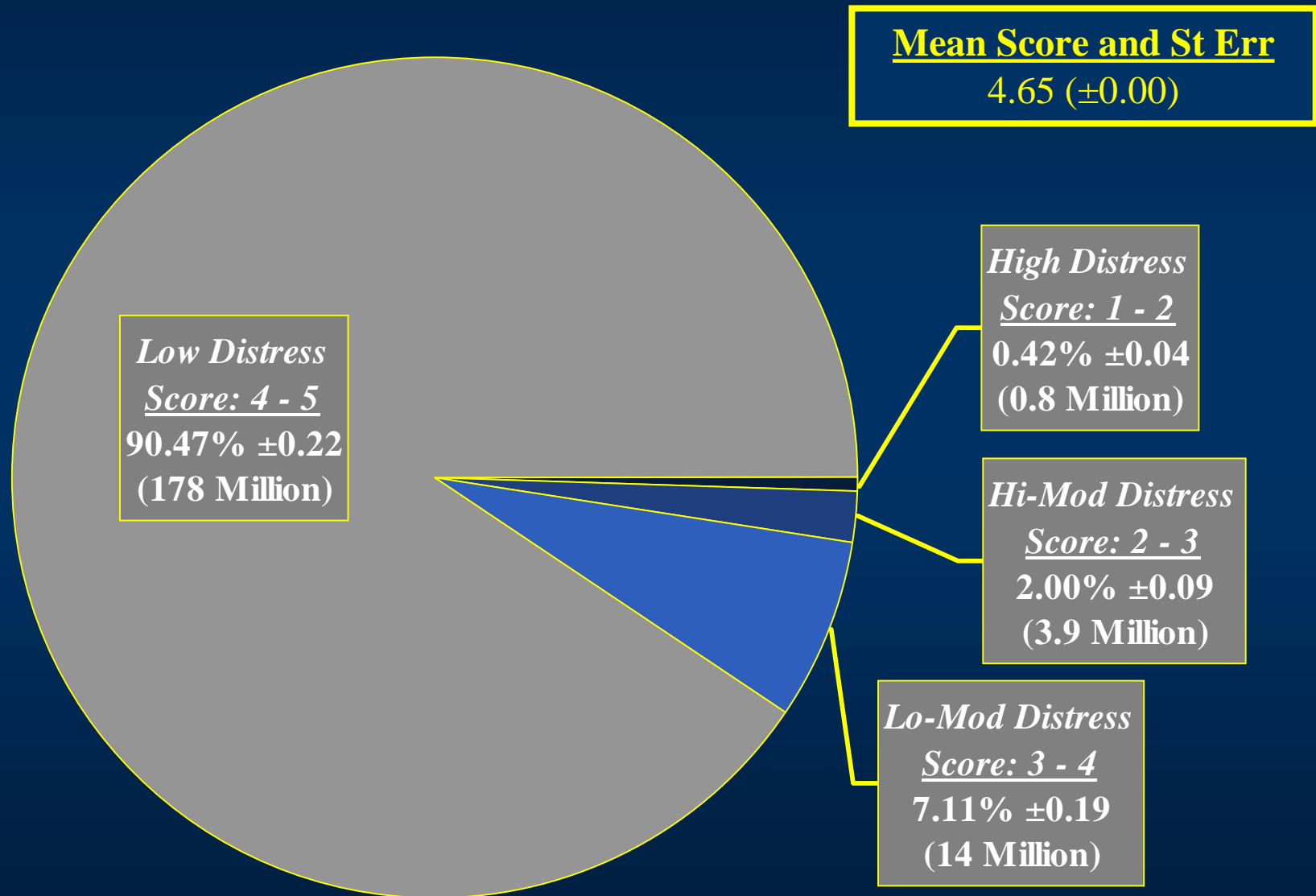
- Dimensional response:
 - All of the time
 - Most of the time
 - Some of the time
 - A Little of the time
 - None of the time
- Total Distress Score: average of all six responses
 - Collapsed Scoring:
 - 1.00 – 1.99 High Distress
 - 2.00 – 2.99 High-Moderate Distress
 - 3.00 – 3.99 Low-Moderate Distress
 - 4.00 – 5.00 Low Distress

Distribution of Distress Item Scores



■ Sad ■ Nervous ■ Restless ■ Hopeless ■ Effort ■ Worthless

Distribution of Total Non-specific Distress

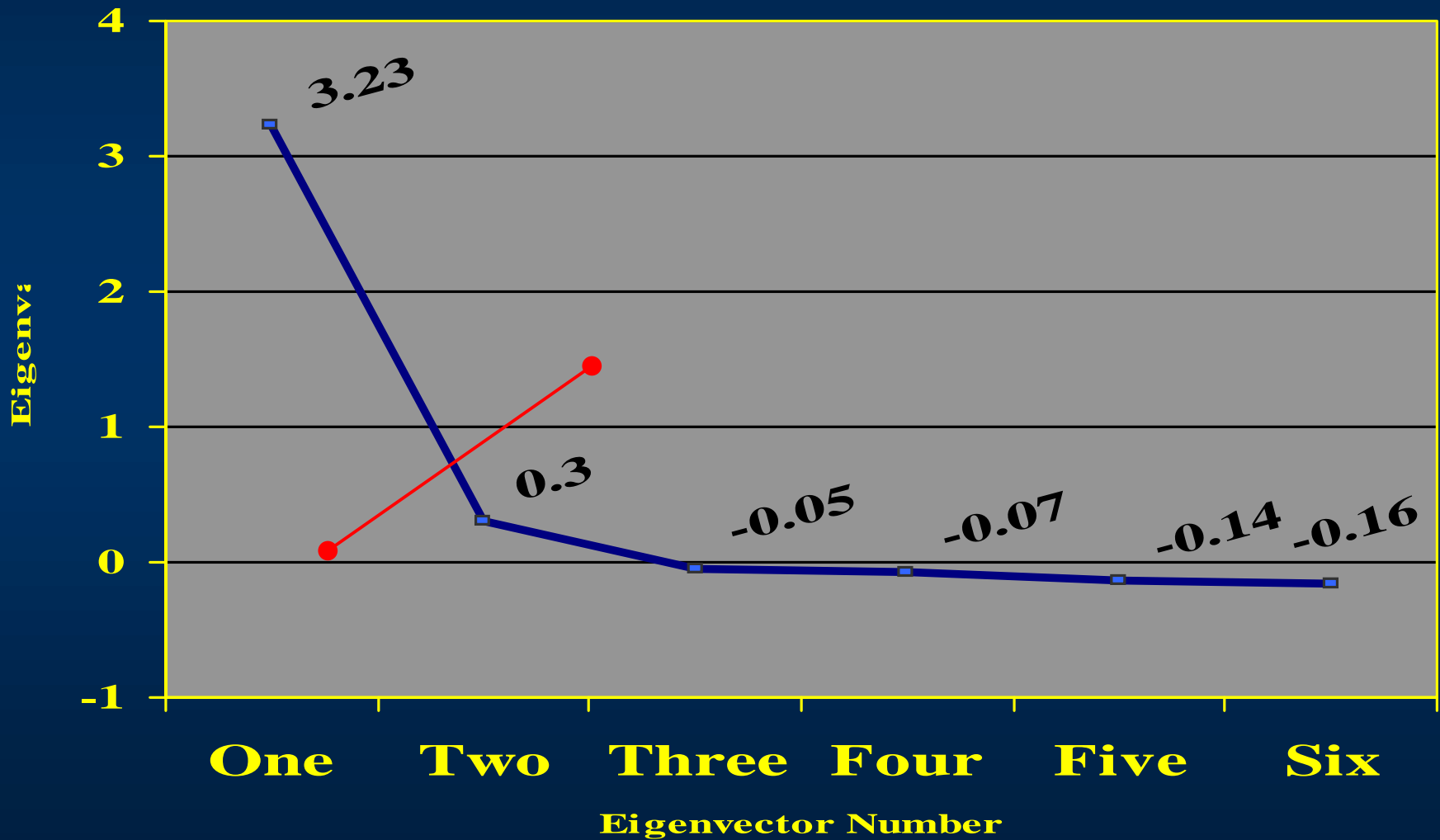


Correlations among Distress Items

	Sad	Nervous	Restless	Hopeless	Effort	Worthless
Sad						
Nervous	0.50					
Restless	0.47	0.64				
Hopeless	0.58	0.45	0.45			
Effort	0.54	0.49	0.51	0.58		
Worthless	0.52	0.42	0.41	0.71	0.55	
Total Distress	0.77	0.78	0.79	0.77	0.79	0.73

Cronbach's Alpha
0.86

Exploratory Factor Analysis on Distress Items



Demographic Characteristics

		TOTAL DISTRESS			
		HIGH	HI-MOD	LO-MOD	LOW
Age Group	18 – 24	0.3%	1.6%	8.6%	89.5%
	25 – 44	0.4%	2.0%	7.1%	90.6%
	45 – 64	0.6%	2.3%	7.1%	90.0%
	65 +	0.4%	1.7%	5.9%	92.0%
Sex	Male	0.3%	1.4%	5.7%	92.6%
	Female	0.5%	2.6%	8.4%	88.5%
Race/Ethnicity	Non-hispanic White	0.4%	1.9%	7.1%	90.7%
	Non-hispanic Black	0.5%	2.5%	7.8%	89.3%
	Hispanic	0.7%	2.3%	6.6%	90.4%
	Non-hispanic Other	0.5%	1.6%	7.6%	90.3%

Sociodemographic Characteristics

		TOTAL DISTRESS			
		HIGH	HI-MOD	LO-MOD	LOW
Marital Status	Single/Unmarried	0.4%	2.1%	8.7%	88.8%
	Married	0.3%	1.5%	5.6%	92.7%
	Divorced/Separated/Widowed	0.9%	3.6%	10.2%	85.3%
Education	Less than High School	1.0%	3.6%	9.3%	86.1%
	High School Equivalent	0.3%	2.0%	7.8%	89.9%
	College Graduate	0.2%	0.8%	3.9%	95.2%
Family Income	Less than \$20K	1.3%	4.0%	12.0%	82.8%
	\$20K or More	0.2%	1.5%	5.9%	92.4%

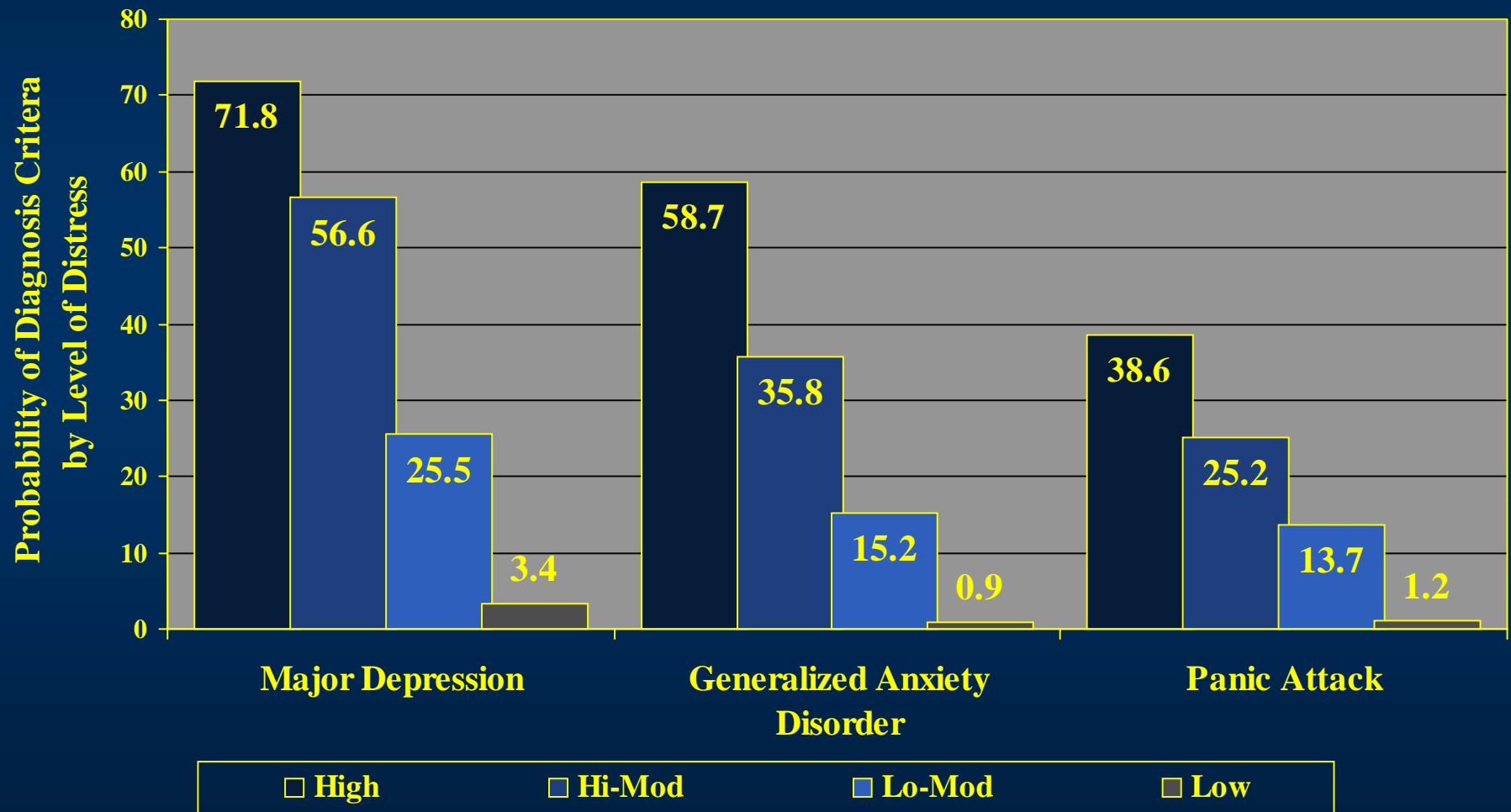
Construct Validity of Distress Scale: Mental Disorder Diagnoses (CIDI-SF)

Among Adults
who Reported:

Percentage screened positive for
mental disorder on CIDI-SF

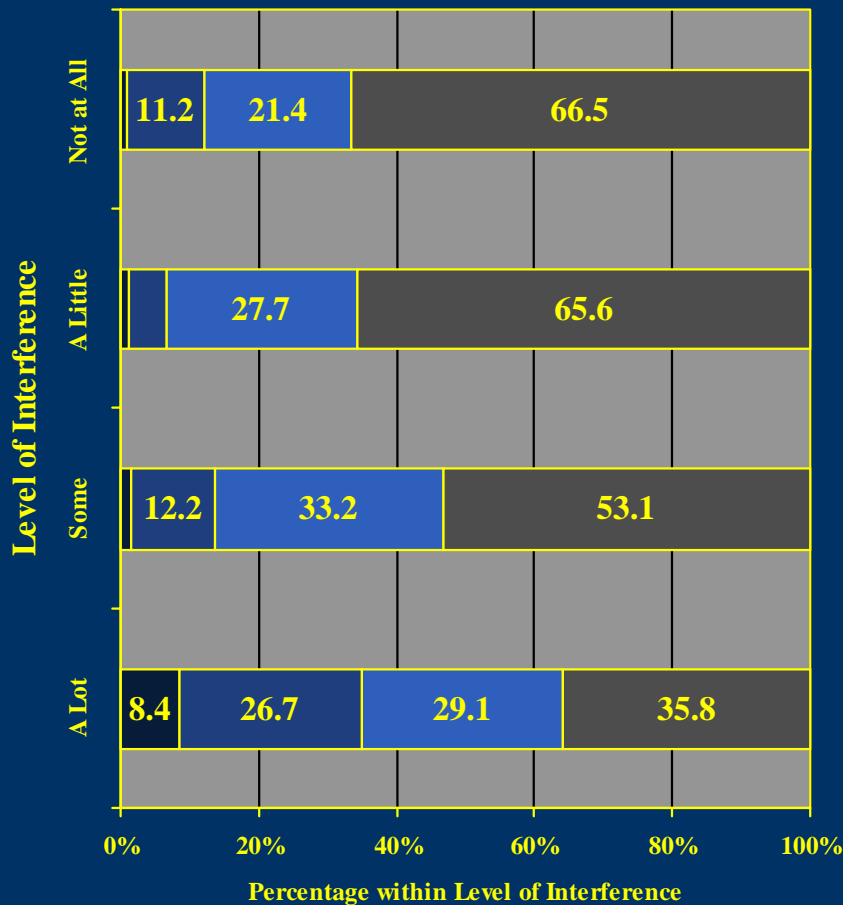
Low Distress	4.9%
Lo-Mod Distress	38.2%
Hi-Mod Distress	71.6%
High Distress	79.6%

Construct Validity of Distress Scale: Mental Disorder Diagnoses (CIDI-SF)



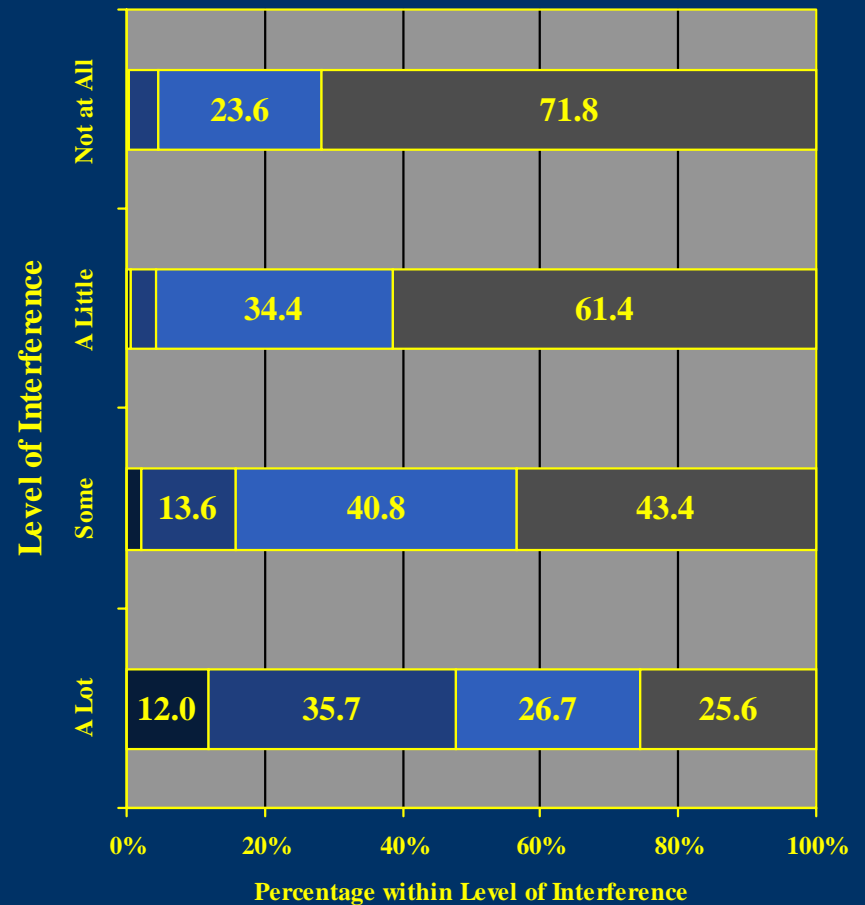
Construct Validity of Distress Scale: Interference with Life Activities within Mental Disorders

Within Major Depression



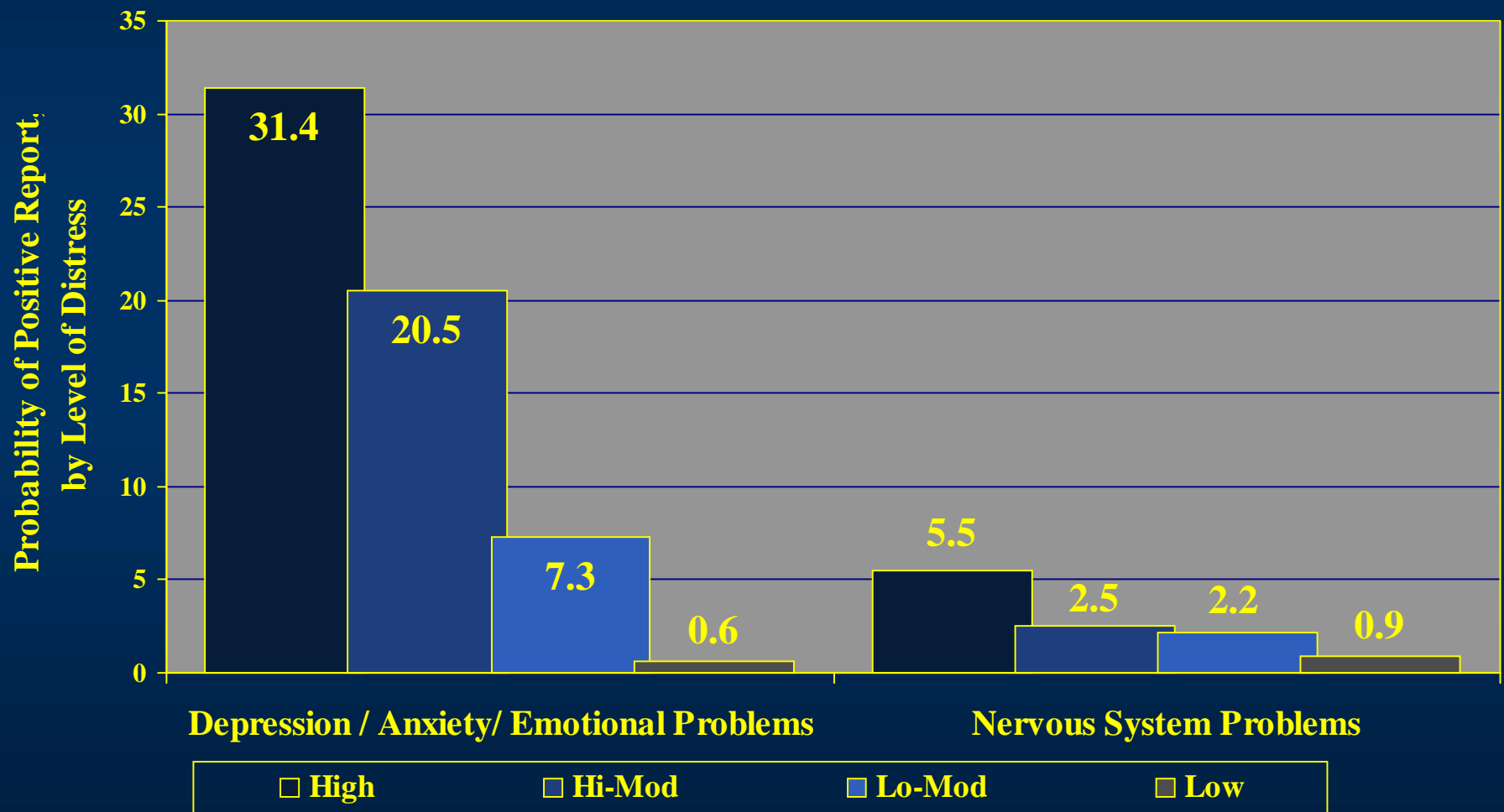
High
 Hi-Mod
 Lo-Mod
 Low

Within Generalized Anxiety Disorder

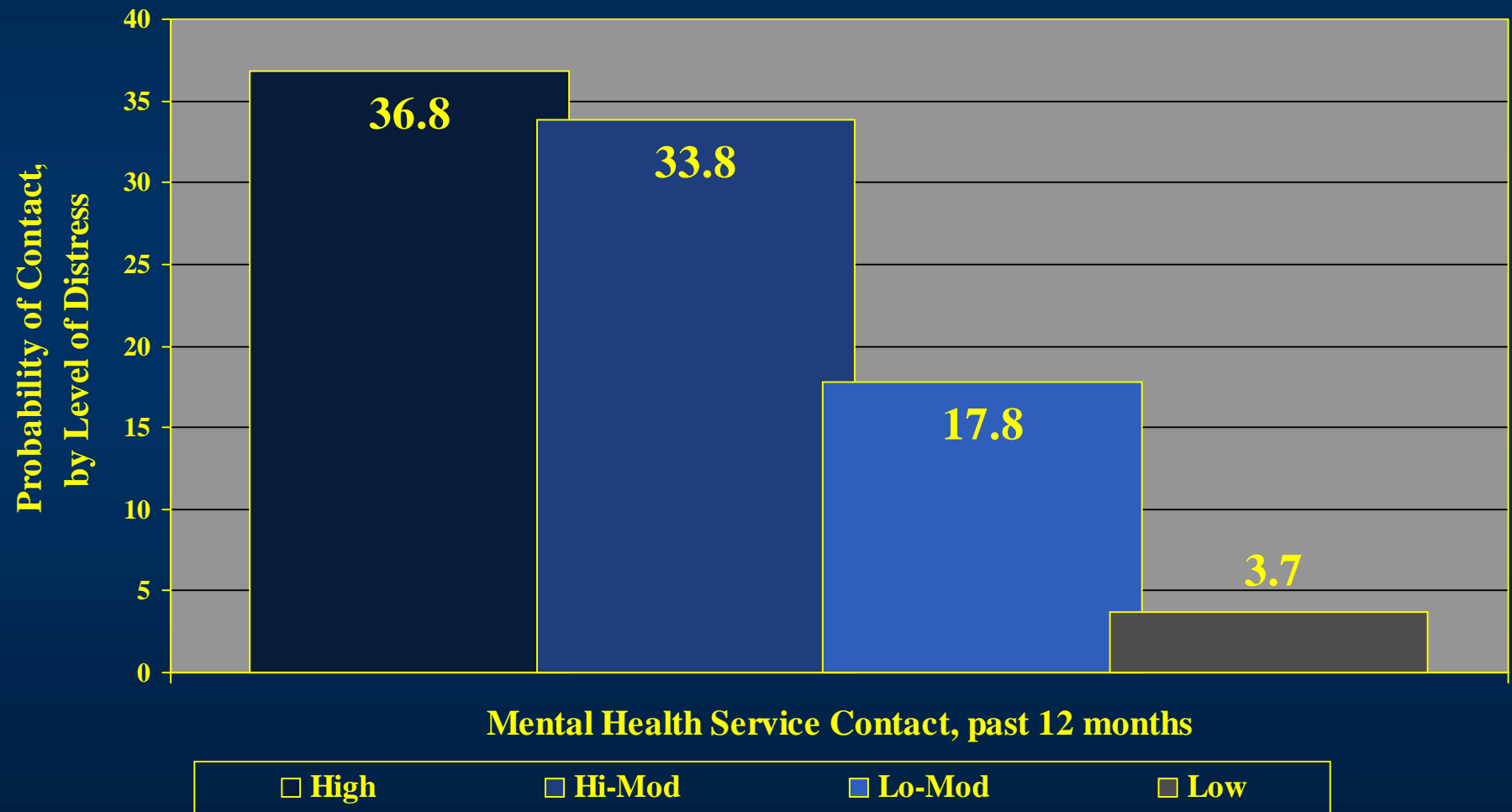


High
 Hi-Mod
 Lo-Mod
 Low

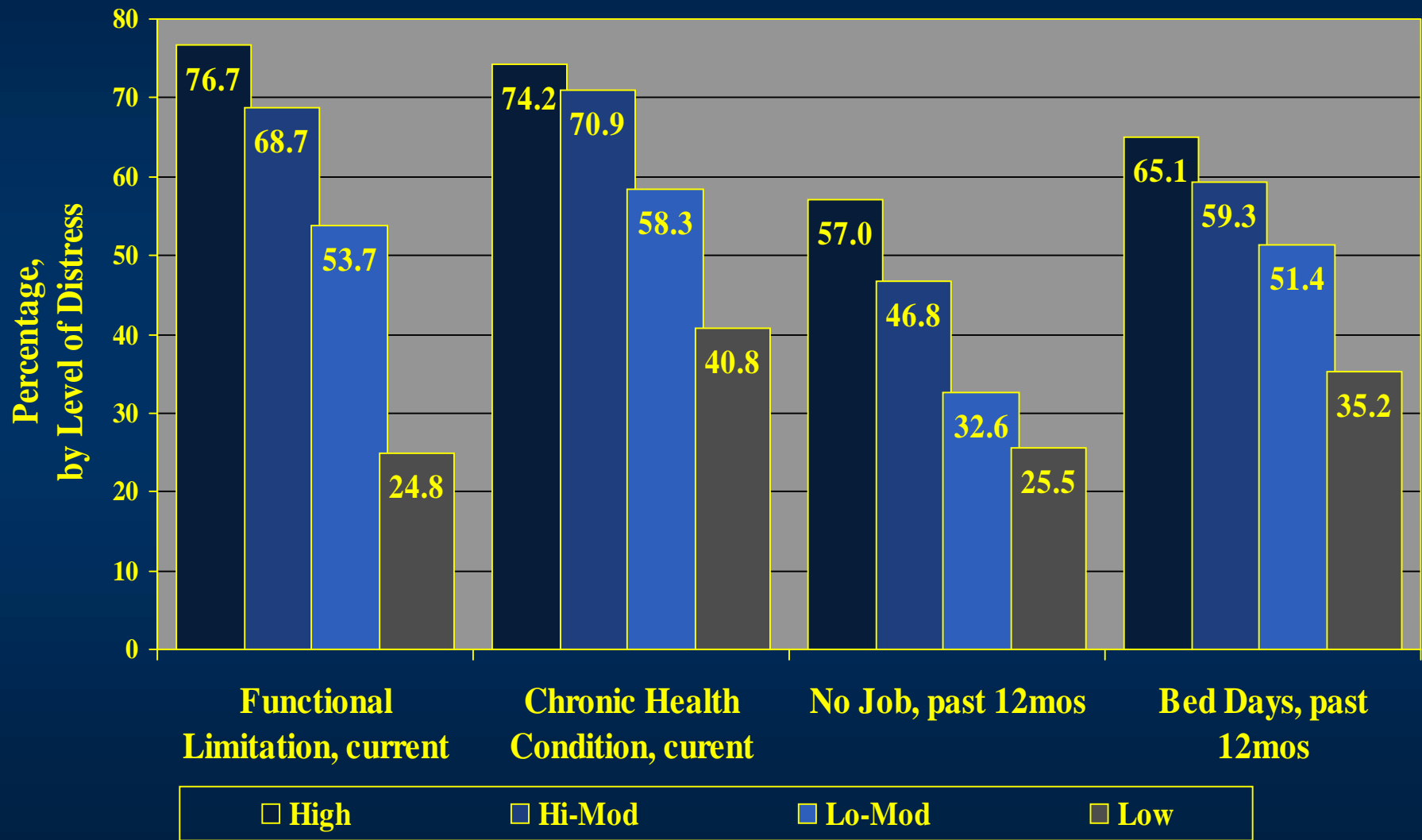
Construct Validity of Distress Scale: Report of Limiting Health Problems



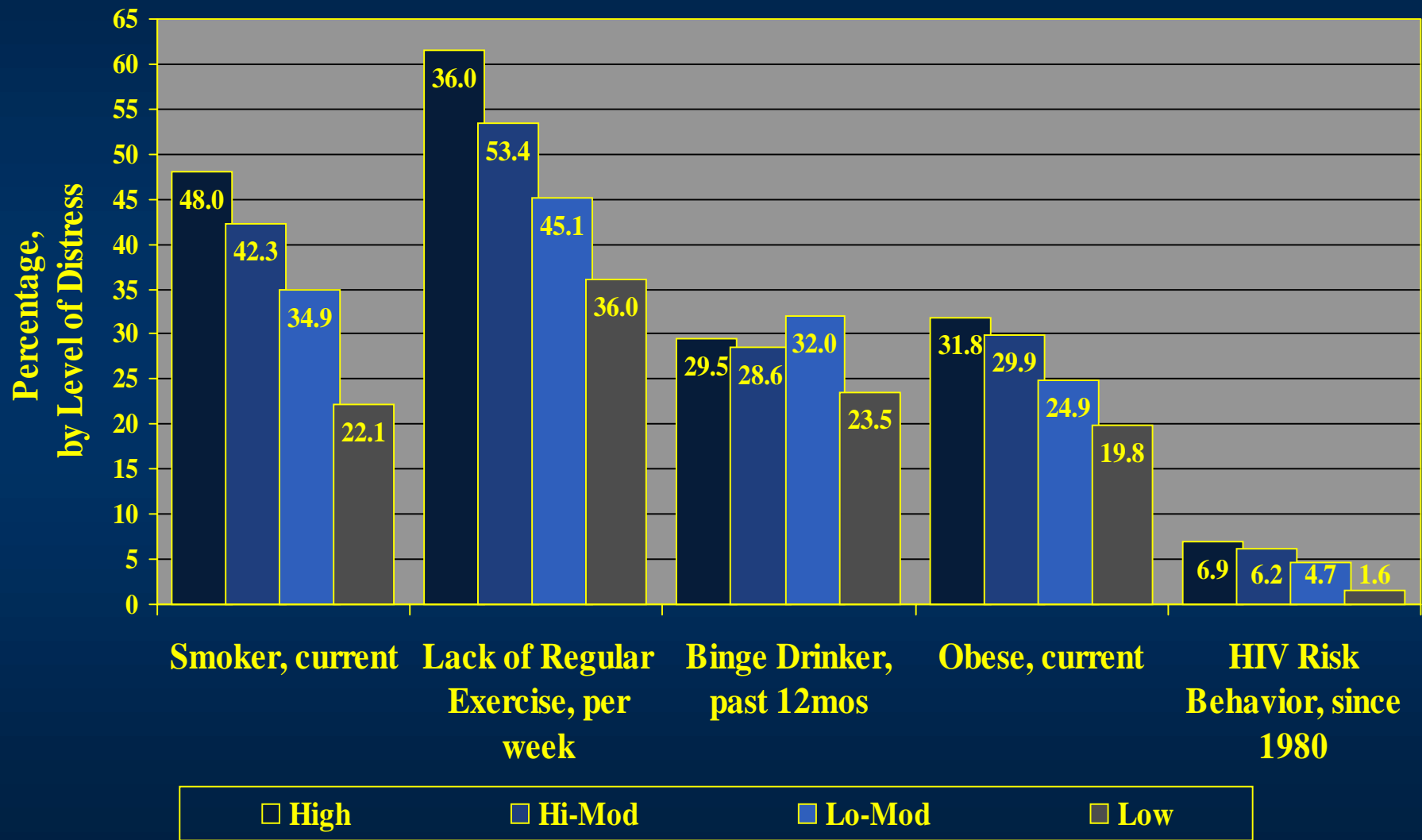
Predictive Validity of Distress Scale: Report of Mental Health Service Contact



External Validity of Distress Scale: Functioning and Health Conditions



External Validity of Distress Scale: Risk Behaviors



Summary

- The distress battery represents six question items measuring a heterogeneous set of mental health problems
- Question items correlated with one another
- Question items loaded on a single, unifying dimension
- Distress levels were elevated among those who screened positive for mental disorder
- Distress levels were predictive of service contact
- Distress levels were associated with variables likely to be related to mental health problems
- NHIS Data: <http://www.cdc.gov/nchs/nhis.htm>