Mental health in homeless or unstably housed people living with HIV

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Overview

- Many studies have shown that homelessness and mental health problems co-occur.

- Homeless people living with HIV/AIDS (PLWHA) face additional difficulties that may affect their mental health.

- Few studies have investigated mental health among homeless people living with HIV/AIDS.

Study Goal

Investigate mental health status and factors associated with poorer mental health in homeless or unstably housed persons living with HIV/AIDS

Study Overview

- Current study used baseline data from a longitudinal RCT investigating effects of providing housing to homeless or unstably housed people with HIV on health status and HIV risk behaviors.

- Baseline:
  - 644 homeless or unstably housed people across 3 sites (Baltimore, Chicago, Los Angeles)

Participants

- Low income (≤ 50% median income for area)
- HIV+
- Homeless / Severe risk of homelessness
- At least 18 years old
- Speak English or Spanish
- Able to provide informed consent

Homelessness /
Severe Risk of Homelessness

- Homeless
  - In places not meant for human habitation
  - In emergency shelter
  - In transitional / supportive housing for less than 6 months

- Severe Risk of Homelessness
  - Timing (Imminent) and Likelihood (Certainty)
  - Being evicted or losing housing within short period of time (hours or days)
  - Changing residences frequently / overcrowding / doubling
  - Determined case by case

Data Collection

- Computer-based individual interviews
  - Demographics
  - Housing information
  - Health and well-being
  - Social context
  - Sexual behaviors
  - Alcohol and drug use
  - Medical services and adherence to medications

- Biological markers (blood sample)
  - Viral load
  - CD4

Mental Health Measures

- CES-D: Center for Epidemiologic Studies – Depression Scale (Radloff, 1977)
  - 10 items, α = .85
  - Range: 0 – 30
  - Score ≥ 10 indicates depressive symptoms

- PSS: Perceived Stress Scale (Cohen & Williamson, 1988)
  - 10 items, α = .85
  - Range: 10 – 50
  - Higher score = Higher perceived stress

Mental Health Measures (cont'd.)

- MCS: SF-36 Mental Component Summary Scale (Hays, Sherbourne, & Mazel, 1993)
  - 36 items
  - 8 subscales (physical and mental health)
  - Subscales weighted and summed to create MCS
  - Population normed scale
    - Population mean = 50, SD = 10
  - Lower score = poorer mental health

HIV Risk and Health Measures

- Total number of sex partners, past 90 days
- Unprotected anal or vaginal sex (all partners, all serostatus), past 90 days
- Drug use, past 90 days (used any of 11 drugs)
- Alcohol frequency (>=3 drinks more than once a week)
- On highly active antiretroviral therapy (HAART)
- HIV medication adherence, past 2 days
- Regular source of medical care
- CD4
- Viral load
- SF-36 Physical Component Summary Scale

Participant Characteristics

Age (mean)	41
Gender (% male)	68
Race / Ethnicity (%)	
Black	79
Hispanic	9
White	8
Other	4
Education (%)	
< High school	35
High school / GED	29
> High school	36
Marital status (%)	
Never married	69
Married	11
Divorced / Separated	16
Widowed	5

Participant Characteristics (cont'd)

Ever arrested (% yes)	79
Currently working (%)	
No	83
Part-time	12
Full-time	6
Household income, past 30 days (%)	
<$400	28
$400 to <$600	18
$600 to <$1000	33
≥ $1000	21
Income source, past 30 days (%)	
Public only	50
Private only	7
Public and private	42
No identified source	2

Participant Characteristics (cont'd)

Sexual identity (%)

Heterosexual	52
Gay or lesbian	33
Bisexual / don't know / not sure	6
Homeless past 90 days (%)	27
Ever diagnosed with AIDS (%)	39
Physical abuse, ever (%)	77
Sexual abuse, ever (%)	48

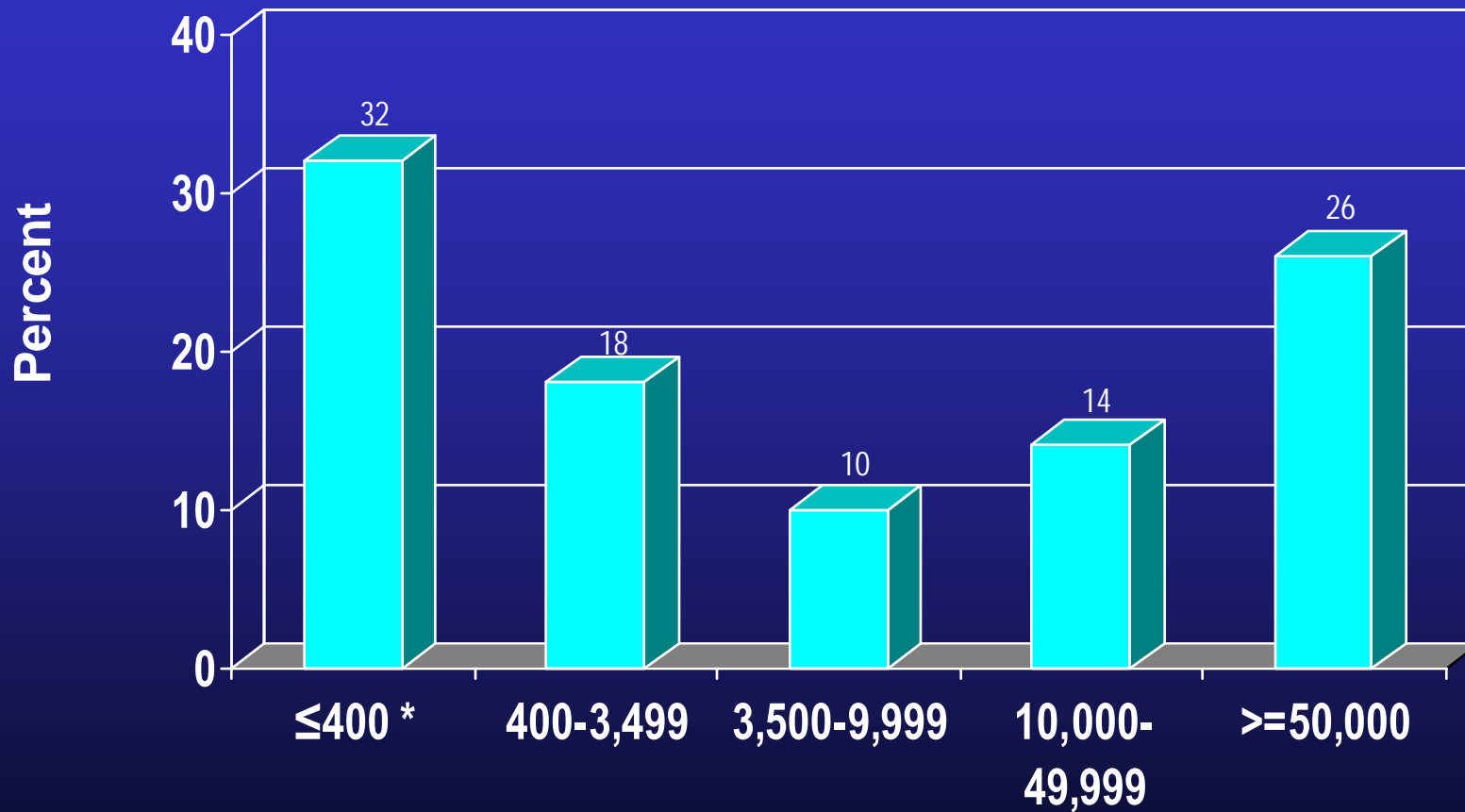# Time Since HIV Diagnosis

- Median = 8 years
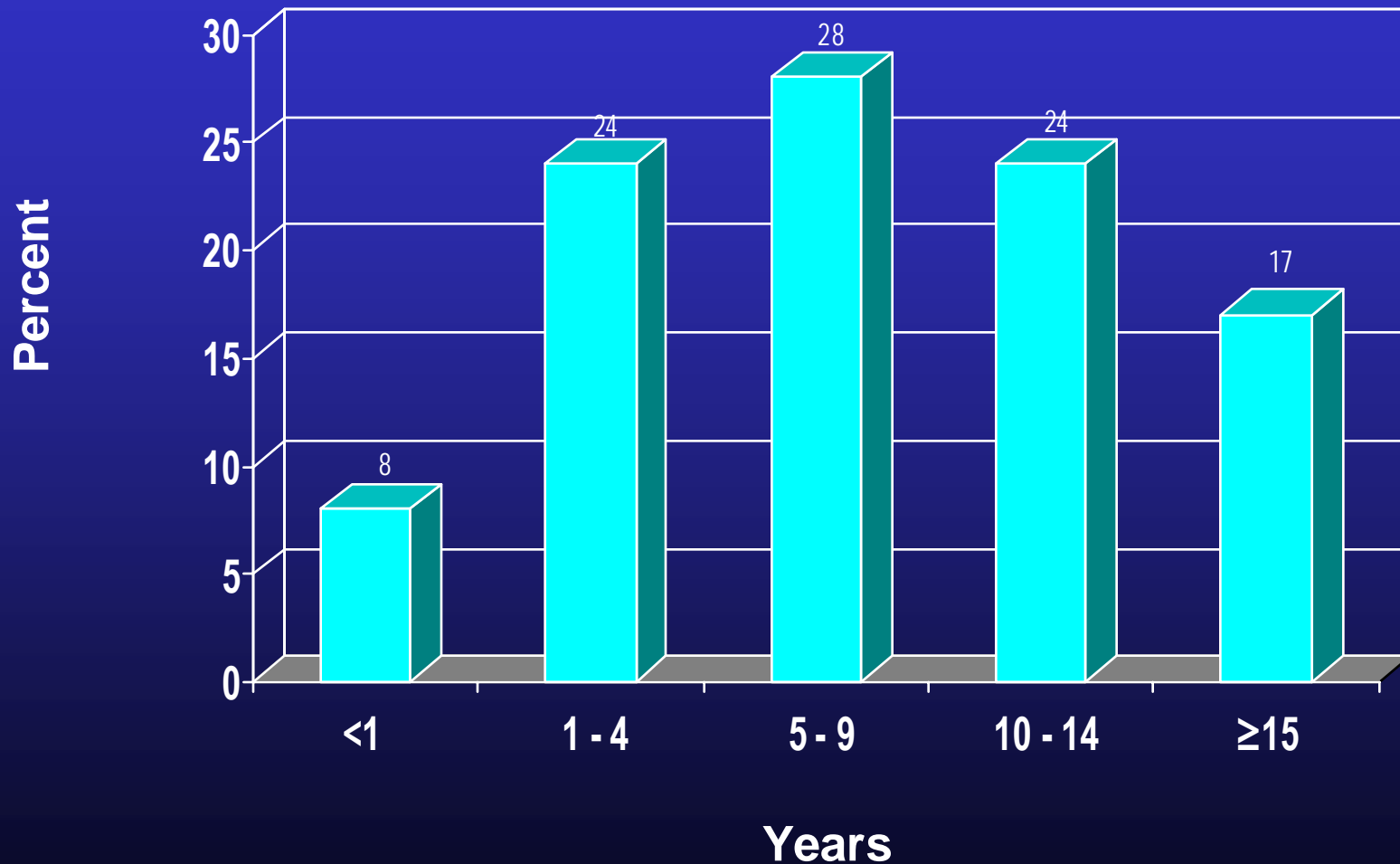
CD4⁺ T Cell Count
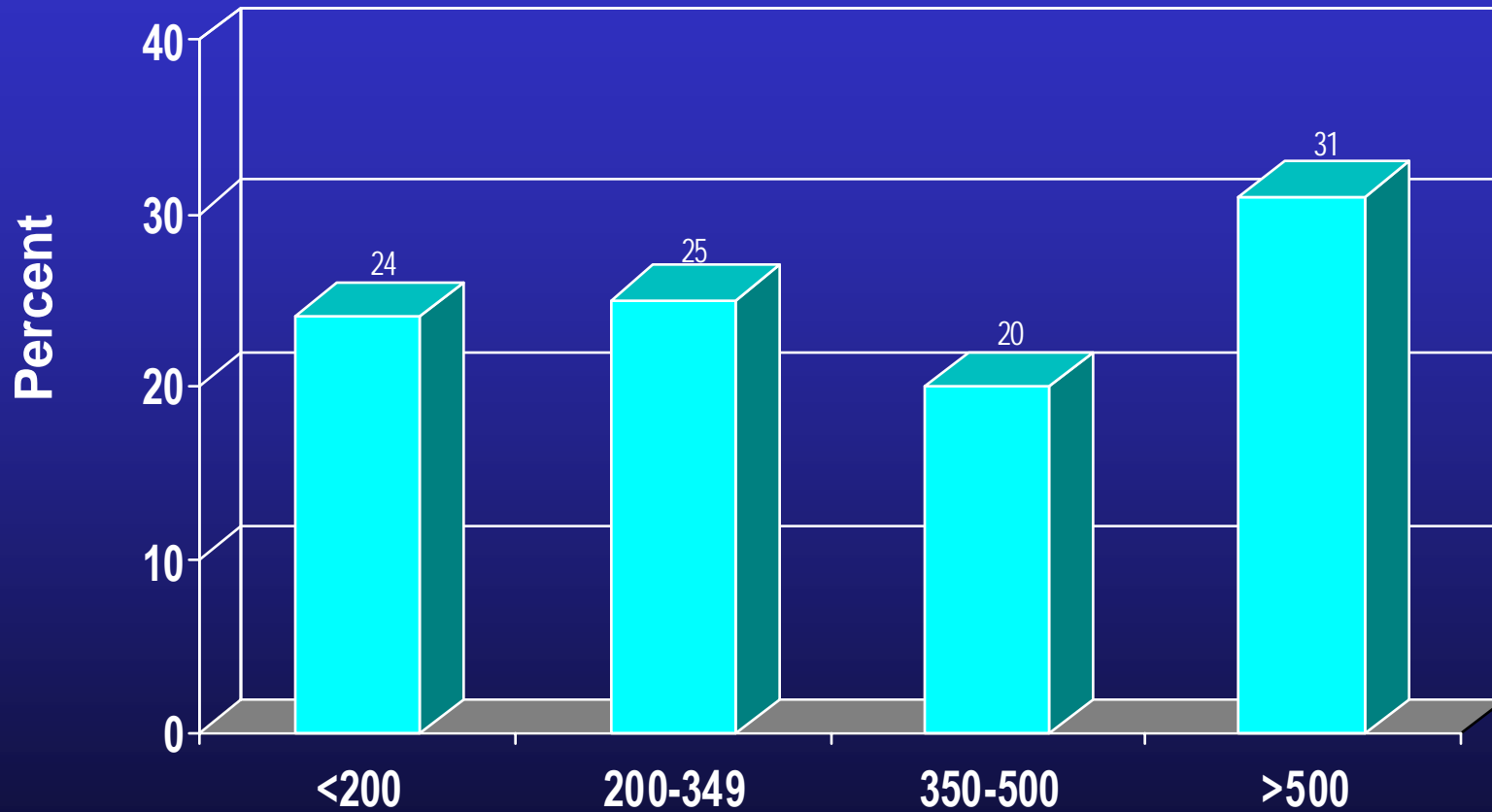
HIV Viral Load

* Undetectable

Analyses

1. Descriptive: Mental health status in sample
2. Participant characteristics regression analyses
   - DVs: Each mental health scale
   - What characteristics are significantly associated with mental health controlling for other participant characteristics?
3. Health and HIV risk factors regression analyses
   - DVs: Health and HIV risk factors
   - Are mental health scales associated with health and HIV risk factors when controlling for participant characteristics?

Results

- CES-D (≥ 10 indicates depressive symptoms)
  - Mean = 13.73, SD = 7.09

- PSS (Range: 10 – 50)
  - Mean = 30.00, SD = 7.38

- MCS: SF-36 (Pop. norm = 50, SD = 10)
  - Mean = 37.82, SD = 12.88

Sociodemographic Regression Analyses

- Standardized β

	DVs		
	CES-D	PSS	MCS
Housing status	0.23 **	0.28 ***	0.28 ***
Recently homeless: poorer mental health			
Physical abuse, ever	0.34 ***	0.30 **	0.30 **
Sexual abuse, ever	0.20 *	0.20 **	
Ever abused: poorer mental health			
Race / Ethnicity (Black v. other)	0.29 ***		
Race other than Black: greater depressive symptoms			
Age (continuous)		0.01 *	0.02 ***
Younger: Poorer mental health, higher stress			

Not significant: Marital status, sexual orientation, employment status, education, time HIV-positive, ever diagnosed with AIDS, ever injected drugs

* p<.05, ** p<.01 , *** p<.001

Health and HIV Risk Factors Regression Analyses

- DVs: Health and HIV risk factor variables

- Controlled for significant sociodemographic variables from previous analysis

- Mental health variables included as predictor variables

Health and HIV Risk Factors Regressions

- Odds ratios for dichotomous variables, standardized β for continuous

DVs	CES-D	PSS	MCS
On HAART (less depression, less stress)	1.19 *	1.22 *	
Adherent (100%), past 2 days	0.59 **	0.68 ***	0.65 **
Not adherent: poorer mental health			
Drug use, past 90 days		0.84 *	0.80 *
Used drugs: higher stress, poorer mntl hlth			
Alcohol frequency	0.72 **	0.74 *	
More freq.: higher depression, stress			
Unprotected sex (any serostatus)			0.77 **
Had unprotected sex: poorer mental health			
SF-36 PCS (continuous)	2.80 ***	2.27 ***	------
Better physical health, better mental health			

Not significant: Total number of sex partners, unprotected anal/vaginal sex (all partners, neg/unknown status), received any medical care, regular source of medical care, CD4, viral load

$* \ p<.05, \ ** \ p<.01 , \ *** \ p<.001$

Conclusions

- Homeless and unstably housed PLWHA report high levels of depressive symptoms, high stress, and poor overall mental health.

- Being recently homeless, having ever been sexually abused, and poorer adherence are associated with poor mental health (all 3 scales).

- More resources should be directed toward addressing the mental health and associated risks of this vulnerable population.

Study Collaborators

- Department of Housing and Urban Development (HUD), Office of HIV/AIDS Housing, HOPWA Program
- Centers for Disease Control and Prevention (CDC)
- RTI
- Columbia U., Johns Hopkins U., U. Pittsburgh, Housing consultant
- Baltimore
    - Department of Housing and Community Development
- Chicago
    - Department of Health
    - AIDS Foundation of Chicago
- Los Angeles
    - Los Angeles Housing Department (LAHD)
    - Housing Authority of the City of Los Angeles (HACLA)