A Comparison of Homeless, Community-wide, and Selected Distressed Samples on the CES-Depression Scale

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Abstract: Center for Epidemiological Studies (CES) Depression Scale results for surveys of homeless, community-wide and selected distressed samples are compared. Nearly four times the percentage of homeless fit the criterion for clinical caseness (a score of 16+) compared to the general population (74 to 19 percent). None of the distressed samples exhibited a higher rate except psychiatric patients diagnosed as acutely depressive. High rates of depression have implications for social policies directed toward homelessness. (*Am J Public Health* 1990;80:1384–1386.)

Introduction

Psychological depression is characterized by depressed mood, negative self-concept, disturbed vegetative functioning, agitation, slower activity levels, distractibility, and indecisiveness.[1] These symptoms of extreme distress are especially detrimental for problem solving and coping among homeless persons with few financial and social resources, and limited control over their environments.

The Center for Epidemiological Studies Depression Scale (CES-D)[1–3] is a survey instrument scored from 0 to 60 (20 symptoms coded 0 to 3 depending on their frequency during the week prior to interview). It has high internal consistency,[1] strong test-retest reliability[4] and, although designed to measure depressive symptomatology in community populations, it is a sensitive predictor of diagnosed depression.[4–7] For example, Boyd, *et al,* found 80 percent correspondence between diagnosed depression and "possible clinical caseness" (a CES-D score of 16+).[8] The scale's specificity is strong; over 91 percent were correctly predicted to have nondepressive diagnosis (using the Diagnostic Interview Schedule) when the 21+ cutoff was used for the CES-D.[4] For our homeless sample, the Cronbach's alpha reliability coefficient for the CES-D was .89; item-to-total correlations ranged from .24 to .74.

Using the CES-D Scale,[1–3] we compared rates of depressive symptoms for a sample of homeless persons to existing data on community-wide and selected distressed samples.

Methods

Data on the homeless were from the Birmingham (Alabama) Homeless Enumeration and Survey Project conducted in early 1987.[9] The Metropolitan Statistical Area (MSA) population was approximately 900,000. The enumeration phase was a single-night census of homeless persons finding 498 in MSA shelters, and 103 on the streets downtown where the homeless were known to be concentrated. An interview survey of 150 adults followed in the three months after the enumeration. A random probability sampling design was used with quotas for the variables sex, race, and geographic site (i.e., shelter versus street) based on enumeration data. Whites were slightly overrepresented in the street sample. Interviews averaged 62 minutes. Of 155 people asked for interviews, only one refused. Four interviews were unusable.

Results

Table 1 presents percentages of possible clinical caseness (CES-D of 16+) for community-wide, selected distressed, and homeless samples.* Across five general population studies in various communities between 1971 and 1985, the results fell consistently below 20 percent. In the distressed samples (discounting acute depressives), percentages ranged from 23.0 (physically or psychologically impaired persons over 55) to 79.0 (rural mental health clinic patients). Generally, the distressed samples comprised of psychiatric patients had higher rates than samples characterized by stressful life circumstances.

Comparing community-wide and distressed samples to our sample revealed a considerable amount of distress among the homeless. Only one respondent of our sample was asymptomatic. Nearly three of four (73.3 percent) scored 16 or above. This percentage was similar to Koegel and Burnam's[14] finding of 71 percent clinical caseness among homeless males of inner-city Los Angeles. In addition, we found 37 percent to score 30 or above, a result similar to Susser's 33 percent for a sample of male first-time shelter users primarily under 40 years of age.[19] Except for Weissman's study of clinic patients diagnosed with acute depression,[6] even groups as distressed as psychiatric inpatients, alcoholics under treatment, and rural mental health clinic patients did not have significantly higher rates.

Comparisons to domiciled samples with stressful life circumstances were informative. For example, low income mothers of young children had significantly lower rates than the Birmingham homeless, as did the unemployed, suggesting that environmental and situational stressors of homelessness exact a greater toll on mental well-being than those faced by the housed poor. Finally, for persons recently widowed or separated—two highly stressful life events—the rates of clinical caseness were lower than that of the homeless sample. An analysis elsewhere of variation in depressive symptomatology within our homeless sample revealed that homelessness does not impact its victims differentially.[20] No matter how the sample was broken down, the mean CES-D score for any subsample was more than twice the mean score of any of the community-wide samples.**

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*Analysis of mean differences in CES-D scores yielded the same results. These data are available upon request from the authors.

**A table summarizing mean differences of sample subgroups is available upon request from the authors.

TABLE 1—Comparison of CES-D Scores: Community-Wide, Selected Distressed, and Homeless Samples

Studies and Year(s)	Research Site/Sample/Subsamples	N	Percent CES-D 16 or above
Community-Wide Samples			
Radloff;[1] Comstock & Helsing[5] (1971–73)	Washington County, Maryland & Kansas City, Missouri	2845	19.5**
Eaton & Kessler;[10] Sayetta & Johnson[11] (1971–75)	National Health & Nutrition Examination Survey	2867	16.4**
Frerichs, et al.[12] (1979)	Multi-Ethnic sample, Los Angeles	1000	19.1**
Ensel;[4] Lin and Ensel[13] (1979–80)	Tri-County Area, Upstate New York	871	16.9**
Koegel and Burnham[14] (1984–85)	Inner-City Los Angeles, Males only	1466	9.4**
Selected Distressed Samples			
Radloff[15] (1971–73)	Washington County, Maryland & Kansas City, Missouri		
	Psychiatric Inpatients	70	70.0
	Death of spouse-past year	33	51.5*
	Marital separation-past year	63	49.2**
	Unemployed	199	30.2**
Weissman, et al.[6] (1977)	Connecticut Mental Health Center, New Haven		
	Acute Depressives	148	99.3**
	Recovered Depressives	87	43.7**
	Drug Addicts	60	51.7**
	Alcoholics	61	62.3
	Schizophrenics	50	36.0**
Hall, et al.[16] (1976–77)	Greensboro, North Carolina; Low-Income Mothers of Young Children	111	48.0**
Husaini, et al.[17] (1977)	9 Rural Counties, Tenn.; Mental Clinics and Veterans Administration Hospital	194	79.0
Orr, et al.[7] (1984)	Baltimore; Mothers of Young Children	149	38.3**
Frerichs, et al.[12] (1979)	Multi-Ethnic sample, Los Angeles		
	Unemployed	98	46.9**
	Low Total Family Income ($0–$8,499)	239	29.3**
Another authors' sample[a] (1986–87)	4 Metropolitan Counties in Alabama: Physically and/or psychologically impaired adults, 55 years and older	154	23.0**
Homeless Samples			
Koegel and Burnam[14] (1984–85)	Inner-City Los Angeles, Males only	379	71.0
Rossi, et al.[18] (1987)	Chicago	319	47.0[b]
Present study (1987)	Birmingham, Alabama	150	73.3

[a]FROM: La Gory M, Fitzpatrick KM: The effects of environmental context on elderly depression. Presented to the American Gerontological Society Meetings, Minneapolis, Minnesota, 1989.
[b]These figures cannot be compared directly with others. Only six CES-D items were used.
*Significantly different from Birmingham homeless, $p < .05$, two-tail test.
**Significantly different from Birmingham homeless, $p < .001$, two-tail test.

Discussion

The homeless suffer from high rates of depressive symptomatology indicative of extreme distress. Only acute depressives, mental health clinic patients, psychiatric inpatients, and alcoholics have rates of clinical caseness on the CES-D comparable to the homeless. Some caveats are in order. First, given the extreme environmental conditions of homelessness (e.g., poor nutrition, climatic exposure), the CES-D may be tapping physiological as well as psychological dimensions.[6] Second, the CES-D may be, for some respondents, gauging reactions to acute situational factors rather than gauging depressive illness or chronic demoralization.[13,21–24] Third, homelessness is usually accompanied by other stressful life events and circumstances; thus, depression may precede homelessness in some cases.[24] Notwithstanding these considerations, depressive symptoms have implications for an individual's ability to resolve the situation, even if external conditions (e.g., available jobs and housing) are favorable. These results suggest that current shelter, rehousing, and treatment programs should institute intervention strategies to avert the potentially cyclical nature of homelessness and depression.

ACKNOWLEDGMENTS

This research was supported by a contract from the Birmingham Health Care for the Homeless Program. The authors are grateful to Jeffrey M. Clair for helpful comments.

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How Valid Are Mammography Self-Reports?

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Abstract: We compared mammography reports in medical records to self-reports obtained during a 1989 telephone interview survey for a sample of 100 women members of a health maintenance organization (HMO) who indicated they had mammograms within the past year and 100 who said they had not had mammograms within the past year. Of the women reporting they had not had mammograms within the past year, none had mammogram reports in the HMO data center. Of the 100 women reporting they had mammograms within the past year, 94 had confirmatory radiology records. (*Am J Public Health* 1990; 80:1386–1388.)

Introduction

Programs of regular mammography screening can produce downward shifts in the stage of breast cancer and reduce mortality by as much as 35 percent.[1–4] The National Cancer Institute (NCI), the American Cancer Society, and other major medical organizations recommend annual screening mammograms for all women ages 50 and older and screening every one to two years for women ages 40–49 years.[5] A potential problem in evaluating the effectiveness of programs aimed at increasing mammography utilization is that most surveys and program evaluations have relied exclusively upon women's self-reports of mammograms. The draft of the US Department of Health and Human Services' Year 2000 Objectives for the Nation stipulates that one of the key assumptions underlying the tracking of changes in mammography utilization is that self-report data provide a valid measure of screening utilization.[6]

If mammography self-reports are not accurate, survey data may overestimate or underestimate actual mammography utilization. Although the accuracy of self-report data in such diverse areas as cervical cancer screening and smoking cessation has been studied,[7–11] the findings cannot be generalized from one content area to another.[7] Based on a MEDLINE search, we found no published studies in which mammography self-reports were validated. Therefore, we undertook the present study.

Methods

This validation study was part of the Avoidable Mortality Study,[4] conducted in conjunction with US Healthcare Check, a free breast screening program offered to all women members of an IPA-model (independent practice association) HMO (health maintenance organization) ages 40 years and over. National guidelines are followed: mammograms are recommended every one to two years for women ages 40 to 49 years and annually for women age 50 and older.[5]

Four telephone survey waves are conducted as part of the Avoidable Mortality Study to evaluate the effectiveness of the program in increasing mammography utilization among women in the HMO compared to geographic controls. US Healthcare Check maintains a centralized mammogram report database. Radiology reports of HMO members are sent to the US Healthcare Check office and to the women's physicians.

In January 1989, a telephone survey was conducted as part of the Avoidable Mortality Study. A sample of 450 HMO women between the ages of 50 and 74 was selected randomly from approximately 45,000 eligible women to whom the US Healthcare Check program is targeted. Interviews were completed with 84 percent; fewer than 10 percent of the women refused to be interviewed.

During the 15-minute structured telephone interview conducted by professional interviewers, women who said they had mammograms were asked when the procedure was most recently done. Mammography utilization questions were those used in the National Health Interview Survey (NHIS) 1987 Cancer Control Supplement and by members of the NCI's Breast Screening Consortium.[4] Overall, 63 percent of the HMO respondents said they had a mammogram in the past year. Mammography rates similar to those in our study and higher than the NHIS[12] also were found in surveys

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