

## ORIGINAL PAPER

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**Lifetime prevalence of mental disorders among homeless people in a southeast city in Brazil**

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**Abstract** Several studies have shown a high prevalence of mental disorders among homeless people. Data from developing countries, like Brazil, are conspicuously lacking, making it difficult to plan interventions targeted to this group's mental health. The sample was selected from street dwellers in Juiz de Fora, a city with 424 479 inhabitants in the Southeast of Brazil. People of 18 years of age or more who had been living outdoors for at least 12 months were eligible for the study. The psychopathology was assessed by using SCAN (Schedule for Clinical Assessment in Neuropsychiatry). After 3 months, it was possible to assess 83 persons. All but one had at least one psychiatric diagnosis according to ICD-10. The most frequent diagnoses were alcohol abuse/dependence (82%), mood disorders (32.5%), drug abuse/dependence (31.3%), and schizophreniform psychosis (9.6%), with a high rate of comorbidity (78.3%). The occurrence of mental disorders was present in almost the entire sample. The authors link this to sampling framing and weakness of the homeless care network system, due to economic constrain and social inequality within the country.

**Key words** Homeless mentally ill · Psychiatric epidemiology

**Introduction**

Nowadays every large city has its homeless population, but in developing countries such as Brazil, the situation is even more serious, as 40 million people, around one-third of the total population, live in misery (IBGE 1997 a). The

situation is getting worse due to the globalization of the economy in recent years, the increased lack of jobs, and the high migration rate of people from poor rural areas to richer urban regions. The lack of specific public health and social policies in our country does not even allow this population's suffering to be alleviated.

Previous studies carried out in Brazil shed light on the interplay between miserable living conditions and mental health. Martins (1979) studied the influence of poverty as a subculture condition that determines the presentation of symptoms and complaints of people seeking treatment in psychiatric services. Santana (1982), studying the low income population of Salvador, Bahia, found a point prevalence of mental disorder of 20%, with a higher rate among women, the elderly, lower literacy and lower social classes. In a review of Latin-American psychiatric epidemiological studies, Almeida-Filho (1987) emphasized Brody's (1973) finding of a predominance of illiterate, migrant, unemployed, poor, mulatto males in psychiatric admissions in Rio de Janeiro. Other authors, quoted by Almeida-Filho (1987) highlighted the positive association of poverty and mental disorders in Latin-America. However, there are no specific studies regarding mental disorders in the homeless.

Koegel et al. (1988), comparing a homeless sample from the inner city of Los Angeles with a LA household sample of the ECA study, found that the homeless have higher prevalence rates of mental disorders, with emphasis on the relative risk of schizophrenia, 27.4 times higher in the homeless. Alcohol and drug abuse/dependence had lifetime prevalences of 69% and 31%, respectively. North and Smith (1993), studying a sample of 900 homeless in St. Louis, found lifetime prevalence of 37% for alcohol abuse/dependence, 17% for unipolar major depression, 15.5% for drug abuse/dependence, 7% for GAD, 5% for schizophrenias, 4% for panic disorder, 2.2% for bipolar disorder. Antisocial personality disorder appeared in 16% of the sample.

The OPCS Survey of Psychiatric Morbidity in Great Britain provides prevalence rates among homeless people (Gill et al. 1996). Considering the two groups that closely

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resemble the profile of the Brazilian homeless population, the most prevalent disorders were alcohol dependence (50%) and drug dependence (46% and 37%). Nearly 60% of the sample had scores at or above the threshold of psychiatric case status according to GHQ12 (in the week prior to the interview).

Castro (1995) mentions high rates of mental disorders among homeless in France, mainly psychosis. In a survey on the prevalence of psychotic symptoms and substance abuse among Barcelona's homeless people, Lucas and Batista (1995) found 50% of the sample with alcohol abuse/dependence and 30% with other drug abuse/dependence. Psychotic symptoms were identified in 28% of total sample. Those interviewed outdoors yielded rates slightly higher than those evaluated in shelters.

Fichter et al. (1996), conducting a similar survey in Munich found a somewhat higher rate of alcohol abuse/dependence (74%). Their sample included only long-term homeless (average of 9 years), middle-age males, with 80% of interviews made outdoors. Nearly 30% of the sample had had previous psychiatric admissions.

Acorn (1993) studying night-shelter users in Vancouver, Canada, found a rate of 70% of habitual alcohol use, 44% of other psychoactive drug use, and 20% of other mental disorders. In Melbourne, Australia, Herrman (1990) using a structured interview (SCID-DSMIII-R) found a rate of 70% of lifetime mental disorder in a sample of 382 homeless people.

The homeless population is, in fact, prone to psychopathology due to a multitude of factors. In general these people are seen as outsiders, misfits, degenerates, vagabonds; a point of view in agreement with the popular view of the mentally ill. This is enough reason for this research.

## Methods

The homeless population of the city of Juiz de Fora, a city with 424 479 inhabitants in the Southeast of Brazil (IBGE 1997b) was surveyed. Outdoors settings, religious and public institutions and hospitals devoted to the homeless were regularly and systematically visited. From February 24<sup>th</sup> to March 10<sup>th</sup>, 1997, 111 individuals were identified as eligible according to the criteria designed for the study. A homeless person was defined as one that spends 24 hours a day in the streets, for consecutive days, where they satisfy their basic needs. The definition allowed for those who availed themselves of overnight shelters, drop-in centers, and other facilities aimed at them. Those of 18 years of age or more, living on the streets for at least 12 months, were selected to enter the study.

Face-to-face interviews were done in the following three months, in sections that ranged from 1 to 2 hours. Twenty-eight persons from the original sample could not be contacted. A total of 83 persons were assessed (acceptance rate: 74.7% of the total initial sample). All the sections of the SCAN version 1.0 (WHO 1992 a) were used to assess psychopathology. The SCAN/CATEGO program permits, besides diagnoses according to ICD10, quantification of psychopathology through total and partial scores. The partial scores reflect subcategories of clinically related symptoms. Demographic and biographic information were gathered through a special form designed for the study. All the instruments were applied by the head researcher (U.H.), a senior psychiatrist who was trained for the use of the Portuguese version of SCAN 1.0 at the Brazilian SCAN training centre.

The research protocol was approved by Council Authorities and Ethic Committee of Universidade Federal de Juiz de Fora. Participation in the survey was voluntary and all persons gave their informed consent prior to their inclusion. Special care was taken to keep privacy. Fifty-seven interviews took place in institutions (69%) and 26 on the streets (31%). There was only one formal refusal to participate.

EPI INFO package, version 6 (Dean et al. 1994) was used to enter and analyze the data. The Catego program generated lifetime diagnosis according to ICD10 (WHO 1992b), using item level information of SCAN. Between group averages were compared by means of parametric tests (T test and analysis of variance) whenever their criteria were met (normality, homocedasticity). Otherwise, Kruskal-Wallis tests were used. The Chi-square test was used for categorical data analysis. Statistical significance was set at 95%. The data were not weighted, as we had no information about the characteristics of the homeless population in Juiz de Fora.

None of the disorders listed in the prevalence table are mutually exclusive.

## Results

The sample demographic characteristics are shown in Table 1. It is composed mainly of males (85.5%) and non-whites (31.3% of mulattos and 36.2% of blacks). 78.3% of the sample were less than 48 years of age (mean age of 39.6 years,  $sd = 12.7$ ), and came from small cities or rural areas of Minas Gerais State (64%). 17% were illiterates and 75% had less than 8 years of education (mean years of education = 5.3;  $sd = 3.1$ ). 77% had no partner and nearly 85% were committed to a religion.

**Table 1** Demographic data of Juiz de Fora homeless population, 1997

Variable		N	%
Sex	Male	71	85.5
	Female	12	14.5
Race	White	27	32.5
	Mulatto	26	31.3
	Black	30	36.2
Age ranges	18 to 27	15	18.1
	28 to 37	22	26.5
	38 to 47	28	33.7
	48 to 57	9	10.8
	58 to 67	7	8.4
	68 and +	2	2.4
City of birth	Juiz de Fora	29	34.9
	Other cities	53	63.9
	No answer	1	1.2
Literacy	Illiterate/Semi-illiterate	14	16.9
	1st grade	62	74.7
	2nd grade	4	4.8
	Further education	2	2.4
	No answer	1	1.2
Marital status	Single	30	36.1
	With a partner	17	20.4
	Ex-married	34	41.0
	No answer	2	2.4
Religion	Catholic	48	57.8
	Evangelical	10	12.0
	Spiritualist	1	1.2
	Non-defined	11	13.3
	No religion	3	3.6
	No answer	10	12.0

Regarding marital status, 20% of the sample had a partner at the time of the survey. The majority of the women had a partner, only 2 did not. 36% had never been married and 41% had had a family at some time in their lives. Forty-three respondents (53.1%) reported having children still living. Most of them had 1 or 2, but seven subjects had 5 or more. Women reported 2.1 more children on average than men ( $p = 0.001$ ).

Regarding employment, no respondent was currently doing any regular job. This does not mean that they were inactive; 72.3% participated in informal activities, such as refuse collection and menial tasks. For those with previous participation in the formal market force (20.4%), 9 were retired, 6 were unemployed, and 2 were drawing a state sick benefit. Five respondents reported prostitution as an income generation activity (4 women, 1 man). Money coming from almsgiving and donations, considered as passive income, was present in 53% of the sample. These participants were more likely to have drug addiction (OR = 2.03; 95% CI = 1.02–4.02;  $p = 0.03$ ).

The age at which the people selected in this study had become homeless was very varied. 10% of the sample were on the streets before the age of 10. Around 20% entered the streets in their third decade of life. The mean age of onset of street life was 34.1 years ( $sd = 13.5$ ). The mean age for entering the streets was higher for women (mean = 41.2;  $sd = 17.7$ ;  $t$  test = 1.9,  $p = 0.05$ ) and for whites (mean = 39.8;  $sd = 13.8$ ;  $F = 4.1$ ,  $p = 0.01$ ).

Regarding the length of homelessness, the median was 3 years, with a range of 1 (entrance criteria) to 27 years. The correlation coefficient between age and length of homelessness was not statistically significant ( $r = 0.06$ ; 95% CI =  $-0.21$ – $0.22$ ). As expected, those who had more time of homelessness were more prone to see the situation as permanent, as shown by the correlation between seeing the situation as permanent and duration of homelessness ( $p = 0.02$ ). The median of length of homelessness in the group that saw the situation as permanent was 9.5 years, much higher than the length of homelessness for those who saw the situation as temporary (2.0 years). People who had more family contact were more likely to expect to leave the streets ( $p = 0.03$ ).

Regarding reasons claimed for homelessness, family problems (death of a close relative, family quarrels, failed love affair) or socio-economic disruptions (unemployment, insufficient income to afford proper housing) were quoted most of the time. Nine respondents expressed preference for living on the streets. Parental alcohol abuse/dependence was associated to physical abuse (OR = 3.5; 95% CI = 1.4–8.6;  $p = 0.001$ ). Nevertheless, severe mental illness in family and physical violence were not associated (OR = 0.9; 95% CI 0.7–1.1;  $p = 0.3$ ).

Nearly 24% (20 respondents) had spend their childhood in institutions, foster families, or on the streets. This group was more likely to have personality disorders (OR = 4.2; 95% CI = 1.03–17.2;  $p = 0.05$ ) and substance abuse other than alcohol (OR = 2; 95% CI = 1.1–3.6;  $p = 0.03$ ). No diagnosis of schizophrenia or mental retardation was made in this group.

**Table 2** Lifetime prevalence rates for mental disorders according to ICD-10 in homeless adults of Juiz de Fora ( $n = 83$ ), 1997

Diagnoses	No. of diagnoses	Affected persons	%
Cognitive impairment	8	8	9.6
Alcohol-related disorders:		68	81.9
Harmful use	2		
Dependence	66		
Psychotic disorders	12		
Dementia	16		
Drug-related disorders:		26	31.3
Dependence	26		
Psychotic disorders	7		
Dementia	1		
Schizophrenia and related disorders	8	8	9.6
Mood disorders:		27	32.5
Bipolar disorder	2		
Major depression	14		
Disthymia	9		
Recurrent transient depression	4		
Neurotic disorders:		7	8.4
Phobias	2		
Generalized anxiety disorder	3		
Dissociative disorder	3		
Personality and behavior disorders	7	7	8.4
Mental retardation	5	5	6.0
Any diagnosis		82	98.8

Note: The data are overlapping

Only one respondent did not receive any psychiatric diagnosis (Table 2). Alcohol and drug abuse/dependence were predominant, with 70 of the respondents (84.3%) with at least one of these diagnoses (just 2 subjects with drug problem did not have alcohol abuse/dependence). Sixty-eight (82%) of the respondents had one or more diagnoses related to alcohol. Several of these showed severe psychiatric complications; 12 with psychotic disorders (17.6%) and 16 with dementia (23.5%). Those who had never been married (chi-square = 13.5; 3 df;  $p = 0.003$ ) and whites (chi-square = 6.32; 2 df;  $p = 0.04$ ) were less likely to have alcohol related problems. These people had less education (chi-square = 13.94; 7 df;  $p = 0.05$ ) and were less likely to seek outpatient mental health services than those without alcohol related problems (chi-square = 11.78; 2 df;  $p = 0.002$ ), but took advantage of community services (shelters, charity soup) more frequently (chi-square = 7.67; 2 df;  $p = 0.02$ ).

Twenty-six respondents (31.3%) had psychoactive substance abuse/dependence. The most common drug was marijuana, followed by cocaine. The latter was mostly inhaled with instances of venous injection. Crack use was also reported. Other drugs identified, according to their frequency of use, were as follows: volatile solvents, sedatives, hallucinogens, stimulants, opioids, and others (e.g., biperiden). Once the drugs were consumed according to availability and opportunity, multiple drug use was frequent. Among drug addicts statistically significant differences regarding sex and age were found: predominance among males (OR = 1.2; 95% CI: 1.03–1.4;  $p = 0.05$ ) and people in the 18–27 years age group (chi-square = 25.25;

5 df;  $p = 0.0001$ ). This group became homeless at a younger age than the respondents without drug problems (Kruskal-Wallis  $H = 20.8$ ; 1 df;  $p < 0.0005$ ).

Lifetime depressive disorders were found in 25 respondents (30.1%). Neurotic disorders were diagnosed in 7 subjects, being strongly related to depression disorders (OR = 5.8; 95% CI: 1.2–27.9;  $p = 0.02$ ). Two respondents had had maniac episodes, one of them was currently with maniac symptoms, which masked the assessment of depressive symptoms.

Organic disorders not etiologic related to abuse/dependence of substances were found in 8 respondents (9.6%). The following organic disorders were found: multi-infarct dementia, HIV dementia, organic personality disorder, organic dissociative disorder, organic delusional disorder, and one person had mild cognitive deficit. These subjects all had a concomitant diagnosis related to alcohol abuse/dependence, entering street life 9 years older than the rest of the sample (Kruskal-Wallis  $H = 3.706$ ; df = 1;  $p = 0.05$ ), but tending to stay a shorter period on the streets. Considering all persons with moderate or severe cognitive deficit (those with and without alcohol and other drugs related problems), we found they represented 27.7% of the total sample. Mental retardation was found in 5 respondents (6%).

Nearly 10% of the sample had schizophrenia and related psychosis (8 subjects). The data point to a possible homeless subgroup: longer time of homelessness (chi-square = 10.26; 4 df;  $p = 0.03$ ), no hope of status change (chi-square = 11.41; 3 df;  $p = 0.009$ ), less contact with relatives (chi-square = 14.81; 4 df;  $p = 0.005$ ), predominantly single (chi-square = 13.21; 5 df;  $p = 0.02$ ), lower literacy (chi square = 15.5; 4 df;  $p = 0.003$ ), more interested in religious issues (chi-square = 15.01; 3 df;  $p = 0.001$ ), lower attendance at community services (chi-square = 20.9; 2 df;  $p < 0.002$ ), higher attendance at mental health outpatient facilities (chi-square = 11.7; 2 df;  $p = 0.002$ ) but less psychiatric admission rates (chi-square = 11.2; 2 df;  $p = 0.003$ ). None in this group had alcohol-related diagnoses.

Although non-specific diagnostic tools had been used, 7 respondents received diagnoses of personality or behavior disorders. The majority of them (6) had alcohol abuse/dependence, 4 of them also had drug problems.

Smoking dependence was recorded in 59 respondents (71%). It was however, not included in the statistical analysis, on grounds of the severity of the findings and the complexity of other diagnoses found.

Comorbidity was a common finding (78.3%). This was mostly the combination of alcohol dependence with other alcohol-related diagnoses, psychoactive substance use, and mood disorders (Table 3). The association of other substance use with alcohol was high: out of 26 subjects identified as drug addicts, 24 also received alcohol use related diagnoses (3 of them were not using other drugs albeit in regular alcohol intake; only two were found to be totally abstinent, inclusive for alcohol).

The average SCAN total score for the sample was 89.8. Among the partial scores obtained for each symp-

**Table 3** Chief comorbidities found in homeless adults of Juiz de Fora, 1997

Reference diagnoses	Comorbidities	N
Alcohol dependence	Alcohol-related psychotic disorder	12
	Alcohol-related dementia	16
	Other substance dependence	24
	Mood disorder:	
	Major depression	12
	Disthymia	7
	Recurrent transient depression	4
	Organic disorder	8
	Neurotic disorder:	
	Phobias	2
	Generalized anxiety disorder	2
	Dissociative disorder	2
	Personality and behavior disorder	6
	Mental retardation	2
Other substance dependence	Substance-related psychotic disorder	7
	Substance-related dementia	1
	Mood disorder:	
	Major depression	6
	Recurrent transient depression	1
	Organic disorder	3
	Schizophrenia	1
	Neurotic disorder	1
Mood disorder	Other mood disorder (*)	2
	Neurotic disorder:	
	Phobias	2
	Generalized anxiety disorder	3
	Dissociative disorder	1
	Organic disorder	3
Schizophrenia	Personality and behavior disorder	1
	Mental retardation	1

(\*) Major depression + Disthymia

tom group, substance misuse was the highest one, averaging 45.5 points. Cognitive impairment is the second subgroup with more ratings (mean score of 11.3). This was testimony to the advanced degree of mental deterioration in the sample, mostly linked to long-lasting and excessive substance use.

The lifetime diagnoses were mostly present at the time (last 28 days before the interview). Actually the population in study was chronically and severely ill, following at least 12 months of exposure to the dire homeless situation. Therefore, the psychiatric diagnoses herein are meant to refer to a lifetime condition.

## Discussion

Our sampling strategy was to identify all persons that met the inclusion criteria of 18 years of age or more, at least one year living on the streets. The 111 subjects contacted in the first selection procedure were almost all the homeless people found in a period of 15 days of searching. We could reach, in a period of 3 months, 75% of the subjects contacted in the first sample procedure, which considering the nomadic characteristic of these people, is a relatively small attrition, for a second assessment. Although we cannot say that the 83 individuals interviewed are representa-



tive of other homeless populations, we can say that the survey reflects the current status of these people in the city of Juiz de Fora, taking into account the exclusion of children and adolescents. However, a sample of 83 persons may not be large enough to provide stable estimates. Regarding the size of the sample, it was possible to use such a robust tool as SCAN in the totality of subjects to assess current and lifetime psychopathology.

Similar to other studies in the homeless population (Koegel et al. 1988; Gill et al. 1996), there is a predominance of males, mulattos and blacks (67.5%) in our sample, showing that whites and women are less vulnerable to become homeless. This may be indicated by the higher age of onset in street life for women and whites compared to men and non-whites.

Most of the sample came from small cities or rural areas around Juiz de Fora, the biggest city in the Southeast of Minas Gerais State. This social phenomenon is happening all around the country as a result of an increase in poverty and the deterioration of life conditions in rural areas. We only selected persons over 18, excluding a significant proportion of children and adolescents that are becoming street children in developing countries. So, our sample is formed mainly by people around 30–40 years old, that entered life on the streets recently (median length of homeless of 3 years), which indicates that there is often change in this population. The exposure to homelessness is not so long which suggests that many either succeed in following another walk of life or succumb early. In fact, two subjects identified in the first stage of sampling died before the interview.

The lack of formal education (only 7% has more than 8 years of formal education) and the fact that only a few reported a previous formal job may point to an impairment to the respondents' skills and social insertion. Early alcohol and other drug misuse must be an important factor associated to such disability.

Among the conditions favoring homelessness, family disruption was quoted the most. 20% of the respondents grew up without a family reference, not knowing one or both parents. Alcohol related problems and family violence were the most important factors alleged to lead to familial rupture. Our data confirm previous findings that the homeless population mostly consists of men living alone (Fichter et al. 1996; Gill et al. 1996; North and Smith 1993).

The findings confirm the high prevalence of mental disorders in the homeless population, with rates higher than those reported in studies of the homeless in developed countries. Our data match international literature to a certain extent, as problems related to alcohol and drugs are the most prevalent disorders. Alcohol use disorder rates among the homeless are always high: 74% in Munich (Fichter et al. 1996); 69.2% in Los Angeles (Koegel et al. 1988); 69% in Vancouver (Acorn 1993); 50% in Barcelona (Lucas and Batista 1995) and also 50% in a survey in the whole of Great Britain (Gill et al. 1996). For other substance abuse/dependence we found convergence to be around 30–45% of prevalence rates found in literature. Considering all substance abuse/dependence, our sample's prevalence reaches 84.3%, a rate only surpassed

by the 92% found by Edwards et al. (1966) surveying homeless persons sleeping rough in London.

The prevalence of psychoses is always high among the homeless. Our rate surpasses that of North and Smith (1993), who found 4.7% and that of Reed et al. (1992) who found 8.0%. The other studies have always found higher rates than ours. Everything points to the existence of a homeless population segment composed of "strict sense" mentally ill persons, with schizophrenics making up a subgroup which deserves special approaches by health programs. Schizophrenics also unveil drawbacks in the health system once they present lower psychiatric admission rates than alcoholics and those with other diagnoses.

Referring to cognitive deficits, our rates are also higher than those in the general population of Brazil. Although cognitive impairment in SCAN is assessed mainly through the Folstein-McHugh Mini-Mental State Examination, the presence of related symptoms such as other than personality deterioration is also taken into account, and a low score may reflect intoxication, mental retardation, or severe educational deficits.

There are two recent population-based studies about mental health in Brazil. The Brazilian Multicentric Study of Psychiatric Morbidity ((Almeida-Filho et al. 1997), based on a low stability screening questionnaire, pointed to global prevalence rates of mental disorders from 31.0% to 50.5%. Anxieties and phobias were the main findings yielded (prevalences up to 18%). Female non-psychotic depression (up to 10%) and male alcoholism (around 8.0%) came second. With the exclusion of those related to mood disorders and substance abuse, psychoses reached a maximum prevalence of 2.4%. Learning disability rate was around 3.0%. The authors stated that "the global prevalences found are probably overestimates". A recent catchment area study (Andrade et al., in preparation) based on CIDI 1.1 (Robins et al. 1988) found that around 46% of the total sample have at least one lifetime diagnosis of mental disorder according to ICD10. The most lifetime prevalent disorders, after excluding tobacco dependence, was major depression (16.6%), followed by anxiety disorders (12.5%). Alcohol abuse/dependence was found in 5.5% of the sample; nonorganic psychosis in 1.5% of the sample. Current cognitive deficit was present in 1.2% of the subjects.

Our rates are obviously higher compared to the population-based rates, except for anxiety-related disorders. The evaluation of minor symptoms may have been masked by the more severe symptoms present in our sample. In several instances we were forced to resource to nonroutine options of SCAN, which resulted in lower accuracy in the assessment of data which might have pointed to a secondary diagnosis. For mood disorders, our findings are closer to those in the general population, not differing greatly from those in other surveys of the homeless. Their detection arouses expectations of a possible benefit from treatment.

We opted for not using an initial screening tool anticipating a not-so-large sample. So the main diagnostic tool was deemed feasible to be directly used. The complexity of each individual's situation made it difficult to locate re-

spondents more than once, thus giving enough reason for such decision. The choice of SCAN as the assessment tool was based on its comprehensiveness and acknowledged accuracy. In spite of being extensive we relied on its versatility. Actually, being a semi-structured interview, it allows for and even demands clinical judgement at all times, making its use flexible and adequate to specific situations. Nonroutine options and cut-off points were invaluable in this particular sample. Thus, clinical judgement was paramount for evaluation of adequacy of data, which is acceptable and does not jeopardize the validity of diagnosis.

As for the symptom group scores we consider that they are a true reflection of the group's profile. They point to extensive involvement with alcohol and other substance abuse, leading to considerable cognitive impairment and expressive presence of psychotic and depressive symptoms. All this is in accordance with the expected findings in such miserably-living and marginalized populations. The poor standard of health care in our country, making living conditions even worse, must also be taken into account.

The analysis of the results must consider the peculiarities of the homeless subculture. The very high prevalence of substance abuse testifies to the importance of this element to group behavior that plays a role as an instrument for insertion and acceptance, a stimulus for edge attitudes and relief from dire conditions. The limited value of psychiatric diagnosis, not always indicating the need for treatment (at least along the lines of conventional treatment), must be borne in mind. We value the recommendation of Hamid et al. (1993) that: "Diagnosis is not in any case necessarily a reliable measure of disability or need for psychiatric services, especially in community surveys".

We think that the homeless are in priority need of care and social support (Lovisi et al. 1996). Mental health care is certainly a necessity, as long as this social segment's features, civil rights and freedom are respected. We echo North and Smith (1993) when they suggest that: "Mental health professionals serving mentally ill homeless population would best serve them by focusing on creative and innovative ways to improve the availability and attractiveness of ambulatory care services". Others, out of creativity, have already demonstrated the feasibility of therapeutic interventions on the streets themselves (Broide 1993).

## References

- Acorn S (1993) Mental and physical health of homeless persons who use emergency shelters in Vancouver. *Hosp Commun Psychiatry* 44:854-857
- Almeida-Filho N (1987) Epidemiologia Social das Desordens Mentais: Revisão da Literatura Latino-Americana. In: Bezerra-Júnior B (ed) *Cidadania e loucura: políticas de saúde mental no Brasil*. Vozes, Petrópolis, pp. 103-131
- Almeida-Filho N, Mari JJ, Coutinho E, França JF, Fernandes J, Andreoli SB, Busnello EA (1997) Brazilian multicentric study of psychiatric morbidity. Methodological features and prevalence estimates. *Br J Psychiatry* 171:524-529
- Andrade L, Gentil-Filho V, Laurenti R (1996) Prevalence of mental disorders in a catchment area in São Paulo, Brazil. (In preparation)
- Broide J (1993) A rua enquanto instituição das populações marginalizadas: uma abordagem psicanalítica através de grupos operativos. Pontifícia Universidade Católica, Dep. de Psicologia (Dissertação de Mestrado), Campinas
- Castro B (1995) Psychoses socio-dependantes. *Ann Med Psychol* 153:426-432
- Dean AG, Dean JA, Coulombier D, Brendel KA, Smith DC, Burton AH, Dicker RC, Sullivan K, Fagan RF, Arner TG (1994) Epi Info, Version 6: a word processing database and statistics program for epidemiology on microcomputers. US Dep. of Health and Human Services, Centers of Disease Control and Prevention, Atlanta
- Edwards G, Hawker A, Williamson V, Hensman C (1966) London's skid row. *Lancet* i: 249-252
- Fichter MM, Koniarczyk M, Greifenhagen A, Koegel P, Quadflieg N, Wittchen HU, Wölfl J (1996) Mental illness in a representative sample of homeless men in Munich, Germany. *Eur Arch Psychiatry Clin Neurosci* 246:185-196
- Gill B, Meltzer H, Hinds K, Petticrew M (1996) Psychiatric Morbidity among Homeless People. OPCS surveys of psychiatric morbidity in Great Britain, Report 7. HMSO, London
- Hamid WA, Wikes T, Stansfeld S (1993) The homeless mentally ill: myths and realities. *Int J Soc Psychiatry* 38:237-254
- Herrman H (1990) A survey of homeless mentally ill people in Melbourne, Australia. *Hosp Commun Psychiatry* 41:1291-1292
- IBGE - Instituto Brasileiro de Geografia e Estatística (1997a) Anuário Estatístico do Brasil, 1996. IBGE, Rio de Janeiro
- IBGE - Instituto Brasileiro de Geografia e Estatística (1997b) Contagem da População, 1996. IBGE, Rio de Janeiro
- Koegel P, Burman A, Farr RK (1988) The prevalence of specific psychiatric disorders among homeless individuals in the inner city of Los Angeles. *Arch Gen Psychiatry* 45:1085-1092
- Lovisi GM, Milani I, Caetano G, Abelha L, Morgado AF (1996) Suporte social e distúrbios psiquiátricos: em que base se alicerça a associação? *Inform Psiqui* 15:65-68
- Lucas R, Batista G (1995) Prevalencia de sintomatología psicótica y hábitos tóxicos en una muestra de homeless. *Rev Psiquiatria Fac Med Barcelona* 22:18-24
- Martins C (1979) Poverty, work and psychosomatic symptoms. Jerusalem: The 5th World Congress of the International College of Psychosomatic Medicine (Abstracts), 202
- North CS, Smith EM (1993) A systematic study of mental health services utilization by homeless men and women. *Soc Psychiatry Psychiatr Epidemiol* 28:77-83
- Reed A, Ramsden S, Marshall JE, Ball J, O'Brien J, Flynn A, Elton N, El-Kabir D, Joseph P (1992) Psychiatric morbidity and substance abuse among residents of a cold weather shelter. *Br Med J* 304:1028-1029
- Robins LN, Win J, Wittchen H-U, Helzer JE (1988) The Composite International Diagnostic Interview: an epidemiologic instrument suitable for use in conjunction with different diagnostic systems and in different cultures. *Arch Gen Psychiatry* 45:1069-1077
- Santana VS (1982) Estudo Epidemiológico das Doenças Mentais em um Bairro de Salvador (Série Estudos em Saúde, n. 3). Sec. de Saúde do Estado da Bahia, Salvador
- UFJF - Universidade Federal de Juiz de Fora (1997a) Boletim Meteorológico. UFJF, Dep. de Geografia e Geociências, Juiz de Fora
- UFJF - Universidade Federal de Juiz de Fora (1997b) Anuário Estatístico de Juiz de Fora, 1996. UFJF, Centro de Pesquisas Sociais, Juiz de Fora
- Wing JK, Babor T, Brugha T, Burke J, Cooper JE, Giel R, Jablenski A, Regier D, Sartorius N (1990) SCAN - Schedules for Clinical Assessment in Neuropsychiatry. *Arch Gen Psychiatry* 47:589-593
- WHO - World Health Organization (1992a) SCAN - Schedules for Clinical Assessment in Neuropsychiatry. WHO, Division of Mental Health, Geneva
- WHO - World Health Organization (1992b) The ICD-10 Classification of Mental and Behavioural Disorders: Clinical descriptions and diagnostic guidelines. WHO, Geneva