

Food Insecurity Among Psychiatric Patients and Welfare Clients in Israel

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ABSTRACT

Background: Twenty-two percent of households in Israel experience food insecurity, and it is especially widespread in socio-economically distressed strata. Although their low socio-economic status renders psychiatric patients at risk for food insecurity, this issue has thus far been ignored in both practice and research.

Objective: To explore food insecurity among psychiatric patients in comparison with welfare-services clients in order to raise awareness of food insecurity in this population.

Method: 114 respondents were recruited from among patients admitted to the emergency room and hospitalized in a mental health center in Beer Sheva; 555 respondents were recruited from among low-income clients of welfare service agencies in the Beer Sheva area. All respondents were surveyed with a self-report questionnaire and with the Food Security Core Survey Module (FSCSM).

Results: Forty percent of psychiatric patients and 59% of welfare-services clients reported food insecurity. The use of formal and informal support systems was lower among food-insecure psychiatric patients than among food-insecure welfare clients.

Conclusions: Psychiatric patients appear to be a risk population for food insecurity; therefore planned interventions and specific food programs are called for.

Canada, and Israel has been linked to the decline of the welfare state and shifting economic and social policies (1, 2). The recent global economic crisis led to an unprecedented increase in the rate of food insecurity in the U.S. (3). In 2008, 14.9% of US households fell into the food-insecure category – the highest recorded rate since 1995, when the first national food security survey was conducted (4).

A national study in Israel shows that 22% of Israeli households experience food insecurity (5). The increase in rates of food insecurity and concomitant findings on its negative impact on psychiatric patients make it necessary to identify populations at risk and to develop community programs and interventions to promote their food security.

A recent Israeli governmental report (5) indicated that the spread of the food insecurity problem was related to major cutbacks in social security benefits and in government investment in social budgets, the erosion of employment income in the wake of changes in the labor market, and the significant rise in food prices. For example, between 2000 and 2006, government expenditures for health, welfare and educational services were reduced by 11% (6). In general, the government's response to the problem has been to rely on community and voluntary activity, a policy that has led to more soup kitchens and food distribution centers (7). Food security means that all people at all times have access to enough food for an active and healthy life (8). It is considered a basic human right under several covenants of international law, which state that nutritionally safe foods need to be accessible in socially acceptable ways. Food-secure individuals and families should not have to resort to emergency food supplies, begging, stealing, and/or scavenging for food (4, 9, 10).

In 1995 a survey using a new instrument to measure food security was undertaken in the U.S. The scale, Food

INTRODUCTION

The development of pockets of food insecurity and hunger in wealthy Western countries such as the U.S., Australia,

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Security Core Survey Module, made it possible to classify households as “food secure,” “food insecure without evidence of hunger,” or “food insecure with evidence of hunger” (9). The Core Module does not measure the nutritional quality or safety of the food consumed. However, studies have found a link between the level of food security and food quality and safety (11).

Unlike malnutrition, which characterizes many underdeveloped countries (12), food insecurity is not life-threatening; it does, however, affect daily functioning as well as the physical, social and psychological well-being of individuals and families. Food insecurity reduces the short- and long-term physical and mental health status of individuals and families and causes hunger, fatigue and illness (13). Research shows that food insecurity is linked to impaired cognitive and physical ability, school and work absenteeism, and poor involvement in social activities. It has been linked to family instability, poor mental and physical health, and behavioral problems such as delinquency, crime and drug abuse (9). At-risk groups suffer higher rates of diet-related problems throughout life, including low-birth-weight babies, childhood and infant anemia, low immunity from infectious diseases, obesity, hypertension, Type 2 Diabetes, heart disease, and stroke (14). It has further been suggested that food insecurity leads to eating disorders and that the poor quality of free food distributed among the homeless and impoverished may contribute to excessive consumption and subsequent obesity (15).

Food insecurity tends to be higher among clients of social welfare agencies, recipients of welfare benefits, the unemployed, new immigrants, alcohol-dependent or drug-addicted individuals, and the homeless (16-21).

While there is a relatively large amount of research on the association between food insecurity and physical health, studies on the relationship between food insecurity and mental health are scarce. Research in the U.S. links food insecurity to a wide range of poor health outcomes, including psychological outcomes (15, 22-25). Elevated levels of depression and psychological distress were identified among food-insufficient households in a nationally representative data set from Canada (25). In a representative population sample in South Africa, a strong association was found between the presence of DSM-IV disorder and food insecurity (26). Research conducted in general clinics at medical centers in five states (N=5306) showed a positive association between food insecurity and maternal depression screen status (27). Smaller-scale studies on psychiatric patients and

persons with mental disorders showed an association between various mental problems (such as depression and psychotic spectrum disorders) and food insecurity (15, 28, 29). An earlier Israeli study conducted among patients who sought help at an emergency psychiatric unit showed that food-insecure patients exhibited a higher level of psychological distress than food-secure patients (30). Although a number of studies have explored the relationship between mental illness and distress and food insecurity (15, 22-30), none have presented rates of food insecurity among psychiatric populations, and the present study is the first to do that.

In the present study we compare the food insecurity of psychiatric patients to that of welfare services clients, two groups that share similarly low socio-economic status (7). We also explore factors associated with food insecurity among the mentally ill respondents, as well as the role of public and community support in promoting their food security.

METHOD

RESPONDENTS

The study included two samples: 114 adult respondents recruited from psychiatric patients who had been admitted to the Beer Sheva Mental Health Center's emergency unit and hospitalized for up to two weeks and treated pharmacologically. All patients admitted to the unit between January 2003 and March 2004 were included in the sample. As part of the admission process to the unit, the patients were asked, by the chief nurse, whether they are willing to participate in the study. All those approached agreed to participate (100% response rate). The high response rate was achieved thanks to: a) exclusion of non-Hebrew speaking patients and welfare clients who comprised 10% of the unit's patients, and b) engagement of all nurses of the unit in the research and their close assistance to respondents with the questionnaire. The respondents were surveyed by means of a self-report questionnaire.

The respondents' diagnoses were obtained from their personal admission files. The diagnoses were based on the regular procedures of the unit: an intake clinical interview with a psychiatrist on duty who formulated an ICD-10 diagnosis (31). Over half of the participants were diagnosed with schizophrenia, schizotypal and delusional disorders, one-third were diagnosed with mood disorders, and the remainder with stress-related and somatoform disorders – syndromes associated with physiological

disturbances, physical factors, substance use and abuse, and disorders of adult personality and behavior.

The second sample comprised 555 low-income clients of 20 welfare service agencies in the Beer Sheva area. All clients who applied to any of these services during the month of December 2002 were included in the sample. The respondents were surveyed by means of a self-report questionnaire. Social work students, trained specifically for this project, administered the questionnaire and were available for inquiries.

INSTRUMENTS

Food insecurity was measured by means of a short version of the Food Security Core Survey Module (FSCSM) (32). This instrument (see Appendix A) is widely used to measure food insecurity and hunger (9, 33). It comprises six questions about having money to buy food, affording nutritious and balanced meals, skipping meals because food could not be afforded, etc. Based on the FSCSM, households or individuals can be classified as “Food Secure,” “Food Insecure without evidence of hunger,” or “Food Insecure with evidence of hunger.” The cut-off point used in this study to determine food insecurity was the one specified by the creators of the instrument (9).

The instrument was translated into Hebrew using a translation-back translation method. Internal and test-retest reliability of the Hebrew version of the 6-item FSCSM was assessed in a previous study (N=20) and found satisfactory (Cronbach alpha coefficient 0.77 and Guttman split-half coefficient 0.97, test-retest validity = 0.96) (7).

In addition, data were collected on age, gender, place of birth, education, marital status, employment status and sources of income from salaries and pensions, public support (social security benefits), and community support from informal networks and charity.

The project was approved by the Human Subjects Research Review Committee of the Beer Sheva Mental Health Center (Helsinki committee). All respondents provided written “informed consent” authorization.

DATA ANALYSIS

Background characteristics and the level of food security in the two samples were compared. In addition, food-secure and food-insecure psychiatric patients were compared in respect of their background characteristics and the utilization of community support; descriptive statistics, chi square and t-test analyses were used. The Levene test of equality of variance was performed in order to ensure that differences between the two groups did not derive from

the two groups’ size difference. Furthermore, since three comparisons were performed on each variable, differences were considered significant only when $p < 0.016$ ($0.05 \setminus 3$).

RESULTS

The results reveal that food insecurity is less widespread among psychiatric patients than among welfare services clients (40% vs. 59%) (Table 1).

As compared to welfare services clients, psychiatric patients showed higher rates of unemployment (84% vs. 59%) and partner’s unemployment (71% and 51%, respectively), but lower rates of married status (26% and 52%), lower support from family and friends (33% vs. 55%) and from charity (16% and 40%). No difference was found between the groups in the rate of their reliance

Table 1. Comparison between psychiatric patients and clients of welfare services on food-security status and selected demographic characteristics

Variables	Values	Psychiatric patients (N=114)	Clients of welfare services (N=555)	P
Food security status	Food secure Food insecure	59.6% (68) 40.4% (46)	40.9% (226) 59.1% (326)	0.000
Age ¹	Years	Mean = 37.29 SD = 12.17	Mean = 41.79 SD = 13.05	0.001
Average number of children (below 18) ²		Mean = 2.26 SD = 1.69	Mean = 3.11 SD = 1.88	0.005
Employment status	Employed Unemployed	15.9% (18) 84.1% (95)	41.4% (223) 58.6% (315)	0.000
Education	Less than 12 years 12 years and more	75.9% (85) 24.1% (27)	81.9% (384) 18.1% (85)	0.191
Marital status	Married Single	26.3% (30) 73.7% (84)	52.2% (286) 47.8% (262)	0.000
Partner's employment	Working Not working	86.7% (26) 13.3% (4)	57.1% (160) 42.9% (120)	0.003
Receiving social security benefits	Yes No	61.6% (69) 38.4% (43)	68.7% (358) 31.3% (163)	0.179
Receiving support from family/friends	Yes No	33.3% (38) 66.7% (76)	54.8% (298) 45.2% (246)	0.000
Receiving charity	Yes No	15.8% (18) 84.2% (96)	39.6% (215) 60.4% (60.4)	0.000

¹ Levene’s test for equality of variances: $F = .016$, $p < .899$ (ns)

² Levene’s test for equality of variances: $F = 3.253$, $p < .072$ (ns)

Table 2. Comparison between food-secure and food-insecure psychiatric patients

Variables	Values	Food secure (N=68)	Food insecure (N=46)	P
Age ¹	Years	Mean=37.11 SD=12.45	Mean=37.57 SD=11.89	0.845
Average no. of children (below 18) ²		Mean=2.29 SD=1.93	Mean=2.22 SD=1.35	0.914
Employment status	Employed Unemployed	22.1% (15) 77.9% (53)	11.1% (5) 88.9 (40)	0.215
Education	Less than 12 years 12 years and more	73.5% (50) 26.5% (18)	79.5% (35) 20.5% (9)	0.617
Marital status	Married Single	27.9% (19) 72.1% (49)	23.9% (11) 76.1% (35)	0.793
Partner's employment	Employed Unemployed	94.7% (18) 5.3% (1)	72.7% (8) 27.3% (3)	0.249
Receiving social security benefits	Yes No	59.7% (40) 40.3% (27)	64.4% (29) 35.6% (16)	0.758
Receiving support from family/friends	Yes No	17.6% (12) 82.4% (56)	56.5% (26) 43.5% (20)	0.000
Receiving charity	Yes No	10.3% (7) 89.7% (61)	23.9% (11) 76.1% (35)	0.090

¹ Levene's test for equality of variances: $F=.351, p<.555$ (ns)

² Levene's test for equality of variances: $F=.158, p<.693$ (ns)

on social security benefits. The analysis showed neither ethnic nor gender differences.

FOOD-SECURE AND FOOD-INSECURE PSYCHIATRIC PATIENTS

The only significant difference between food-secure and food-insecure psychiatric patients was that the latter relied significantly more regularly on family and friends' support (56% as compared to 18%), yet they remained food-insecure (Table 2).

They also seemed to rely more often on charity (24% vs. 10%), but this difference was not statistically significant. Similarly, the apparent tendency to a higher rate of unemployed spouses among the food-insecure patients (27% as compared to 5% among the food secure) showed no statistical significance. Interestingly, no differences were found between food-secure and food-insecure patients in respect to social security benefits and other variables.

FOOD- INSECURE PSYCHIATRIC PATIENTS AND FOOD-INSECURE WELFARE CLIENTS

Some interesting differences emerged when food-insecure psychiatric patients and welfare clients were compared (Table 3).

Table 3. Comparison between food-insecure psychiatric patients and food-insecure welfare services clients: use of public and community support and selected demographic characteristics

Variables	Values	Psychiatric patients (N=46)	Clients of welfare services (N=326)	P
Age ¹	Years	Mean=37.6 SD = 11.9	Mean=41.6 SD = 11.8	0.029
Average no. of children (below 18) ²		Mean=2.2 SD=1.4	Mean=3.2 SD = 2.0	0.040
Employment status	Employed Unemployed	11.1% (5) 88.9% (40)	32.5% (103) 67.5% (214)	0.006
Education	Less than 12 years 12 years and more	79.5% (35) 20.5% (9)	85.2% (231) 14.8% (40)	0.458
Marital status	Married Single	23.9% (11) 76.1% (35)	50.5% (163) 49.5% (160)	0.001
Partner's employment	Employed Unemployed	23.9% (11) 76.1% (35)	36.9% (69) 63.1% (118)	0.137
Receiving social security benefits	Yes No	64.4% (29) 35.6% (16)	83.4% (256) 16.6% (51)	0.004
Receiving support from family/friends	Yes No	56.5% (26) 43.5% (20)	77.6% (250) 22.4% (72)	0.006
Receiving charity	Yes No	23.9% (11) 76.1% (35)	58.9% (189) 41.1% (132)	0.000

¹ Levene's test for equality of variances: $F=.103, p<.748$ (ns)

² Levene's test for equality of variances: $F=.3.370, p<.068$ (ns)

Food-insecure psychiatric patients relied less regularly on the support of family and friends than did food-insecure welfare clients (56% vs. 78%) and even less on charity (24% as compared to 59%) and on social security benefits (64% and 83%, respectively). Psychiatric patients were younger than welfare clients, less often employed (11% vs. 33%), and more often single (24% as compared to 51%). No differences were found between the groups in the employment status of spouses, which was low in both groups.

DISCUSSION

Israel has developed and instituted policies to create a safety net to address the health and social welfare needs of its citizens. The present study shows that as far as food security is concerned, this safety net is inadequate. A significant portion of those studied (40%-59%) were food insecure. In comparison to the general population in Israel and the U.S., psychiatric patients appear to be more than twice at risk for food insecurity, especially if their spouses

are unemployed. One possible explanation for this finding is that existing public support does not seem to ensure their food security. In comparison to another high-risk group – clients of welfare services – psychiatric patients underutilize vital community support networks such as family, friends, and charity food-distribution organizations.

This pattern may be attributed to the patients themselves as well as the psychiatric and community services. On the one hand, it is likely that the impairment of social functioning and social skills that accompanies mental illness limits the ability of psychiatric patients to effectively use informal support systems such as family and friends (34). On the other hand, psychiatric and community services personnel who are not aware of the problem of food insecurity and have limited knowledge of how to properly address it cannot help these patients to utilize existing support systems.

In sum, high rates of food insecurity have been reported in Israel (22% among the general population and 60.8% among recipients of welfare benefits), U.S.A. (14.9% among the general population and 60.8% among recipients of welfare benefits), Canada (9.2% among the general population and 55.5% among recipients of welfare benefits) and other western countries (4, 5, 35) with especially high rates among risk groups such as recipients of welfare benefits, the unemployed, and new immigrants (16-21). Therefore, it is the responsibility of psychiatric services, especially those located in the community, to enhance their patients' knowledge of and access to available food resources.

Since food insecurity may negatively affect the mental state of psychiatric patients and their rehabilitation, preventive measures are called for. First and foremost, the issue of food security needs to be included in the psychiatric evaluation. Secondly, psychiatric staff need to be informed of existing community responses and services in order to refer their patients to them. In Israel, specifically, it should be recognized that food-supply organizations are limited in terms of number, location, and the extent of resources available to address the growing problem of food insecurity (5).

Therefore programs specifically tailored for the psychiatric population need to be implemented in collaboration with mental health services and community food organizations. A special effort should be made to expand the ability of psychiatric patients to use informal support systems (36).

Finally, as the right to food security approach suggests (9, 37-39), the failure of national governmental action calls for developing joint interdisciplinary action on the part

of all community professionals serving high-risk populations such as psychiatric patients, welfare clients, people with drug addictions and others. Local and national coalitions (40) need to be established, including psychiatrists, physicians, social workers, nurses, public health experts, dietitians, and community activists. Among other activities, such coalitions could collect information on the extent of food insecurity in local communities and in various risk groups and make this information available to politicians, policy makers and managers in order to promote the food security of patients.

The prospective nature of this study, together with its relatively small sampling taken in one location and at one point in time, limit the degree to which its findings may be generalized. Nevertheless, they do alert clinicians and researchers to the need to study the problem of food security among psychiatric patients in larger samples, multicenter and longitudinal designs. Qualitative studies are also needed in order to learn how food-insecure patients interact with community support systems relating to food.

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Appendix:

Food Security Core Survey Short Form of the 12-Month Food Security Scale <http://www.ers.usda.gov/briefing/foodsecurity/surveytools/>

1. "The food that I bought just didn't last, and I didn't have money to get more." Was that often, sometimes, or never true for you in the last 12 months?
(1) Often true (2) Sometimes true (3) Never true
 2. "I couldn't afford to eat balanced meals." Was that often, sometimes, or never true for you in the last 12 months?
(1) Often true (2) Sometimes true (3) Never true
 3. In the last 12 months, did you ever cut the size of your meals or skip meals because there wasn't enough money for food?
(1) Yes (2) No
 4. How often did this happen – almost every month, some months but not every month, or in only 1 or 2 months?
(1) Almost every month (2) Some months but not every month (3) Only 1 or 2 months
 5. In the last 12 months, did you ever eat less than you felt you should because there wasn't enough money to buy food?
(1) Yes (2) No
 6. In the last 12 months, were you ever hungry but didn't eat because you couldn't afford enough food?
(1) Yes (2) No
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