

The assessment of mental disorders in primary health care clinics in the Gaza Strip

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Ten primary health care clinics in the Gaza Strip were randomly selected from the five regions that form the Gaza Strip (Southern region, Gaza City, Middle region, Khan-Younis and Rafah). The objective of the present study was to investigate the prevalence of mental health problems among patients attending primary health care clinics in the Gaza Strip. Six hundred and sixty-one randomly selected primary health care patients from the five regions were surveyed using the HSCL-25. Seventy-three per cent of patients visiting primary care clinics in the Gaza Strip had psychiatric symptoms consistent with psychiatric disorders. The prevalence of mental health problems among females was higher (76.8%) than males (67%). Previously married and single patients reported more distressing symptoms than married people. The results also revealed that the prevalence of mental health problems was higher among patients living in refugee camps. Civic status was not associated with mental health problems.

Key words: mental disorders; primary health care; socio-demographic variables

Introduction

Mental disorders constitute one of the most challenging health problems for primary health care professionals in both developed and developing countries (Weiller *et al.*, 1998) and (WHO, 1990). Epidemiological studies have reported significant differences in the prevalence rates of mental disorders among patients attending primary health care clinics (Barrett *et al.*, 1988; Feightner and Worrall, 1990; Goldberg and Huxely, 1980; Shepherd *et al.*, 1981). This may be related to differences in the survey tools used or to the differences in morbidity in the population studied (Al-Jade and Malkawi, 1997; Fink *et al.*, 1995; Goldberg and Richard, 1996; Portegijs *et al.*, 1996; Robins *et al.*, 1984). In screening for mental disorders, the common use of questionnaires such as the General Health Questionnaire (GHQ), Standardized Psychiatric Interview (SPI) and Hopkins Symptoms Checklist (HSCL-25) has generally estimated that mental disorders account for 20 to 40%

of all illnesses treated in primary health care settings in both developed and developing countries, respectively (Hansson *et al.*, 1994a; Keith, 1993; WHO, 1990). Results from these surveys also indicate that women, unmarried people, unemployed individuals and older patients have higher rates of mental disorders (Fink *et al.*, 1995; Froom *et al.*, 1995; Hansson *et al.*, 1994b; Kramer *et al.*, 1998).

A comparative study among different Nordic primary health care centres using the HSCL-25 as a screening instrument and a standardized psychiatric interview reported that 26% of the 1281 Scandinavian patients investigated were suffering from mental disorders (Fink *et al.*, 1995). When the HSCL-8D item was used as a subset of HSCL-25 through an exploratory analysis of the data based on factor loadings, it showed that 70.5% of the patients surveyed had no symptoms, 17% had one or two symptoms and 13% of the sample had three to eight symptoms. The HSCL-8D also showed that the most frequently reported symptom was worrying too much about things (15.7%), while the least commonly reported symptom was the feeling of worthlessness (6.2%).

A study from Jordan using the GHQ-28 as a screening tool showed that the prevalence of men-

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tal disorders among primary health care patients was 61%. The prevalence was highest among patients less than 40 years old (77%); and among the 18–29 years age group, the prevalence was 55%. Uneducated, unemployed, and female patients had higher rates of psychiatric disorders than others (Al-Jade and Malkawi, 1997).

The extent of mental health problems in primary health care settings among the Palestinian population is not known, but expected to be high due to overwhelming environmental stressors. Three generations of Palestinians have experienced oppression through exposure to violence, human rights abuses, imprisonment and home demolition. To make matters worse, Palestinians live in a culture that stigmatizes emotional difficulties. It is expected that the prevalence of mental health problems among Palestinian patients attending primary health care clinics would be higher than in Nordic countries where the political situation is relatively peaceful and stable. It is also expected that those living in refugee camps would be associated with a high prevalence of mental health problems.

The purpose of the present study was to investigate the prevalence of mental health problems in primary health care clinics in the Gaza Strip as part of a plan to integrate treatment of mental illness into primary health care settings. Furthermore, this study intends to investigate possible associations between sociodemographic factors (location of residence, age, sex, marital status and employment) and mental health problems. Finally, the purpose remains to compare the prevalence of mental health problems in Gaza with the Nordic countries.

Sample and method

In the Gaza Strip, primary health care services are largely offered through two main health sectors; the governmental or public sector and the United Nations Relief and Work Agency (UNRWA). Public health services are available both to refugees and original residents who are covered by health insurance. Approximately 40% of the population are insured (Barghouthi and Daibes, 1996). The remaining uninsured residents receive health services through charitable societies, nongovernmental organizations, and/or the private sector. It is estimated that 33 primary health care clinics are administered by the public sector in the Gaza Strip.

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UNRWA offers free primary health care only to registered refugees. UNRWA operates approximately 16 primary health care clinics throughout the Gaza Strip.

Ten primary health care clinics in the Gaza Strip were randomly selected from the five regions that compose the Gaza Strip (the South, Gaza City, Middle region, Khan-Younis and Rafah). Five of these clinics belong to UNRWA health services and five to the public sector.

The sample was drawn from patients coming to consult primary health care physicians in these 10 clinics. All patients aged between 16 and 55 years were included in the study. Patients coming to the clinics due to emergencies and for reasons other than illness (such as for a referral, vaccination, insurance or driver's license examinations, prenatal care, reports) were excluded from the study. Every second patient in each clinic was approached and invited to participate in the study from June to December 1998.

Participation was entirely voluntary and was requested through direct contact, where the purpose of the study was explained. A total of 670 patients were asked to complete the HSCL-25 questionnaire and 661 agreed to participate. For the nine patients who declined to participate in the study, pressure of time was the main reason given. All clarifications about the questions were answered. Written permission to conduct the research was obtained from the UNRWA headquarters and the Palestinian Ministry of Health. Medical consultation data were collected from both patients and physicians by trained interviewers. Of the 661 patients who completed the HSCL-25 questionnaire, 112 (17%) were excluded because they answered less than 23 items of the questionnaire. The mean and the median age of the final study sample of 549 patients was 30 years; female patients represent 57%. The sample distribution with respect to sociodemographic variables is shown in Table 1, indicating that 69% were refugees and 31% were original Palestinian residents. Almost all patients from the camps were refugees, while around 40% of those who came from the villages were refugees, and half of those from cities and from the newly developed areas of the Strip were refugees (86%). Forty-three per cent of patients from the camps were 16–24 years old (Table 1).

The HSCL has several versions of different

Table 1 Socio-demographic characteristics of patients in each residential area

	Total		Camp		Village		City		New areas	
	N	%	N	%	N	%	N	%	N	%
<i>Civic status</i>										
Original residents	171	31.2	15	6.5	79	60.3	71	50.0	16	14.0
Refugees	378	68.8	217	93.5	52	39.7	71	50.0	38	88.3
<i>Gender</i>										
Male	235	42.8	101	43.5	50	38.2	61	43.0	23	53.5
Female	314	57.3	132	56.9	81	61.8	81	57.0	20	46.5
<i>Age</i>										
16–24	204	37.5	100	43.3	43	33.3	39	27.7	22	51.2
25–34	146	26.8	60	26.0	25	19.4	51	36.2	10	23.3
35+	194	35.7	71	30.7	61	47.3	51	36.2	11	25.6
<i>Marital status</i>										
Married	355	64.7	138	59.5	93	71	99	69.7	25	58.1
Not married	194	35.4	95	40.9	38	29	43	30.3	18	41.9
<i>Occupation</i>										
House wife	222	40.6	92	39.8	55	43.5	64	45.1	9	21.4
Unemployed	112	20.4	56	24.2	314	13	19	19.0	356	28.6
Laborers	63	11.5	25	10.8	315	15.3	14	9.9	4	9.5
Office work	92	16.8	42	18.2	23	17.6	18	12.7	9	21.4
Student	60	11.0	19	8.2	14	10.7	19	13.4	8	19
<i>Education</i>										
No school	37	6.8	16	6.9	11	8.4	9	6.3	1	2.3
Primary	114	20.7	38	16.3	30	22.8	39	27.5	7	16.3
Preparatory	188	34.3	83	35.8	45	34.4	46	23.4	14	32.6
Secondary and higher	210	38.3	96	41.4	45	34.4	48	33.8	21	48.8

lengths (90–16 items) and has been used in a wide range of primary health care settings (Vaeroy and Merskey, 1997). The HSCL-25 was used as a screening instrument in the present study in order to detect mental health problems (Derogatis *et al.*, 1974; Joukamaa *et al.*, 1994). HSCL-25 has been established as a valid and reliable measure of psychiatric symptoms, in particular, screening of anxiety and depression experienced by the patient during the preceding week. Translated versions of the HSCL-25 have been widely used (Hansson *et al.*, 1994a; Joukamaa *et al.*, 1995; Nettelbladt *et al.*, 1993). In the present study, we prepared a translation of the HSCL-25 questionnaire in Arabic, as well as completing a back translation into English by a second resource person. This was done to identify misinterpretations of the questionnaire as compared with the original English version. The back-translated questionnaire was compared with the original material and discrepancies in terminology and phrasing corrected. Pilot testing

was carried out, and the Cronbach alpha reliability correlation coefficient was 0.77. On the HSCL-25 form, patients recorded their own estimates of symptom severity present during the past week on a four-point scale ranging from 1 ('not at all') to 4 ('extremely'). Responses were summed and divided by the number of the answers. The patient was considered in need of psychiatric intervention if the mean rating score was over 1.75 (Borgquist *et al.*, 1993; Hansson *et al.*, 1994a). The patients were also asked for information regarding demographic data such as age, sex, marital and civil status, living situation, and educational level. In order to compare these data with the Nordic study, the constructed version of HSCL-8D was used. It is a reduced version of HSCL-25, from 25 to eight items (Fink *et al.*, 1995).

Statistical methods

Data analyses were completed using the Statistical Programme Package for Social Science (SPSS)

software. Associations between selected independent variables and the outcome cases/noncases with mental health problems were investigated in bivariate analysis and tested for statistical significance by chi-square test. In conditional logistic regression analyses, crude and adjusted odd ratios (OR) were used as a measure of association. The level of statistical significance was set to $P \leq 0.05$ (95% confidence intervals).

Results

Prevalence of mental health problems

Overall prevalence of mental health problems among Palestinian primary health care patients was 73%, and higher among females (76.8%) than males (67%), $P = 0.013$ (Table 2).

With respect to marital status, previously married and single individuals demonstrated a higher prevalence of mental health problems than married patients ($P = 0.003$). Patients living in camps had a higher prevalence of mental health problems than those living in other places ($P = 0.03$). On the other hand, there were no significant differences between refugees and original residents of the Gaza Strip ($P = 0.79$), and likewise between the different educational levels and age groups ($P = 0.08$).

Based on the HSCL-8D items, the most commonly reported symptom in both the current and the Nordic study, was 'worrying too much about things' (Table 3). The present study showed that 45% of the patients felt that 'everything is an effort' compared with 16% among the Nordic patients ($P = <0.002$), while 27% of the Palestinian patients felt 'nervous' compared with 13% of

Table 2 Sociodemographic variables and psychiatric caseness according to HSCL-25 score^a

	Noncase HSCL <1.75		Cases HSCL \geq 1.75		χ^2 P value
	N	%	N	%	
All	150	27.3	399	72.7	
<i>Civic status</i>					0.791
Original resident	48	28.1	123	71.9	
Refugee	102	27.0	276	73.0	
<i>Gender</i>					0.013
Male	77	32.3	158	67.2	
Female	73	23.2	241	76.8	
<i>Education</i>					0.088
No school	8	21.1	30	78.9	
Primary school	33	29.2	80	70.18	
Unfinished secondary school	41	21.8	147	78.2	
Secondary and higher	68	32.4	142	67.6	
<i>Age</i>					0.169
16–24	47	23.0	157	77.0	
25–43	38	27.2	107	72.8	
35 above	61	31.4	133	68.6	
<i>Marital status</i>					0.003
Married	113	31.9	241	68.1	
Single	33	20.1	139	79.9	
Previously married	2	9.5	19	90.5	
<i>Living place</i>					0.033
Camp	48	21.1	183	78.9	
Village	45	43.4	86	65.6	
City	44	31.0	98	69.0	
New areas	12	27.9	31	72.1	

^aChi-square test for differences between categories.

Table 3 The HSCL-8D symptoms compared with the Nordic study

Symptoms	Nordic frequency of symptoms (<i>n</i> = 1281)		Palestinian frequency of symptoms (<i>n</i> = 549)		<i>P</i> value
	<i>n</i>	%	<i>n</i>	%	
Worrying	201	15.7	190	17.5	0.000
Everything is an effort	207	16.2	273	44.7	0.002
Nervousness	169	13.2	164	26.8	0.000
Depressive mood	144	11.2	107	17.5	0.043
Anxious	108	8.4	80	13.1	0.003
Hopelessness	114	8.9	131	21.4	0.000
Panic attacks	83	6.5	35	5.7	0.60
Low confidence	79	6.2	45	7.4	0.85

the Nordic patients ($P = <0.000$). The lowest symptom reported in both the Palestinian and the Nordic populations was a 'feeling of low confidence' (7 and 6%, respectively, $P = >0.85$). The study also showed that 14% of the Palestinian sample had no symptoms compared with 70% in the Nordic sample, while 30% had one or two symptoms compared with 17% among Nordic patients and 54% have three to eight symptoms compared with 13% among Nordic patients.

The study also indicated that refugees living in villages showed a lower prevalence of mental health problems than original residents, $P = 0.02$ (Table 4). Logistic regression analyses, controlling for selected independent variables (Table 5) showed that being single as compared with being married, living in refugee camps as compared with living in a village or city, were frequently associated with mental health problems. Sex, age, civic status or education levels (except unfinished secondary school) were not associated with mental health problems.

Discussion

Consulting primary health care clinics is a common way for people with mental health problems to seek support. As far as the authors are aware, no previous studies of the prevalence of mental health problems among patients attending primary health care clinics have been conducted in Palestine. The present study, among the first of its kind in the Gaza Strip indicates that mental health problems are common, affecting 73% of patients who receive nonemergency treatment from primary health care centres in the Gaza Strip. Women, people who were previously married and people living in refugee camps present the highest prevalence of mental ill-health symptoms.

With respect to representation, the population distribution according to civic status and place of living was approximately the same in the study sample and total population of Gaza (Barghouthi and Diabes, 1996). Among the total population of Gaza, 44% live in cities, 16% in villages, and 40%

Table 4 Psychiatric caseness (HSCL case ≥ 1.75) by and place of living and civic status

Civic status	Place of living			
	Refugee camps	Villages	Cities	New areas
Refugees	171 78.8%	28 53.8%	48 67.6%	28 75.7%
Original residence	12 80.0%	58 75.4%	50 70.4%	3 50.0%
<i>P</i> -value	1.00	0.025	0.86	0.33

Table 5 Association between mental health problems (HSCL-25, cut-off ≥ 1.75) and selected independent variables

Independent variables	Adj. OR ^a lower-upper	95% CI	P value
<i>Place of living</i>			
Refugee camp	Reference		0.031
Village	0.45 (0.26–0.79)		0.005
City	0.53 (0.31–0.90)		0.018
New areas	0.72 (0.34–1.54)		0.398
<i>Sex</i>			
Female	Reference		0.06
Male	0.69 (0.46–1.03)		
<i>Civic status</i>			
Original residence	Reference		0.289
Refugees	0.79 (0.47–1.25)		
<i>Education</i>			
Secondary and higher	Reference		0.150
No school	1.73 (0.72–4.16)		0.221
Primary school	1.34 (0.80–2.26)		0.265
Unfinished secondary	1.69 (1.05–2.71)		0.030
<i>Marital status</i>			
Married	Reference		0.029
Single	2.04 (1.09–3.79)		0.024
Previously married	3.16 (0.71–14.10)		0.131
<i>Age</i>			
35 years above	Reference		0.706
16–24 years	1.29 (0.68–2.43)		0.433
25–34 years	1.12 (0.59–2.10)		0.736

^aAdjusted for all independent variables shown in the table.

in refugee camps. Refugees constitute more than 75% of the total population, with 56% living in refugee camps, the remaining 44% living in the cities, villages and the so-called new areas. Whereas the proportion of refugees in the sample is 69%, the majority of them live in refugee camps (58%), and 42% live in cities, villages and new areas. These figures indicate that the present sample is reasonably representative of the population of Gaza. However, the aforementioned prevalence figures of mental health problems cannot be generalized to the entire population. It is, however, likely that these findings are valid for patients attending primary health care clinics in the Gaza Strip.

As expected, the prevalence of mental health problems is higher in Gaza than in the Nordic countries (Fink *et al.*, 1995), where the prevalence

was lower at 26%. However, the high prevalence among Palestinians is in accordance with a Jordanian study, which showed that the prevalence of mental disorders was 61%. Furthermore, the Jordanian study indicated that patients more than 40 years of age had the highest rate of mental disorders (77%), than those aged 18–29 years (55%) as well as those aged 30–39 years (56%). Findings reveal that among those with limited education, higher rates of mental disorders were evidenced (81%), as compared with those with a high school diploma (48%). The prevalence of mental disorders was higher among those who are unemployed than employed, 73 and 47%, respectively. It should be mentioned that considerable proportions of the population in northern Jordan are refugees from Palestine. In part, this may explain the similarity in prevalence rates between Gaza and the Jordanian study (Al-Jade *et al.*, 1997). The reported associations between mental health problems and variables of sex, age and marital status were similar to the Nordic study.

The HSCL-25 is suitable for psychiatric assessment in primary health care settings and this assessment tool generally shows high correlation with clinically assessed depression (Froom *et al.*, 1995). Lavik *et al.* (1999) carried out a validation study comparing the results of HCSL-25 with the Global Assessment of Function (GAF) and the Global Rating on the BPRS in a refugee population in Norway (the majority were from the Middle East). They reported that the HCSL-25 predicted mental health problems in the multicultural subject population. In the present study, a panel of experts evaluated the validity of HCSL-25. The questionnaires were discussed with five local experts to assess its relevance to Arab culture. The only difficulty in applying the questionnaire was that the patients felt embarrassed to answer the item about sex.

The differences in prevalence between the current study and the Nordic study may be related to differences in environmental and stress factors experienced by the patients. The Palestinian population is living through a long history of Israeli occupation and violence. Additionally, the Intifada, which started in 1987 as a mass expression of feelings and rejection of the Israeli occupation has altered the daily lives of Palestinians. The price of the Intifada has proved to be high – houses were demolished, curfews imposed, that sometimes

lasted up to 40 days, isolated families and friends, and night raids created fertile ground for stress-related problems among the population (Khamis, 1993; Qouta and El Sarraj, 1993; Qouta *et al.*, 1997a). The psychosocial consequences of imprisonment and torture of the Palestinians in Israeli gaols correspondingly created significant stress-related symptoms (El Sarraj *et al.*, 1996; Qouta *et al.*, 1997b).

Our data indicate that women report a higher prevalence of mental disorders than men, which is in accordance with several epidemiological studies (Kessler *et al.*, 1985; Kramer and Garralda, 1998; Piccinelli and Simon, 1997). Among stress factors particularly relevant to women, the contextual profile of life in Palestinian society means that women are living in a patriarchal community where men have more power and authority (Heiberg and Geir, 1994). Women are often exposed to a great deal of domestic violence and abuse from their husbands and blood relatives. A study by Qouta *et al.* (1999) indicated that 25% of women in Gaza were exposed to domestic abuse once in their childhood. Previously married people, especially females, face complex cultural constraints such as difficulty in getting remarried, inability to live independently, and poor prospects of finding jobs. Studies indicate that employed women are less prone to mental health problems than housewives (Hesbacher *et al.*, 1980).

During the Intifada, a 'collectivist' style of relating between individuals and their community existed; individuals put aside self-interest and obeyed the will of the group (Dwairy and De Gruyter, 1998) and (Mirowsky and Ross, 1989). They often renounced the losses of their beloved sons, husbands, brothers and fathers. When the Intifada subsided and was terminated by the Declaration of Peace Principles between Palestinians and Israelis, the high expectations and hopes that people had for the peace process were not subsequently realized. This outcome opened wounds created by the loss of important family members and friends. The process of looking back at the losses of loved ones might increase the likelihood of stress-related problems.

The study also indicates that the refugees living in camps have a higher prevalence of mental health problems, than those living in other areas. This variance may be explained by the bad economic situation, overcrowded housing, poor infrastructure and public health problems of the camps. In

addition, those refugees living in camps have suffered more than other segments of the Palestinian population during the Intifada. They were exposed to a number of harmful consequences, at a far more frequent rate than those who lived in cities or villages. These included imprisonment, shooting by the Israelis, night raids, and house demolition. One should consider that those who moved from the camps were the wealthier and most likely, healthier individuals, with greater self-esteem and higher personal resources.

Conclusion

The study has revealed that the prevalence of mental health problems among Palestinians attending primary health care clinics in the Gaza Strip is high in comparison with other nations. These results indicate a serious need for genuine efforts toward the integration of mental health treatment into primary health care settings. In order for such systemic change to meet the needs of all patients, greater emphasis on the total, whole person is a priority. Such an agenda is useful at individual and community levels. It could be argued that when people live in circumstances where there are political, social and economic hardships such as the population in Gaza, they would be predisposed to develop mental ill-health symptoms, which need urgent interventions at professional, political, environmental and social levels.

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