

The Ability of General Practitioners to detect mental health problems among primary care patients in a stressful environment: Gaza Strip

¹Afana Abdel-hamid; ²Dalgard, Odd Steffen; ²Bjertness, Espen; and ²Grunfeld, Berthold

¹Gaza Community Mental Health Programme, The Gaza Strip, Gaza City POBox 1049, Palestine.

²Institute of General Practice and Community Medicine, University of Oslo, Oslo, Norway

Correspondence: ¹Abdel-hamid Afana, Fax +972 8 2824072, Phone +972 8 2865949 E-mail hamid@gcmhp.net

Published in 2002 Journal of Public Health Medicine 24(4)

Summary:

Background: The aim of the present study was to investigate the detection rate by general practitioners (GPs) of mental disorders in a primary health care setting and relating the findings to selected GP characteristics and the patient sociodemographic characteristics.

Methods: The patients were assessed with respect to mental disorders by Hopkins Symptom Checklist 25 (HSCL-25), and the GPs were independently asked to fill in the Goldberg checklist II to assess the patient after consultation. The Sample consisted of 10 primary health care clinics in the Gaza Strip, which were randomly selected from the five regions that form the Gaza Strip (Northern, Southern region, Gaza City, Middle region, Khan-Younis and Rafah). Thirty-two GPs and 661 patients participated in the study. **Results:** The study showed that the GPs detected only 11.6 per cent of patients with mental health problems at HSCL-25 score >1.75 , and that the GP's assessment was not significantly associated with the HSCL-25 scores. GPs with postgraduate psychiatric training performed better in detecting mental health problems, likewise female GPs and those who were more than 40 years old. The results also revealed that the GPs were more able to detect mental health problems among patients older than 25 years, and in female patients. **Conclusions** The GPs' poor detection rate of mental disorders indicate the importance of mental health training for GPs working in primary health care clinics.

Key words

GPs, detection of mental disorders, primary health care, and stressful environment

Introduction

Studies have shown a high prevalence of mental disorders among patients requesting primary health care (PHC) in different parts of the world, varying from 20 per cent in the developed countries to more than 40 per cent in the developing countries (1, 2, 3, 4). However, the majority of these disorders often pass undetected and remain unrecognized by general practitioners (GPs), and represent hidden mental disorders (5). In their pioneering work of the “filters care model”, Goldberg and Huxley (6) indicated that around 50 per cent of primary health care patients are correctly diagnosed by the GPs as having psychiatric morbidity and only 12 per cent are referred to mental health services. Studies show that only the most severe mental disorders are well recognized by GPs (7, 8). Leon et al (9) reported that the patients who were assessed by GPs as mentally ill were significantly impaired. Although those patients often overuse primary health care services (10, 11), they do not receive the proper care and treatment (9, 12). In a Nordic study of the GP’s ability to detect mental disorders in primary care setting using a six-point psychiatric severity scale, Munk-Jorgensen et al (13) found that there were no significant differences between GPs’ diagnosis in five Nordic centres. GPs were able to recognize only 44 per cent of the patients who, according to psychiatric interview, were suffering from mental disorders.

Previous studies indicated that some factors might influence detection by GPs of patients with mental disorders, involving characteristics of patients and of the GPs. GPs’ ability to detect mental disorders is enhanced by the following patients’ factors: unemployment, female sex, middle age, minimal education, and widows and previously married (14, 10, 11). The vagueness of patients’ reporting of their symptoms, frequency of ill-defined syndromes and patients’ tendency to somatise their emotional complaints (15, 16), and or to avoid being

labeled as mentally ill (17) might mislead GPs' detection of mental health problems (and proper interventions).

The GPs' characteristics that might lead to low detection rate include their negative attitude, lack of mental health training, and their inability to put appropriate psychiatric diagnosis (18,5). In addition, time limitations to assess the patients due to long patient daily list may contribute to poor detection rates by GPs (19). It might be also that the GPs' tendency to see the presenting symptoms as transient and easily treatable leads them to avoid making psychiatric diagnosis (11).

The objectives

The objective of the study was to investigate the GPs' detection rate of mental disorders among patients attending PHC clinics in Gaza, and possible associations between detected mental disorders and GP's and patient's characteristics, such as age, sex, place of living, civic status and (for GPs' only) attendance of mental health training courses.

Populations and Methods

This study is part of an epidemiological investigation of mental disorders in primary health care in the Gaza Strip. The study was conducted in 10 randomly selected primary health care clinics in the five regions that form the Gaza Strip in both the government and United Nation (UNRWA) primary health care services. The patients were randomly selected from patients consulting GPs for health problems. A total of 670 patients were asked to complete the HSCL-25 questionnaire after consulting the GP, and 661 agreed to participate. For the nine patients who refused to participate in the study, pressure of time was the main reason given. Of the 661 patients who completed the HSCL-25 questionnaire, 112 (17 per cent) were excluded because they did not answer at least 23 items of the questionnaire. All patients aged

between 16 to 55 years were invited except those who come for vaccinations, insurance or driver's license examinations, prenatal care, reports, pregnancy problems and or emergencies. Every second patient in each clinic was approached and invited to participate in the study during the months of June to December 1998.. After medical consultation by the GP, both the selected patients and the GPs were asked to complete questionnaires. The patients filled in a 25-item version of Hopkins Symptoms checklist (HSCL-25), which has been used in a wide range of primary health care settings as a valid and reliable measure of psychiatric symptoms, in particular, screening of anxiety and depression experienced by the patient during the preceding week (20, 5). The Arabic translated version has proven to be reliable and valid in a multicultural context (21). The cut-off point score of HSCL-25 used in the study was 1.75; patients who scored ≥ 1.75 were considered as cases with mental disorders.

The GPs assessed the mental health status of the patients using the Goldberg II Scale (22), blind to the patient's HSCL-25 score. The Goldberg II scale is an instrument designed to identify and measure mental disorders in community settings. The severity of mental disorders was rated using a 5-category classification: "no mental disorder (1)"; "mild mental illness but couldn't be discovered clinically" (2), "mild but clinically significant mental illness" (3); "moderate mental illness" (4) and "severe mental illness" (5). The GPs also filled in a questionnaire on their sociodemographic status such as age, gender, place of living, civic status, years of experience, place of living and mental health training courses taken after completion of basic medical study. In addition, the GPs were asked about their understanding of the reasons for the patient's visit, using the categories of Goldberg & Blackwell (22, 23). The GPs' assessment of mental disorders using Goldberg II scale was calculated by summing up item 1 and 2 as no mental health problem (<3 GP-ve), and 3-5 as mental ill health cases

(≥ 3 GP+ve). These ratings were used as the basis for the estimation of the GP's ability to detect mental health problems as measured by HSCL-25.

Statistical methods

Chi-square test was used to detect possible differences between groups. Logistic regression analysis was used to analyze associations between patients' and GPs' characteristics and the GPs' detection rate. Level of significance was set to $P \leq 0.05$ (95 per cent) confidence interval (CI).

The Results

Using the cutoff point 1.75, the study showed that the GPs were able to detect as mental disorders, 11.6 per cent of the HSCL-25 cases (sensitivity) and as mentally not ill 91.9 per cent of the non HSCL-25 (specificity) (Table 1).

Table 1 Mental health problems as assessed by GPs using the Goldberg II scale, by Hscl-25 (values are numbers, with percentages given in parentheses)

GP detection of cases by Goldberg II			
HSCL-25	≥ 3 GP+ve	< 3 GP-ve	Total
≥ 1.75 HSCL-25+Ve	46 (11.6)	349 (88.4)	395 (100.0)
< 1.75 HSCL-25-Ve	12 (8.1)	137 (91.9)	149 (100.0)
Total	58 (10.7)	486 (89.3)	544 (100.0)

*HSCL+ = HSCL screening positive (≥ 1.75) *GP+ = mental disorder according to the GP assessment (≥ 3)

When GPs were asked about their general understanding of the reasons for the patients' consultation, 41.8 per cent of the non-GP+v cases consulted their GPs because of well-defined physical illness, whereas only 8.9 per cent of the GP+v cases came for the same reason. Only 7.9 per cent of the non-GP+v cases and 60.7 per cent of the GP+v cases consulted them due to mental disorders.

The study also showed that 28.8 per cent of patients assessed by the GPs as having mental disorders were very well known to their GPs. The study also indicated that 62% of the GPs agreed that psychosocial problems are important to the patient's health status.

The GPs ability to detect cases in relation GPs' characteristics:

The total agreement between the GPs' assessment and HCSL-25, and the sensitivity of the GPs assessment in various subgroups is shown in table (2). Female GPs were more able to detect mental disorders than males, with the sensitivity of 31.6 per cent compared to 6.6 per cent among males (P=0.00), and the total agreement of 44.4 per cent compared to 30.3per cent (p-value 0.004). The study also showed that GPs with postgraduate mental health training were more able to detect mental disorders than those without training (p-value 0.000), the sensitivity being 29.4per cent, compared to 6.8per cent, and the total agreement 42.0per cent compared to 30.9per cent. The study also showed that GPs aged 40 years and more are better case detectors than younger GPs (P= 0.002). The GPs' place of living had no significance.

(table 2 is near here)

The GPs' ability to detect cases in relation to patients' characteristics:

The GPs' detection rate was significantly associated with some patients' characteristics (table 3). GPs were more able to detect female patients than males, with the sensitivity of 15.1per cent compared to 6.4per cent (P= 0.008). However, the total agreement was not statically significant 31.8 compared to 35.3per cent (P=0.4). The study also showed that GPs were more able to detect mental health problems among those aged between 25 to 34 years compared to 16-24 years, the sensitivity was 16per cent and 5.8per cent respectively (P= 0.01) and the total agreement was 36.7per cent compared 26.5per cent (P= 0.03). The study also showed that the total agreement between the GPs' ability to detect mental health problems among patients living in villages and new areas was better than among people living in camps and new areas, the total agreement being 42.7per cent compared to 26.7per cent (p=0.01), the sensitivity being 15.1per cent and 17per cent compared to 8.2per cent 6.5per cent (p=0.09).

(Table 3 is near here)

To analyze the associations between the detection rate and GPs characteristics, a logistic regression was performed (table 4). The analyses showed that GPs' sex, (OR= 3.59;1.25-10.32) and postgraduate training in mental health (OR=2.82;1.01-7.86) were significantly associated with the GPs detection rate, while the association with place of living and civic status was not significant when controlling for other variables.

(Table 4 is near here)

The association between the GP's detection rate and the patient's characteristics was also investigated in a logistic regression analysis (table 5). It showed that patient sex and age were significantly associated with the GP's ability to detect mental health problems (OR= 2.34;1.12-5.07) and (OR=0.38;0.16-0.88) respectively, when controlling for the other variables. The study also showed that the patient civic status was significantly associated with GP detection (OR= 2.63, 1.41-4.91).

(table 5 is near here)

Discussion:

Previous studies have shown that the ability of GPs in diagnosing mental disorders varies widely, and that they tend to under-diagnose and underreport psychiatric morbidity among their patients. The current study indicated that the majority (88.4per cent) of mental disorders among primary health care patients in the Gaza Strip are hidden and pass undetected by Palestinian primary health care professionals, and only a small proportion (11.6per cent) are detected. It is remarkable that the percentages of detected cases by GPs is about the same in patients above and below the HSCL-25 cut off point, which indicates that symptoms as measured by this instrument plays a minor role in assessing mental health for the GPs in Gaza.

Although this detection rate is exceptionally low, it is to some extent in agreement with previous studies from other countries; for example, Kessler et al (24) showed that in Marshfield clinic in USA, the primary care providers, during the one-month follow up study, correctly recognized only 20per cent of patients. Coyne et al (8) found that GPs were able to detect only 30per cent of patients with depressive disorders.

The low detection rate revealed by this study is much lower than in the Nordic study where Munk-Jorgensen et al (13) found that GPs rated 54per cent of patients who, according to the PSE interview were definite psychiatric cases, as having no disturbances. It is, however, hard to compare the present study with the Nordic one, because the former used a psychiatric interview for the assessment of mental disorders. A limitation of the study is that psychiatric interview was not conducted for identified mental ill-health cases. This also can make the comparison with other studies difficult as far as they used different assessment methods in addition to the HSCL-25

The current study also indicated that GPs were most able to identify mental health problems among female patients, and those who are more than 25 years old. These results are consistent with prior studies including the Nordic studies (11, 25, 15, 22). It is also showed that the patient civic status was significantly associated with GP detection: GPs were more able to detect original residence patients more than refugee ones. The study also indicated that female GPs were performed better in detecting mental disorders than did male GPs.

In the Palestinian context there may be several reasons for the low detection of mental disorders by GPs in the Gaza Strip. There is no generally accepted definition of what constitutes a psychiatric case in primary health care settings. Primary health care physicians ignore, or are not familiar with, traditional psychiatric diagnosis criteria such as Diagnostic

and Statistical Manual of Mental Disorders (DSM IV-R) and sometimes apply their own conceptual framework such as “nervous breakdown”, “nervousness”, and others in place of accepted DSM-IV diagnosis. In this condition patients may be considered to have mental ill-health symptoms but may be are not enough to make a psychiatric diagnosis.

The inability of GPs to diagnose mental disorders does not necessarily imply that the GPs are unaware of psychological distress in their patients. The current study indicated that 62per cent of GPs agreed that psychosocial problems are important to their health status. They are aware of the possible mental disorders, but may feel that labeling and treatment may do more harm than good, that treatment is not feasible due to time or financial constraints, that patients may resist a psychiatric label and resist treatment recommendations, or that psychiatric disorders are outside the realm of the GPs competence or responsibility. The GPs might also think that the distressing symptoms would remit spontaneously when the patient’s environmental constraints improved. However, it is very likely that at least part of the non-recognition is due to a lack of diagnostic vigilance and skills. The study indicated that GPs would perform better when the symptoms of mental disorders are clearer and are not presented in physical symptoms, and that GPs don’t recognize psychological symptoms associated with a physical illness unless these symptoms are apparent and clearly verbalized by patients.

It could be, however, that not only lack of competence influences the GPs’ ability to detect mental disorders, but it has also to do with both the patients’ and the GPs’ attitude towards mental health problems. It seems that the patient’s cultural background may play a crucial role in presenting mental health sufferings. In the Middle East and African countries, the social stigma attached to mental health problems is high, why both patient and GPs would be reluctant to reveal such problems.

This study indicated that patients well known to GPs were better assessed by them within their limited time. The average time spent on each patient in PHC is around 5-10 minutes, which makes it difficult to conduct a thorough mental health examination and psychiatric history. The female GPs are better case detectors than males, and that mental disorder among females is more easily detected, might be explained by that females GPs being better listeners and more sympathetic to psychological problems than male GPs, and by female patients feel more open, and more able to express their feelings than male patients.

The study was conducted during a time of high stress because of the generally difficult situation in Gaza, and the stalemate in the Palestinian/Israeli peace negotiations. The failure of four years of Oslo Accord to bring tangible results led to an overwhelming frustration and a state of hopelessness in the Palestinian community. One possible reason for under detection of mental health problems by GPs could then be that the symptoms were considered as a “normal” reaction to an exceptional social and political situation, rather than an expression of mental disorders. The particularly low detection rate among refugees support this hypothesis.

Implications of the study

The results of the study revealed that GPs in the Gaza Strip are poor in assessing mental disorders. This indicates the challenge of integration of mental health into primary health care settings. As a step towards such integration, mental health training for primary health care professionals is crucial. Two main training components have to be highlighted: (1) GPs should have both the technical training to identify mental disorders, and training to identify the social and cultural issues germane to mental illness. (2) GPs should be equipped with communication, interview and counseling skills.

Table (2) the detection rate of mental health cases (sensitivity) by GPs characteristics.

GP factor	No. of cases detected	Sensitivity %	P	Total agreement	p
Age <40 years >=40 years	13 33	7.0 15.7	0.007	31.1 35.3	0.31
Place of living R. Camp Village City New areas	1 12 32 1	2.8 26.7 10.7 7.1	0.004	25.5 46.0 32.6 27.8	0.09
Sex Male Females	21 25	6.6 31.6	0.000	30.3 44.4	0.004
Civic status Refugee Original residence	24 22	9.2 16.3	0.04	27.3 43.3	0.000
Psychiatric training No psych. training Yes psych. training	21 25	6.8 29.4	0.000	30.9 42.0	0.02

Table (3) Patients detected by GPs based on the patient's characteristics

Patient factor	No. of detected cases	Sensitivity %	P-value	Total agreement	P-value
Place of living R. camp Village City New areas	15 13 16 2	8.2 15.1 17.0 6.5	0.09	26.7 42.7 36.6 30.2	0.01
Age 16-24 years 25-34 years 35 above	9 17 20	5.8 16.0 15.3	0.01	26.5 36.7 38.1	0.03
Civic status Original residence refugee	23 23	19.3 8.3	0.002	38.0 31.2	0.11
Sex Male Female	10 36	6.4 15.1	0.008	35.3 31.8	0.4

Table (4) the association between GP's detection of mental health problems and GPs' characteristics

GP characteristics	No of cases	Crude Odd Ratio (OR)		Adjusted Odd Ratio (OR)	
		OR (95%CI)	P- value	OR (95% CI)	P- value
Sex			0.00		0.02
Male	21	Ref.		Ref.	
Female	25	6.50 (3.40- 12.44)		3.59 (1.25-10.32)	
Civic status			0.04		0.77
Original residence	22	1.91 (1.03- 3.56)		1.14 (0.46-2.81)	
Refugees	24	Ref.		ref.	
Psychiatric course			0.00		0.04
Without course	21	Ref.		Ref.	
With course	25	5.73 (3.01- 10.91)		2.81 (1.01-7.85)	

Table (5) Association between GP's detection of mental health problems and patients' characteristics

Pt. characteristics	No of cases detected	Crude Odd Ratio (OR)		Adjusted Odd Ratio (OR)	
		OR (95%CI)	P- value	OR (95% CI)	P- value
Sex					
Female	36	2.61 (1.25- 5.45)	0.001	2.34 (1.12-5.06)	0.02
Male	10	Ref.		Ref.	
Civic status					
Original residence	23	Ref.	0.002	Ref.	0.08
Refugees	23	2.63 (1.41- 4.91)		0.50 (0.22-1.10)	
Age			0.02		0.02
16-24 years	9	0.34 (0.14- 0.77)	0.01	0.38 (0.16-0.88)	0.02
25-34 years	17	1.06 (0.52- 2.14)	0.87	1.17 (0.56-2.41)	0.68
35 and above	20	Ref.		Ref.	

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