

Psychiatric Morbidity in an Urban General Practice

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Summary

Two hundred and six patients attending an urban general practice were surveyed using a self-rating questionnaire, the 30-item version of the General Health Questionnaire.

At a cut-off score of 6/7, 34.5% of the respondents were found to be high-scorers which gives a corrected estimate of psychiatric morbidity of 29.9% in this clinic. Among those who presented with general complaints, such as aches and pains for which no organic cause was found, a significant proportion (70%) were high-scorers. There were no significant differences in the sex and age distribution of the high-scorers. However the mean score of Malays was significantly higher than that of Chinese.

Key Words: General practice, General health questionnaire, Psychiatric morbidity

Introduction

A major development in psychiatry in the last 20 years is the recognition that most psychiatric patients do not come to psychiatrists¹. A review of the relevant literature shows that there is a considerable amount of psychiatric morbidity in patients attending a general practice. As much as one-third or more of general practice patients have been reported to be suffering from some form of psychiatric disorder, usually a minor disorder such as anxiety or minor depression^{2,3,4,5}. Eisenberg⁶ has commented on the large numbers of patients with anxiety and depression who present to non-psychiatrists and the economic burden these conditions impose on the community. The problem is compounded by low detection rates especially for depression⁷. A longitudinal analysis by Von Korff *et al*⁸ and studies by Wells and Burnam⁹ have shown that there is considerable disability due to depression in the community.

Findings such as these have important implications for the training of general practitioners (GP) as well as medical students. They have prompted efforts to

educate GPs as well as the public on recognition and treatment of these illnesses most recently by the Royal Colleges of General Practitioners and Psychiatrists of the United Kingdom¹⁰. Lloyd has suggested the use of screening instruments such as the General Health Questionnaire (GHQ), to detect such disorders in general practice¹¹.

The aim of this study is to find the prevalence of psychiatric morbidity in an urban general practice by using the GHQ as a screening instrument.

Method

The 30-item version of the GHQ was administered to consecutive attenders at an urban general practice. This clinic is situated in the central business district of Kuala Lumpur and caters mainly to office workers in the private sector. Two GPs manned this clinic at the time of this study.

The GHQ-30 was developed by Goldberg¹² and has been widely used as a screening instrument in a number of countries. It has the advantage of being

short and therefore could be quickly filled in by patients waiting to collect their medication, a feature that is of great help in any research conducted in a busy general practice. Its validity for use in a local population was established by the author in another study (unpublished observations) and a cut-off score of 6/7 was used (which gave a specificity of 90% and a sensitivity of 92%). It should ideally be used in a two-stage study for initial screening for psychiatric caseness followed by a definitive interview to confirm the diagnosis, since this instrument does not generate a diagnosis but detects caseness. However it has been used in one-stage studies to give an indication of the amount of psychiatric morbidity¹³, and is used in this way in this study.

Since most of the patients attending this clinic were office workers with secondary education, the GHQ was suitable for this sample. Those who had a poor grasp of English were excluded from the study. In any event only a handful were so excluded, they being mainly office boys and cleaners. The subjects who consented to participate in the study were asked by the GP to

fill in the GHQ while waiting to collect their medications.

Statistical tests employed were the Chi-squared test with Yates' correction where appropriate, and the test of the significant difference between means. The probable prevalence rate was calculated by using the formula:-

Probable Prevalence Rate = $(HP - fp) / (S - fp)$ where HP = % of high-scorers, S = sensitivity, fp = false positive rate = 1 - specificity.

In the author's validation study of the GHQ-30 at a cut-off score of 6/7, a sensitivity of 92% and a specificity of 90% were obtained.

Results

Two hundred and eight patients filled up the questionnaire, two of which were rejected because of late return. The race and sex distributions of the sample is shown in Table I. Chinese consisted 50.5% of the sample and Malays 39.4%, the rest (10.2%)

Table I
Demographic characteristics of subjects

	Chinese	Malay	Others	Total
Male	41	44	7	92 (44.7%)
Female	63	37	14	114 (55.3%)
Total	104 (50.5%)	81 (39.4%)	21 (10.2%)	206 (100%)

Table 2
Race and sex distribution and GHQ score

		Male		Female		Total	
		< 7	7 or >	< 7	7 or >	< 7	7 or >
Chinese,	N = 104	27 (66)	14 (34)	49 (78)	14 (22)	76 (73)	28 (27)
Malay,	N = 81	24 (55)	20 (45)	22 (59)	15 (41)	46 (57)	35 (43)
Others,	N = 21	4 (57)	3 (43)	9 (64)	5 (36)	13 (62)	8 (38)
Total,	N = 206	55 (60)	37 (40)	80 (70)	34 (30)	135 (66)	71 (34)

Note: Numbers in parentheses refer to percentages within group e.g. 66% of Chinese males scored less than 7

being Indians and Eurasians. There was an excess of Chinese females in this sample.

The total number of patients with a score of seven and above, that is the potential number of psychiatric cases, was 71 (34.5). As shown in Table II, significantly more Malays were high-scorers as compared to Chinese (27%) [Chi-squared value = 4.68, $p < 0.05$]. The mean overall score was 5.39 (s.d. = 5.30), with a range of 0 - 29. The Chinese had the lowest mean score (4.62) whereas the Malays had the highest mean (6.38). This difference was statistically significant at $p < 0.05$ (standard error of difference between means = 0.80). Indians and others had a mean score of 4.91.

Though males consisted 44.7% of the sample they accounted for 52.1% of the high-scorers, though this difference was not significant. The mean score for men was 5.63 (s.d. = 5.27) and that for women was 5.05 (s.d. = 5.31).

Age distribution

Eighty four per cent of the subjects were between the ages of 20 to 39 years and there was no significant difference in the age-group distribution between Malays and Chinese. The mean age, and scores according to age distribution are given in Table III. However the average age of the high-scorers (those with scores of 7 and above) was lower than that of low-scorers, but this difference was not statistically significant. There was a negative correlation between age and GHQ score but this again was not statistically significant (correlation coefficient, $r = - 0.22$). Those in the 20-

29 years age-group had the highest mean scores of 6.6, but this is not unexpected as the onset of many neurotic illnesses is often in young adulthood.

Diagnostic groupings

Analysis according to diagnostic grouping shows that those with general unexplained complaints have the highest percentage of potential cases (70%), followed by the obstetric/gynecological group (60%) and those with abdominal (gastrointestinal / genitourinary) complaints (48%), as shown in Table IV. An analysis of the four largest groups shows a statistically significant excess of high scorers among patients who present with general complaints such as aches, pains and insomnia [Chi-squared value = 4.32, $p < 0.01$]. Of the 14 Chinese men who were high-scorers, six (42.9%) presented with abdominal complaints though this was not significant, neither was there a significant difference in the proportions of high-scorers among Chinese females (22.2%) and Malay females (40.5%).

Discussion

That more than one-third of patients attending this clinic are potentially psychiatric cases is consistent with other studies^{1,2,3}. If a cut-off score of 4/5 was used, 46.1% of the patients would have been classified as potentially psychiatrically ill.

It is interesting that more than two-thirds of patients presenting with unexplained aches and pains were high-scorers. This confirms the clinical impression that patients with anxiety and/or depression often present

Table III
Age distribution and GHQ scores

Age-group	< 7 (%)	≥ 7 (%)	Mean score	Total
20 - 29	79 (58)	58 (42)	6.59	137
30 - 39	40 (78)	11 (22)	4.20	51
40 - 49	11 (85)	2 (15)	2.62	13
50 - 59	3 (60)	2 (40)	5.40	5

Note: Numbers in parentheses refer to percentages within age-group

Table IV
Presenting complaints and GHQ score

Nature of complaints	High-scorers		Low-scorers		Total
	N	(%)	N	(%)	
Respiratory	29	(30.2)	67	(69.8)	96
Abdominal	12	(48.0)	13	(52.0)	25
General	14	(70.0)	6	(30.0)	20
Skin	5	(26.3)	14	(73.7)	19
Obstetric/Gynecological	6	(60.0)	4	(40.0)	10
Accidental Injuries	2	(28.6)	5	(71.4)	7
Chronic Illnesses	1	(16.7)	5	(83.3)	6
Others	2	(14.3)	12	(85.7)	14
Normal (no complaints)	0	(0)	9	(100.0)	9

Note: 1. 'Abdominal' includes those with gastrointestinal and genitourinary complaints.

2. 'General' includes those with aches, pains, insomnia or giddiness for which no organic cause was found.

3. 'Chronic' refers to patients coming for repeat medications for diabetes or hypertension etc.

4. 'Normal' refers to patients coming for medical examinations for insurance or employment purposes.

with somatic complaints of unexplained etiology. Lipowski¹⁴ states that half of depressed patients in a general medical setting present with somatic complaints, and the GP would have to take a more detailed psychosocial history in these cases who fall on the border between medicine and psychiatry. It would be better if the GP used an instrument like the GHQ-30 (which only takes about 5-10 minutes to fill in) on these patients to select those whom he has to pay more attention to, so that he may utilise his time more economically.

The finding that a greater proportion of Malays (43.2% as compared to only 27% of Chinese) scored higher as well as having a higher mean score (6.38 as compared to 4.32 for Chinese) is interesting. These differences are mainly contributed to by both young Malay men and women having a high proportion of high-scorers. A second-stage study involving psychiatric interviews would help to elucidate the significance of this finding.

At the threshold score of 6/7 this questionnaire carries about 90% specificity and 92% sensitivity. This means that the probable prevalence rate of psychiatric disorder among the patients who attended this urban clinic during the study period is 29.9%, a figure similar to that of other studies^{1,2,3}. This highlights the point that a majority of psychiatric patients are seen not in psychiatric settings but in a general practice setting. This implies that continuing education in psychiatry for GPs is of great importance for them to effectively manage these patients and refer them for specialist help where necessary. The GP needs to be especially adept at detecting and managing minor affective disorders. Pullen¹⁵ has succinctly summarised the interview skills necessary for a GP to be an accurate case detector, among which are empathic skills, establishing eye-contact, and being sensitive to verbal and nonverbal cues. Medical students, a majority of whom will be either GPs or primary care doctors in other settings, need to be exposed much more to the minor psychiatric disorders such as generalised anxiety and

minor depressive disorder, preferably as part of a general practice posting. The present emphasis of training of medical students in psychiatric units where they largely see severe and relatively chronic psychotic conditions, needs careful review.

In conclusion, this study indicates that GPs would have to consider minor psychiatric illnesses as

differential diagnoses when treating young patients with unexplained aches and pains.

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References

1. Carr VJ, Donovan P. Psychiatry in General Practice: A pilot scheme using the Liaison-attachment model. *Med J Austr* 1992;156 : 379-82.
2. Goldberg B, Blackwell B. Psychiatric illness in General Practice. *BMJ* 1970;2 : 439-43.
3. Sims ACP, Salmon PH. Severity of Symptoms of Psychiatric Outpatients: Use of the GHQ in Hospital and General Practice Patients. *Psycholog Med* 1975;5 : 62-6.
4. Mann AH, Lewis G. Problems and Solutions: Psychiatric Disorder in British General Practice. *Int Rev Psychiatry* 1992;34 : 235-358.
5. Van Den Brink W, Leenstra A, Ormel J, Van De Willige G. Mental Health Intervention Programs in Primary Care: Their Scientific Basis. *J Affective Disord* 1991;21 : 273-84.
6. Eisenberg L. Treating Depression and Anxiety in Primary Care. Closing the Gap Between Knowledge and Practice. *N Engl J Med* 1992;326 : 1080-4.
7. Dowrick C. Improving Mental Health Through Primary Care. *Br J Gen Pract* 1992;42 : 382-6.
8. Von Korff M, Ormel J, Katon W, Lin EH. Disability and Depression Among High Utilizers of Health Care. A Longitudinal Analysis. *Arch Gen Psychiatry* 1992;49 : 91-100.
9. Wells KB, Burnam MA. Caring for Depression in America: Lessons learned from Early Findings of the Medical Outcomes study. *Psychiatr Med* 1991;9 : 503-19.
10. Priest RG. A New Initiative on Depression [Editorial]. *Br J Gen Pract* 1991;41 : 487.
11. Lloyd GG. Psychiatry in General Medicine. In: Kendall RE, Zeally AK. (eds). *Companion to Psychiatric Studies*. Edinburgh: Churchill Livingstone, 1993 : 779-92.
12. Goldberg D. *Manual of the General Health Questionnaire*. Windsor: Nfer-Nelson, 1978.
13. Boardman AP. The General Health Questionnaire and the Detection of Emotional Disorder by General Practitioners - A Replicated Study. *Br J Psychiatry* 1987;151 : 373-81.
14. Lipowski ZJ. Somatization: Medicine's unsolved problem. *Psychosomatics* 1987;28 : 294-7.
15. Pullen I. Psychiatry in General Practice. In: Kendall RE, Zeally AK. (eds). *Companion to Psychiatric Studies*. Edinburgh: Churchill Livingstone, 1993 : 761-78.