

NON-SPECIFIC SYMPTOMS AND SCREENING OF NON-PSYCHOTIC MORBIDITY IN PRIMARY CARE¹

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SUMMARY

Much of the non-psychotic mental morbidity in primary care goes undetected by the primary care health personnel. This is often because of the non-specific somatic nature of the presenting complaints of these patients and the difficulty on the part of the primary care physician to elicit specific emotional symptoms to screen psychiatric problems. This paper describes the development of the 7-item Primary care Psychiatric Questionnaire (PPQ) which, by requiring to elicit only the non-specific symptoms, could overcome this practical difficulty. This new screening method has been standardised against the Self Report Questionnaire—20-item version which is commonly used in primary care.

It has been fairly well established that the rate of psychiatric morbidity in developing countries is as much as that in the developed countries. For example, the WHO Collaborative study on strategies for extending mental health care in developing countries including India (Harding et al., 1980), the recorded frequency of mental morbidity was ranging from 10.6% to 17.7%, a rate just below the percentage found in the industrialised nations. With an estimated prevalence of severe mental disorders at around 1 to 2% in India (Wig, 1984), majority of this morbidity is made up by the 'minor' non-psychotic morbidity. Prevalence rates of upto 50% have been found in primary care populations attending general hospitals and primary health care centres (Bagadia et al., 1985; Sen, 1987), majority of them having non-psychotic morbidity.

Despite the knowledge that psychiatric problem is widely prevalent in the community, little is known how well the primary care physicians detect and manage mental disorders (Yager & Wells, 1984). They point out that this knowledge is important

because patients with psychiatric diagnoses are high users of non-psychiatric medical care facilities. Much of the psychiatric morbidity presenting to the general practitioners and general hospitals remain undetected (Goldberg & Blackwell, 1970; Nikapota et al., 1981). The estimation of frequency of minor emotional disorders amongst their patients, the general practitioners varied as much as ninefold (Shepherd et al., 1966) and it was seen that they failed to detect between 33% and 50% of cases with psychiatric disorder presenting to them (Blacker and Clare, 1987).

The important factor leading to such under-reporting by the primary care physician seems to be the non-specific and somatic nature of the complaints presented by patients with non-psychotic morbidity (Shepherd et al., 1966; Wig and Singh, 1967; Goldberg and Blackwell, 1970; Nikapota et al., 1981; Bagadia et al., 1986 and Sen, 1987). Though the general practitioners felt that these symptoms were psychogenic, they wanted to exclude organic etiology (Shepherd et al., 1966). They tended to

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take these symptoms at their face value and prescribed symptomatic treatment and only when the condition failed to respond and physical investigation proved negative did they think in psychiatric terms. Goldberg and Huxley (1980) were of the opinion that this failure to recognise patients who need psychiatric help, stems largely from inadequacies in the practitioners' interviewing skills. Whatever may be the cause, such non-detection and non-specific management of psychiatric patients will prove to be an avoidable additional burden on the meagre resources of primary health care system, especially in developing and under-developed countries.

Patient's preference to report somatic rather than emotional complaints have been variously explained based on clinical, social, cultural and linguistic reasons (Shepherd et al., 1966; Goldberg, 1972 and Sen, 1987). However to be able to elicit, interpret and handle emotional complaints require the physician himself to be capable of handling his own emotions and to be less 'conservative' in his approach to psychiatric patients (Goldberg, 1972a). The health personnel in a busy primary care clinic, would thus understandably be strained to put in more effort in terms of time and emotion if they are required to detect psychiatric cases by eliciting specific emotional symptoms. Since the non-specific somatic symptoms are an easy mode of communication of psychiatric distress for the patients and the 'somatically' oriented physician can elicit and interpret such symptoms without any additional effort, a screening procedure which uses elicitation of somatic symptoms only will be of more practical use in everyday clinical practice.

This study is an attempt in that direction and was conducted in two stages. In the first stage, the most significant non-specific somatic symptoms reported by the psychiatric patients were selected which formed the screening questionnaire which

was standardised in the second stage of the study against routine clinical diagnosis as well as a standardised research instrument, the Self-Report Questionnaire (Harding et al., 1980).

MATERIAL AND METHOD

The study was conducted at the out-patient department of Sri Ramachandra Hospital located on the outskirts of the city of Madras in Southern India. The patient population utilising the out-patient services offered are predominantly rural (90%), illiterate (62%) and labour class group (75%) and resemble the population of any primary care service in the country.

Stage I

100 new adult patients selected by systematic random sampling formed the study group. They were first administered the 11-item symptom check-list (vide infra, Appendix I), followed by a detailed standard clinical psychiatric examination, blind to the responses made on the check-list. Psychiatric diagnosis was made using the ICD-9 (WHO, 1978). Physical examination and diagnosis of physical illness, if any, was made by the Physician/Surgeon.

The symptom check-list attempted to score the presence or absence of 11 non-specific somatic symptoms. These 11 symptoms lasting for a period of 3 months or more were found to be significantly high in the psychiatric patients compared to physically ill patients, in a previous study conducted by the authors (to be published). These symptoms are also scored in some of the standardised screening instruments used in primary care like the General Health Questionnaire (Goldberg, 1972) and the Self-Report Questionnaire (Harding et al., 1980).

The psychiatric morbidity detected was 61%, of which 20 cases (20%) had only psychiatric illness (Group A) and 41 cases

(41%) had both psychiatric and physical illnesses co-occurring (Group B). The remaining 39 cases (39%) had only physical illness (Group C). There were significantly more females ($N=43$) than males ($N=18$) in the psychiatric group ($X^2=10.25$, $d.f.=1$, $p<.001$). All the cases belonged to non-psychotic categories with depression forming the majority (44 cases). There were 9 cases of anxiety neurosis, 5 cases of psychalgia, 2 cases of alcoholism and 1 case of hypochondriasis. The scores on each item of the symptom check-list was compared among the three groups of patients using the z test of significance and the results are shown in Table I.

Stage II

200 new adult patients were selected as in the first stage. They were administered the standard Tamil version of the 7-item Primary care Psychiatric Questionnaire, -PPQ (see appendix I) whose development is described in the results. The patient group was then administered the 20-item version of the Self-Report Questionnaire (SRQ). This instrument had been translated into the regional language Tamil, by standard methods of translation and back-translation, and was put into trial in a pilot study to establish its reliability and validity. The results of the pilot study showed a high inter-rater reliability ($kappa$ 0.85) for the translated version of SRQ and a cut-off score of 6/7 gave high specificity (82%) and sensitivity (90%) for the questionnaire. The same cut-off score was adopted for this study to identify cases. Following the SRQ, the patients underwent psychiatric examination by the Psychiatrist, who was blind to the responses on the PPQ and the SRQ. A clinical diagnosis using the ICD-9 (WHO, 1978) was made. Diagnosis of physical illness was made by the Physician/Surgeon.

The SRQ with a cut off score of 6/7 identified 104 probable psychiatric cases

(52%) and by clinical diagnosis 103 cases (51.5%) were identified, with 94.5% of cases being identified by both methods. There were significantly ($p<.01$) more females ($N=71$) than males ($N=32$). As in the first stage all the patients received a diagnosis of non-psychotic illness. The depressive disorders were in the majority (74 cases). Other diagnoses made were, anxiety neurosis (18 cases), neurasthenia (3 cases), psychalgia (6 cases) and alcohol dependence syndrome (2 cases).

The validity coefficients of the Primary care Psychiatric Questionnaire (PPQ) were measured by standardising it against the SRQ and routine clinical diagnosis on the ICD-9. The results are shown in Tables II and III.

RESULTS

The results of the first stage of the study shown in Table I indicate to 7 of the 11 non-specific somatic symptoms being highly significant ($p<.01$) in the psychiatric pati-

TABLE I. Inter-group comparison of nonspecific symptoms

Symptom scored	z test values		
	Gp.A/ Gp.C	Gp.B/ Gp.C	Gp.A/ Gp.B
†1. Generalised aches and Pains	3.79**	4.35**	0.65
2. Headache	2.52*	2.55*	0.63
3. Pain in the chest	2.52*	4.02**	0.99
4. Shortness of breath	1.65	3.93**	1.18
†5. Unduly tired, fatigued	3.74**	5.40**	1.16
†6. Giddiness, dizziness	2.77**	5.24**	1.75
†7. Feeling weak	2.74**	5.39**	1.56
†8. Unable to work as before	3.06**	6.11**	1.90
†9. Sleeplessness	4.14**	5.52**	0.26
10. Appetite loss	2.03*	4.11**	1.02
†11. Forgetfulness	2.73**	4.55**	1.43

Patient groups :

A : Psychiatric illness only ($N=20$) *— $p<.05$

B : Psychiatric and physical illness combined ($N=41$) **— $p<.01$

C : Physical illness only ($N=39$)

† : Significant in both groups A and B.

TABLE II. PPQ validity coefficients—SRQ-20 positive Cases

Cut-off score adopted	Specificity (%)	Sensitivity (%)	PPV (%)	NPV (%)	MCR (%)
0/1	67	99	77	99	17
1/2	77	97	82	96	13
2/3	79	94	83	93	13
3/4	87	89	88	87	12
4/5	90	79	89	80	16
5/6	95	58	95	68	24
6/7	100	20	100	54	42

PPV : Positive predictive value

NPV : Negative predictive value

MCR : Misclassification rate

TABLE III. PPQ validity coefficients—clinical diagnosis

Cut-off score adopted	Specificity (%)	Sensitivity (%)	PPV (%)	NPV (%)	MCR (%)
0/1	64	99	76	98	17
1/2	70	99	78	97	16
2/3	76	94	81	93	15
3/4	81	88	84	87	15
4/5	87	80	86	80	17
5/6	96	60	94	69	23
6/7	100	20	100	59	41

PPV : Positive predictive value

NPV : Negative predictive value

MCR : Misclassification rate

ents (with or without co-occurring physical illness). The appendix I gives the list of symptoms in their English version. The 7 significant non-specific symptoms (which lasted for a period of 3 months or more) formed the Primary care Psychiatric Questionnaire (PPQ) which was standardised in the subsequent part of the study. An inter-rater reliability exercise was conducted on the Tamil version of the PPQ, which showed a high degree of reliability ($r=0.90$) on this instrument.

The tables II and III show that the PPQ has good validity when standardised against both the SRQ and routine clinical diagnosis. The specificity and sensitivity

of PPQ varies depending on the cut-off score used, with lower cut-off point tending to 'overinclude' cases (high sensitivity and low specificity) and higher cut-off scores resulting in opposite results. At a cut-off score of 3/4, the specificity and sensitivity are well balanced.

The tables II and III show that when all the 7 symptoms are present the specificity is 100%, thereby indicating that in non-cases such occurrence of the full 'syndrome' of non-specific symptoms is absent.

DISCUSSION

Difficulties associated with recognition and treatment of psychiatric disorders in primary health care system, the 'first contact' medical care, has been the focus of attention for some years now in developing countries like India. The National Mental Health Programme drafted in India (1983) emerged out of such concerns and was aimed at training the non-psychiatric physicians, para-medical health personnel and peripheral health workers in the detection and management of mental disorders at the community level. Its emphasis has so far been on priority (major) mental illnesses (ICMR, 1983). The so-called 'minor' non-psychotic mental disorders are of no less priority as they are highly prevalent in the primary care patients who strain the general health care delivery system, as many of them go undiagnosed and receive non-specific physical treatment. Early detection of such cases by the primary care health personnel is therefore necessary, but there are certain difficulties faced in this regard. One is that though epidemiological methods using standard methods of observation to estimate the frequency of neurotic disorders in the general population are reliable and valid, they have proved to be extremely costly in terms of time, money and effort (Sartorius, 1977). Second is the presentation of non-specific somatic symptoms in preference to emotional

symptoms by the non-psychotic patients, whose roots had earlier been discussed in the introduction. Hence a screening method which is short, easily adapted to the routine of a crowded clinic of a primary health centre, a general hospital or a general practitioner and which attempts to elicit those phenomena that are easily reported by the patient and as easily recorded by the physician without making an additional demand of time or effort on his part, would be of practical use.

The Primary care Psychiatry Questionnaire (PPQ) developed and standardised in this study, attempts to overcome these difficulties. It can be easily adapted into the routine examination of the primary care physician and even the non-medical health worker, with very little training. The authors have often observed that psychiatric patients at the study centre often reported many of the symptoms scored on the PPQ spontaneously as presenting complaints. In such instances, screening can be effected at the start of the medical encounter itself. In a previous study by the authors (to be published) on the reason for medical consultation,—the presenting complaint—of general hospital outpatients, it was seen that psychiatric patients more often presented with a non-specific complaint and it was seen that such a presenting complaint can be used to identify psychiatric cases at a screening with high degree of specificity (91%) but low sensitivity (50%). This present study, as an extension of the previous one, found that presence of several such non-specific symptoms can be used to screen psychiatric patients with a good degree of specificity as well as sensitivity.

In adapting the PPQ to clinical practice, the degree of 'overinclusion' (high false +ves) or 'selectivity' (low false +ves) of the instrument will depend upon the cut-off score adopted. A low cut off score will yield the former result and high cut off score the

latter. The cut-off score chosen can also be different depending on the size of the population studied, the purpose of screening and the availability of psychiatric services. When psychiatric services available are good, and there is a need to thoroughly screen a given population, a low cut-off score, say 2/3, can be used. When there are meagre sources available for psychiatric management and the population size is very large, a higher cut-off score, say 5/6, can be used so that only the most probable cases will be selected.

The PPQ, by its very content, seems to have a limitation in identifying minor emotional disorders of an acute nature, i.e., less than 3 months. However it appears possible that non-psychotic morbidity in primary care is generally of a chronic nature (3 months or longer), as it was observed in this study that the PPQ has been able to identify most of the cases, though it requires the symptoms to be present for a period of at least 3 months. Application of the PPQ to screen major psychotic mental morbidity needs testing though it is possible that such patients will more often present with specific psychiatric symptoms unlike the non-psychotic patients. The applicability of this screening method in field surveys on non-clinical population needs examination because of difference the prevalence rates of mental morbidity and that of non-specific symptoms as such in them when compared to the clinical population.

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