

Psychiatric Morbidity in Orthopaedic Outpatients

Volume: 06 Issue: 01 January 1988 Page: 23-26

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Abstract

Psychiatric morbidity in the orthopaedic outpatients of a general hospital was studied using a short 5 item version of the General Health Questionnaire (GHQ). Forty percent of the subjects were identified as having recognisable psychiatric illness. Psychiatric morbidity was not related to age, sex, marital status, the duration of orthopaedic illness or the orthopaedic diagnosis. With respect to the relationship between psychiatric symptoms and orthopaedic illness, the psychiatric symptoms preceded the orthopaedic illness in 45%, both occurred simultaneously in 33% while in 22% of the cases the psychiatric symptoms followed the orthopaedic illness.

Key words -

**Psychiatric morbidity,
Orthopaedic outpatients**

It is common experience of orthopaedic surgeons that a considerable proportion of their patients have symptoms for which there is no adequate organic cause. Most orthopaedic surgeons call it "functional" or "functional overlays". Studies from the west [1], [2], [3] have shown that surgical patients are subject to symptoms of anxiety and distress and that such symptoms do indeed influence recovery. It is logical to expect that orthopaedic patients too would be similarly subject to symptoms of anxiety and distress. Literature on psychiatric morbidity in orthopaedic patients is sparse. A few studies have addressed to psychiatric aspects of specific groups of patients like patients with low back pain [4], [5], [6]. However they do not throw light on the magnitude of psychiatric problems in orthopaedic patients at large.

The present study was aimed at estimating psychiatric morbidity in an orthopaedic outpatient clinic.

Material and Methods

This study was conducted in the out-patient services of a large general hospital attached to a medical college of Bangalore city. About 150 patients attend the outpatient every day, distributing themselves randomly among 6 orthopaedicians. A total of 302 consecutive adult patients seen by one orthopaedic surgeon were studied.

The screening tool used in the study was the General Health Questionnaire (GHQ) [7]. A short 5 item version of the GHQ was used for the present survey. The GHQ-5 was evaluated for its validity in a recent study by Shamsundar et al [8]. In a sample of relatives of psychiatric patients, the GHQ-5 was found to have a sensitivity of 86%, specificity of 89% and an over-all misclassification rate of 13% with a cutting point of $\frac{1}{2}$ i.e., positive response to two or more of these 5 questions indicates probable psychiatric morbidity. The GHQ-5 has been successfully used to assess psychiatric morbidity in medical outpatients by Sriram et al [9]. These 5 questions (appendix-I) pertain to psychiatric symptoms. All the outpatients in the age group of 16-60 consulting one orthopaedic surgeon were routinely administered the GHQ-5 by the principal investigator who was blind to the orthopaedic assessment and diagnosis. Whenever the questions were answered positively, the duration of the symptoms was also recorded. The investigator later entered the orthopaedic diagnosis in the proforma used to collect the data. The study was conducted over a 4 month period. Minimal additional data like age, sex, educational and occupational status and duration of orthopaedic illness was recorded.

Results

Of the 302 subjects screened, 124 (41%) were identified as probable psychiatric cases, responding positively to two or more of the 5 questions. Taking the sensitivity and specificity of the GHQ-5 from the earlier study of Shamsundar et al [8] and applying it to the present sample of high scorers using equation (1) for calculating the psychiatric morbidity [7] the figure obtained was 40%.

$$P = \%HS - \%fp / s - fp - (1)$$

where % HS=Percentage with high scores. P=Prevalence. fp=false positive rate (=100 - Specificity/100) and s=Sensitivity rate (=sensitivity/100).

The psychiatric morbidity was not related to age, sex, marital status, the urban or rural background of the subjects, the duration of orthopaedic illness or the orthopaedic diagnosis. The distribution, of the 302 orthopaedic patients as per the orthopaedic diagnosis was as follows : Injuries and inflammations - 191 (63%); degenerative disorders - 32 (11%); infections - 8 (3%); Dislocations - 6(2%); congenital disorders - 4 (1%); tumours - 3 (1%); 'not yet diagnosed'(NYD) - 58 (19%). The cases in the NYD category presented with the symptom of pain in different regions (low back pain - 35, neck pain - 11, other pains - 12). Twenty-eight per cent of the NYD patients were high scores on the GHQ-5.

Among the GHQ high scorers with a definite orthopaedic illness, an interesting association was noticed with regard to the temporal relationship between psychiatric symptoms and orthopaedic illness. In 22% of the cases the orthopaedic illness antedated the psychiatric symptoms. In 33% of the cases, the orthopaedic and psychiatric symptoms occurred together. In the remaining 45% of the cases the orthopaedic illness occurred after the onset of psychiatric symptoms.

Discussion

A two-stage screening procedure is the usual method of estimating morbidity when a screening tool like the GHQ is used [7]. However we did not go ahead with a detailed psychiatric interview after the first stage procedure since the purpose of the investigation was to use a screening device that would not interfere with the busy out patient services and at the same time would provide adequate information about the extent of psychiatric morbidity. In this respect, the GHQ-5 was found to be very useful.

The psychiatric morbidity figure of 40% in an orthopaedic outpatient is very high and merits attention regarding its understanding and management. Many orthopaedic conditions cause prolonged disablement. The association between physical illness and psychiatry morbidity is well known [10]. Several factors have been identified which enhance the likelihood of psychiatric morbidity in physically ill subjects. Some of these include the chronicity of the condition [11], the premorbid personality factors [12], compensation problems [13], the quality of patients' interpersonal relationships, the family members' reaction of patients illness, problems in the area of sex, economic problems and staff-patient relationships [10]. These factors are very much applicable to most orthopaedic conditions. Traumatic and inflammatory conditions may cause distress because of pain. Deformities may lower the patients' self esteem. Other disorders like caries of the spine may lead to prolonged bedridden state. In addition, most of these orthopaedic disorders lead to disruption in personal, social and occupational functioning causing much suffering to patients. All these facts highlight the need for orthopaedicians to include psychiatric aspects of management in their treatment package. Spending more time with the patient, providing psychological support, and prescribing psychotropic drugs where necessary, will relieve much distress.

The finding that 19% of the patients presented with the complaint of pain without any demonstrable cause raises doubts as to whether these patients were suffering from a primary psychiatric disorder. Pain as the predominant manifestation of psychiatric illness is well known [14], [15]. Maruta et al [5], noted that patients with low back pain were essentially suffering from psychiatric disorders. Orthopaedicians need to be aware of this "hidden psychiatric morbidity" a term coined by Goldberg [16] to the group of psychiatric patients consulting at non psychiatric services with physical complaints. Timely referral of these patients to psychiatric service will avoid unnecessary investigations and inappropriate treatment.

The temporal relationship between psychiatric symptoms and orthopaedic illness noted in the study leads to interesting speculations. In those patients whose psychiatric symptoms appeared after the orthopaedic symptoms, the psychiatric symptoms were more likely a sequel of orthopaedic suffering. In patients where both occurred together, the psychiatric symptoms possibly reflect the immediate reactions of patients to the orthopaedic trauma. In the remaining group where psychiatric symptoms preceded orthopaedic symptoms a possible causal relationship exists. A classical example of such a causal relationship is the phenomenon of "accident proneness"

Overall, the findings of the present study highlight the need for orthopaedic postgraduates and surgeons to have adequate orientation training in psychiatry. The existing training in psychiatry for medical undergraduates also needs to be upgraded. Clinical liaison between orthopaedic and psychiatric services in every general hospital setting seems essential.

Conclusions

- i. A sizeable percentage of patients attending orthopaedic services have recognisable psychiatric morbidity.
- ii. There is a need for orientation training of orthopaedicians in psychiatry and for liaison between orthopaedic and psychiatric services.
- ii. Further research in this area is necessary and should address the following questions :
 - (a) which orthopaedic conditions are more likely to be associated with psychiatric morbidity?
 - (b) what is the nature of outcome of patients with orthopaedic and psychiatric illness as compared with orthopaedic condition only ?

Answers to the above questions will throw light on the need for psychiatric intervention in these subjects.

Appendix - I

(Note : The numeral on the left indicates the serial number in the 60-term GHQ)

14. Have you recently lost much sleep over worry? 0=not at all; 0=No more than usual; 1=rather more than usual; 1=much more than usual.
39. Have you recently felt constantly under strain ? 0=not at all; 0=No more than usual; 1=rather more than usual; 1=much more than usual.
42. Have you recently been able to enjoy your normal day-to-day activities? 0=more so than usual; 0=same as usual; 1=less than usual; 1=much more than usual.
49. Have you recently been feeling unhappy and depressed? 0=not at all; 0=No more than usual; 1=rather more than usual; 1=much more than usual.
54. Have you recently been feeling reasonably happy all things considered? 0=more so than usual; 0=about the same as usual; 1=less so than usual; 1=much less than usual.

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