

STANDARDISATION OF HINDI VERSION OF GOLDBERG'S GENERAL HEALTH QUESTIONNAIRE¹

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SUMMARY

Goldberg's GHQ was translated into Hindi. An emphasis was made to have the language of common use. The reliability of GHQ Hindi version (GHQ-H) was tested by translation - retranslation method and split-half method using the scores of 500 patients attending psychiatric out-patient department and 500 normal subjects. The tool was found to be sensitive and reliable. The tool differentiates normal population (mean score 4.9) from the patient population (mean score 30.64) statistically ($p < 0.01$) indicating a high validity. Details of methodology are described and its subsequent use is advocated.

Introduction

Goldberg's 60-item General Health Questionnaire is one of the best screening devices available so far for identifying psychiatric cases in population. The questionnaire has been proved to be helpful in the identification of patients with minor psychiatric illnesses and also serves the epidemiologists as a screening device. The questionnaire has been used by several researchers for case detection and was found to be quite effective and a reliable measure.

The optimum threshold for case detection in a general practice was found to be a score of 12 or more by Goldberg. Thus a person scoring 12 or more is a 'probable case' and that scoring 11 or less is a 'probable normal'.

G.H.Q. Scoring Method

Item	0	0	1	1
Have you recently been feeling perfectly well in good health	Better than usual	Same as usual	Worse than usual	Much more worse than usual

The original questionnaire is in English and has been standardized on British populations. The questionnaire in its original form was used in Indian setting by Prema (1978) to find out psychiatric morbidity in adolescents with a cutting score of 13 and by Chandra Shekhar et al. (1980) on post-graduate and research students with original cutting scores and found it to be of the same efficiency as claimed by Goldberg (1976).

The authors, while using the original questionnaire with their patients, experienced a lot of difficulty, as most patients did not know English and even those who knew it felt difficulty in answering some of the questions. Therefore, it was decided that a Hindi translation of this tool be prepared and standardized for use in the Hindi speaking belt of the country.

The present work was carried out with the following aims:

1. To prepare a Hindi version of the Goldberg's General Health Questionnaire.

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2. To establish the reliability and validity of the Hindi version of the GHQ.

Material and Methods

Preparation of the Hindi version of the GHQ:

The original 60 item GHQ (Goldberg 1976) was translated in Hindi by the first author and independently by two professors of Hindi in the University of Rajasthan. These translations were pooled together and a final version was prepared. Real meaning of the question was given more emphasis than word to word translation. This Hindi version was then retranslated into English. The translation retranslation reliability was found to be satisfactory when two English versions were compared. This Hindi version was then used for the present study.

Sample of study:

A. Experimental group included 500 Hindi speaking consecutive patients attending outpatient department at psychiatric centre, Jaipur, on two random days of the week, who could read and understand Hindi.

The patient population comprised of all categories of psychiatric disorders. Excited, withdrawn and psychotic patients, who were disturbed, where administration of the tool was not possible due to psychopathology were not included in the study. However, those psychotic patients and depressed patients who co-operated to fillup the questionnaire were included in the study.

B. Control group comprised of 500 normal subjects, relatives of the psychiatric patients who did not report of suffering from any physical or psychiatric ailment and where need for further clinical examination was not felt and who could read and understand Hindi.

The questionnaire was administered

in one to one setting to all the patients and controls and data was analysed using appropriate statistics.

Results

Table 1
Age distribution

Age in Years	Patient Population (N = 500)	Normal Population (N = 500)	Total (N = 1000)
21 - 30	210 (42%)	206 (41.2%)	416
31 - 40	150 (30%)	147 (29.4%)	297
41 - 50	88 (17.6%)	92 (18.4%)	180
51 - 60	52 (10.4%)	55 (11%)	107

Table 2
Sex distribution

Sex	Patients (N = 500)	Normal (N = 500)	Total (N = 1000)
Male	288 (57.6%)	315 (63%)	603
Female	212 (42.4%)	185 (37%)	397

Table 3
Literacy status

Literacy	Patients (N = 500)	Normal (N = 500)	Total (N = 1000)
Low-Literate (Primary)	81 (16.2%)	77 (16.4%)	158
Moderately Literate (Secondary)	286 (57.2%)	281 (56.2%)	567
Highly literate (Degree and above)	133 (26.6%)	142 (28.4%)	275

Table 4
Distribution according to domicile

Urban	396 (79.2%)	398 (79.6%)	794
Rural	104 (20.8%)	102 (20.4%)	206

Table 5
Significance of difference in GHQ scores of two groups

Population	N	Mean	SD	df	t
Patient	500	30.64	15.8894	998	35.961*
Normal	500	4.906	1.92		

* P < .01

Table 6
Distribution of patients according to major diagnostic categories

Diagnosis	N	Percentage	Mean GHQ Scores
Neurosis	222	44.4 %	35.83
Psychosis	117	23.4 %	32.35
Affective Disorders	161	32.2 %	27.96

patient population and 0.73 for normal subjects, indicating that the instrument is reliable. It detected only 2.66% false positive cases (mean GHQ score 10.32) and no 'false negative' case.

Table 5 shows mean and standard deviation of GHQ scores of patient and normal population. It is evident from

Table 7
Distribution of patients according to clinical diagnosis

Clinical Diagnosis	N	Percentage	Mean GHQ Score
Depressive Neurosis	95	19%	40.42
Anxiety Neurosis	63	12.6%	37.36
Conversion Reaction	38	7.6%	38.8
Involitional Depression	8	1.6%	32.0
Obsessive Compulsive Neurosis	18	3.6%	31.12
Endogeneous Depression	115	22.4%	37.04
Hypomania	46	9.8%	18.82
Schizophrenia	117	23.4%	32.35

Discussion

Tables 1 to 4 reveal the general characteristics of the patient and normal population. It is observed that age range in both the groups was from 20 years to 60 years with maximum numbers in age range of 21 years to 40 years and a mean age of 30.5 years. As regards sex and domicile, there was no difference between the two groups. Most of the subjects were moderately literate.

Reliability of the questionnaire was tested by 2 methods.

1. Translation-Retranslation reliability of the questionnaire as described earlier was found to be 96%.
2. By split half method, using the scores of patients and normal population and comparing the scores of first 30 items and last 30 items, by 'Pearson product moment Correlation' formula the correlation was found to be 0.78 for

the results that the mean score of patient population is much higher (mean score 30.64) than the normal population (mean value 4.9) and it is statistically significant at .01 level indicating that the test differentiates patient population from normal subjects quite effectively.

The above findings indicate that the test effectively discriminates patient population from the normal population and it is also concluded that individuals having score of 7 and below can be taken as "Probable normals", scores from 8 to 15 as "Probable cases" and more than 15 as "definite cases".

An attempt at clinical diagnosis of patient population having GHQ scores more than 7 reveals that most of these patients suffer from different psychiatric disorders. The diagnostic break up is illustrated in Table 7. When major diagnostic categories were taken into account (Table 6) it was

found that 44.4% had neurosis and 32.2% were detected as cases of affective disorders.

Conclusion

The observations of the present study indicate that Hindi version of GHQ, is quite sensitive, reliable and valid instrument for screening psychiatric patients in O.P.D. setting as well as population surveys.

The statistics of large sample we have studied shows that cut off score for 'definite psychiatric' case is 16, meaning thereby that those having a score of 15 and above are 'definite psychiatric' cases, those scoring from 8 to 15 are 'probable psychiatric' cases and need to be carefully evaluated. Among these patients there are 2.66% 'false positive' cases and there are no 'false negative' cases in those scoring 7 and below, which means that if we take 8 as the cut off score there are 2.66% chances of having a false positive case and if we take 15 as cut off score there are no chances of a 'false positive' case. The authors suggest that while using the tool for detecting psychiatric cases in general practice cut-off score of 8 may be used in order not to miss any psychiatric case. For research if one wants to have

GHQ scores alone for inclusion criterion a score of 15 should be used as a cut-off. Further it has been used for three ongoing research projects in our department.

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