

Symptoms of Emotional Distress in a Family Planning Service: Stability over a Four-Week Period

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Summary: The 25-item Hopkins Symptom Checklist (HSCL-25) was used on two occasions four weeks apart to identify self-reported symptoms of anxiety and depression in patients attending a family planning service. Only 28 per cent of patients classified as anxious to start with remained so four weeks later, but 62 per cent of those with high depression scores and 74 per cent of those with high depression and high anxiety scores maintained significant levels of depression. The implications of these findings for routine screening are discussed.

Patient self-report scales such as the Hopkins Symptom Checklist (HSCL) (Derogatis *et al.*, 1974) and the General Health Questionnaire (GHQ) (Goldberg, 1972) have been employed to obtain information on symptoms of emotional distress in normal populations (Derogatis *et al.*, 1974; Derogatis, 1977), psychiatric patients (Derogatis *et al.*, 1974; Lipman *et al.*, 1968) and medical patients (Goldberg *et al.*, 1976; Meyer *et al.*, 1978; Rickels *et al.*, 1976; Johnstone and Goldberg, 1976). These scales have the advantage of being convenient and easy to administer. They provide the opportunity to screen large groups of patients in a busy medical setting where it would be impractical to perform more extensive evaluations of emotional symptomatology.

The HSCL elicits information about common psychoneurotic complaints. It has been proved to have considerable reliability and validity as a measure of emotional symptoms, and is able accurately to differentiate between normal subjects and neurotic patient populations (Derogatis *et al.*, 1974; Rickels *et al.*, 1976).

The authors have used several versions of the HSCL to assess emotional symptomatology in patients attending the Family Planning Service (FPS) of the Hospital of the University of Pennsylvania (HUP). In an initial survey of 329 patients, conducted in 1974 with the HSCL-90 (Derogatis, 1977), 22 per cent of the survey patients had high ratings for depression with or without anxiety and an additional seven per cent had high ratings for anxiety alone (Winokur *et al.*, 1979).

Little systematic attention has been given to the stability of the symptoms detected by patient self-report rating scales. Symptomatology assessed on one occasion may indicate transient problems rather than

long lasting psychopathology, and may thus overestimate the incidence of the latter. On the other hand, patients who report high levels of psychological distress over a four-week period are more likely to be suffering chronically and may need further evaluation and, when indicated, treatment for their problems.

The present study was designed to assess the stability of emotional symptomatology in a group of FPS patients evaluated during an initial screening survey and followed up four weeks later.

Method

All patients attending the FPS during two randomly selected half-day sessions per week were asked to complete a personal information form and the HSCL-25. The HSCL-25 is a shorter version of the HSCL and contains the 10 items of the HSCL-58 anxiety cluster (suddenly scared for no reason; feeling fearful; faintness, dizziness, or weakness; nervousness or shakiness inside; heart pounding or racing; trembling; feeling tense or keyed up; headaches; spells of terror or panic; feeling restless, can't sit still) and the 13 items of the depression factor (feeling low in energy, slowed down; blaming yourself for things; crying easily; loss of sexual interest or pleasure; feeling hopeless about the future; feeling blue; feeling lonely; thoughts of ending your life; feeling of being trapped or caught; worrying too much about things; feeling no interest in things; feeling everything is an effort; feelings of worthlessness). It also contains two additional items, "poor appetite" and "difficulty falling asleep or staying asleep", contributing in this version to the depression factor score. Patients record their estimates of severity on a four-point scale ranging from "not at all" [1] to

“extremely” [4]. Responses are summed and divided by the number of answered items to generate an anxiety and a depression score ranging from 1 to 4.

The HSCL-25 was chosen because of its convenience in large-scale screening, since patients can easily complete the 25 items within five minutes, and because it provides information about the forms of psychopathology (anxiety and depression) which are most commonly encountered in non-psychiatric patient populations. In a large group of patients visiting their family doctor, Hesbacher *et al* (1980) compared scores on the HSCL-25 to a doctor's global assessment of psychological distress in the same patients. A concordance rate of 86.7 per cent was observed. Our research group administered both the HSCL-25 and the HSCL-80, which contains all items of the HSCL-25, to 75 symptomatic volunteers. The mean time interval between completion of the two versions was three weeks. We obtained correlation coefficients of .79 for anxiety and .73 for depression (Rickels, unpublished data).

Only five per cent of patients approached in the present study refused to complete the HSCL-25 and data were obtained from the total of 542 patients. Patients with scores above 1.75 on the anxiety and/or depression factors were classified as symptomatic. This cut-off point is consistent with data obtained from a random general population sample of non-institutionalized adults in Oakland, California (Derogatis *et al*, 1974). A score of 1.75 is more than two standard deviations higher than scores obtained in the Oakland survey, which used 735 household subjects.

TABLE I
Demographic data for family planning service (FPS) patients
(N=542)*

Age	
Mean	23.7 years
Standard deviation	5.4 years
Race	
White	34
Black, other	501
Marital status	
Single	328
Married	125
Divorced, separated, other	73
Education	
Beyond high school	88
High school graduate	318
Did not complete high school	105

*N varies slightly in some measures

TABLE II
Distribution of high and low ratings of anxiety and depression
when first tested and at four-week follow up

4 weeks	First test			
	A+D- (N=25)	A-D+ (N=34)	A+D+ (N=54)	A-D- (N=199)
A+D-	2 (8%)	0	1 (2%)	9 (5%)
A-D+	1 (4%)	15 (44%)	15 (28%)	16 (8%)
A+D+	5 (20%)	6 (18%)	25 (46%)	8 (4%)
A-D-	17 (68%)	13 (38%)	13 (24%)	166 (83%)

A- anxiety scores \leq 1.75
A+ anxiety scores $>$ 1.75
D- depression scores \leq 1.75
D+ depression scores $>$ 1.75

TABLE III
HSCL-25 total score when first tested and at four-week
follow-up

4 weeks	First test		
	\leq 1.75 (N=223)	1.76 - 2.0 (N=43)	2.01 - 4.0 (N=46)
\leq 1.75	194 (87%)	23 (53%)	13 (28%)
$>$ 1.75	29 (13%)	20 (47%)	33 (72%)

$\chi^2 = 78.43, 2 \text{ df}, P < .001.$

Four weeks after the patients completed the initial HSCL-25 all 542 were sent another HSCL-25, and 312 (58 per cent) of them returned it completed. The 312 respondents at four weeks did not differ from the nonrespondent group in terms of age, menstrual cycle phase, initial HSCL anxiety and depression factors or total initial score.

The demographic characteristics of the FPS patients included in this survey (542 patients) are given in Table I. The patient group was comprised primarily of young, black women who were single, divorced or separated, about 80 per cent of whom had completed high school, and only one per cent of whom were on welfare. Thirty-eight per cent were housewives, and most of the remainder were either students or employed in a clerical capacity. While the survey population was primarily black and of lower social class, it was neither an uneducated nor a welfare population.

Results

Emotional symptomatology at screening

One hundred and sixty-nine patients (31 per cent) had scores over 1.75 on the HSCL anxiety factor, depression factor or both at the initial visit, and they were therefore classified as symptomatic. Fifty-seven patients (11 per cent) scored above 1.75 on the depression factor alone, 38 (seven per cent) scored

above 1.75 on the anxiety factor alone, and 74 (14 per cent) were symptomatic on both factors.

Of the 312 subjects who returned the four-week follow-up questionnaire and were therefore available for follow-up evaluation, 107 (34 per cent) were classified as symptomatic at follow-up. This incidence is only slightly higher than the 31 per cent observed at the initial screening visit.

Stability of emotional symptomatology

Table II gives the distribution of symptomatic patients, cross-tabulated for screening and four-week follow-up. Interestingly, patients with high anxiety ratings initially were less likely to maintain their levels of symptomatology at follow-up than were patients with high depression ratings. Only 28 per cent of patients originally identified as anxious (A+ D-) were so classified four weeks later. This finding indicates that symptoms of anxiety assessed in routine surveys may reflect transient stress rather than continuing psychopathology. When anxiety was associated with symptoms of depression (A+ D+) a larger percentage of patients (48 per cent) maintained their high symptoms of anxiety at follow-up.

In contrast to anxious symptomatology, depressive symptomatology was more stable over the four-week period. Thus 62 per cent of patients with high depression at screening (A- D+) and 74 per cent with high depression and high anxiety at screening (A+ D+) maintained significant levels of depression four weeks later. Overall, 69 per cent of patients depressed to start with maintained their high levels of depressive symptomatology at four-week follow-up.

Stability of HSCL-25 total score ratings

The HSCL-25 Total Score combines ratings on the Anxiety and Depression Factors. At the start 226 patients had scores of 1.75 or less and thus were considered to be asymptomatic (Table III). The majority of these patients (87 per cent) remained asymptomatic at four week follow-up. Forty-six patients at the start had HSCL-25 Total Score ratings which were considered to be highly symptomatic, i.e. in excess of 2.0. Thirty-three of the patients in this group, almost three-quarters, remained highly symptomatic four weeks later. In total, 272 patients had HSCL-25 Total Scores which at the first evaluation were either clearly asymptomatic (≤ 1.75) or clearly symptomatic (> 2.0). At four-week follow-up 85 per cent of these patients maintained ratings which were consistent with their initial classifications.

A group of 43 patients demonstrated intermediate level HSCL-25 Total Score ratings (1.76-2.0). At four-week follow-up, these patients had variable ratings,

with 23 having scores of 1.75 or less and 20 scores above.

Discussion

This study provides further support for the value of the HSCL as a screening instrument to identify patients with high levels of emotional distress. The findings from the present survey with 542 patients closely approximate the results of an earlier survey in the FPS involving 329 patients (Winokur *et al*, 1979), although the latter used a different form of test (HSCL-90).

The central purpose of the present study was to examine the stability over a four-week period of symptoms detected with the HSCL-25. In recent years, attention has been paid in psychiatric diagnosis to the duration of symptoms of emotional distress as well as their severity. Duration is an essential factor in the diagnosis of major depressive disorder according to the Research Diagnostic Criteria (RDC) (Spitzer *et al*, 1977), and the Schedule of Affective Disorders and Schizophrenia (SADS) (Spitzer and Endicott, 1977), and it has also been incorporated into the criteria of the DSM-III (American Psychiatric Association, 1978). Most previous studies which attempted to assess the incidence of emotional distress in a general medical population (e.g. Goldberg and Blackwell, 1970) or a community (e.g. Weissman and Meyers, 1978) involved a single time-point evaluation.

The findings reported here indicate that the ratings of anxiety and depression obtained by the HSCL-25 tend to remain stable over a four-week period. Thus, 78 per cent of the patient population showed consistent ratings (asymptomatic or symptomatic) on the anxiety factor and 82 per cent on the depression factor. It should be noted that 58 per cent of those who were symptomatic on the anxiety factor became asymptomatic four weeks later, while only 10 per cent changed in the opposite direction. It might be expected that symptoms of anxiety would tend to be more transient than depressive symptoms. In addition, some patients may have been specifically anxious about their clinic visit when first screened and not later, thus accounting for a shift from symptomatic to asymptomatic. Of course, this interpretation must be supported by further research.

Ratings of depression showed greater stability, with 69 per cent of the patients remaining symptomatic at both checks, so that when used as a routine screening instrument in the FPS the HSCL-25 did not detect a high incidence of transient depressive symptomatology.

Some patients who remain symptomatic over a one-month period may be experiencing significant emotional distress and may benefit from further

evaluation. The HSCL-25 Total Score data suggest that the HSCL-25 may be effectively employed for routine screening of this distress in non-psychiatric patient populations. Three patient groups can be identified, with ratings of low (≤ 1.75), moderate (1.76-2.0) and high (> 2.0) symptomatology.

Patients in our low symptomatology group rarely developed symptoms of distress during the following four-week period, which suggests that this group did not require further assessment of their emotional status.

Of the patients who scored more than >2.0 on the HSCL-25 at the start of our survey 72 per cent remained highly symptomatic four weeks later, so when such a score is identified during routine screening further evaluation is indicated. These patients require to be followed closely and, when clinically indicated, treated.

Patients having intermediate HSCL-25 total scores (1.76 to 2.0) on initial screening represent an uncertain group, and should perhaps be re-evaluated periodically.

Barrett and Hurst (1982) have reported on repeated assessments with the HSCL in a group of outpatients with established psychiatric diagnoses. Two versions of the HSCL were completed at approximately four week intervals. Reductions in symptoms of both depression and anxiety were observed over this period. However, specific patient subgroups (those with major depressive disorder among depressed patients, and those with phobic anxiety disorder or mixed panic anxiety and phobic anxiety disorder among anxious patients) demonstrated the least change in symptom levels. There are significant methodological differences between the study of Barrett and Hurst and the present report. Nevertheless, one might speculate that the stability of depressive symptomatology in our subjects was accounted for by a high percentage of patients with major depressive disorder. Further studies are needed to examine this possibility.

Johnstone and Goldberg (1976) described the benefit of identifying psychiatric disorder in a medical patient population. In a private practice setting, doctors who were provided with information on emotional distress ratings in their patients were able to do further evaluation and to institute treatment when indicated. At one-year follow-up, patients whose emotional illness was revealed to the doctor showed significantly more improvement than did patients whose emotional distress remained hidden.

In summary, the HSCL-25 can be readily and conveniently administered to groups of non-psychiatric patients in a variety of medical settings. A hierarchy of ratings of emotional distress can be established, and a subgroup of patients identified who

require immediate, more extensive evaluation of their emotional distress symptoms or who would benefit from reassessment at a later time. By using the HSCL-25, it is possible to identify patients with previously unrecognized, clinically significant emotional distress. Since many of these patients will maintain high levels of symptomatology over a long period of time, symptom detection may lead to the initiation of appropriate therapy in some instances.

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