THE RELATIONSHIP BETWEEN SELF-REPORTED AND CLINICIAN RATED ASSESSMENT OF DEPRESSION IN CLINICALLY DEPRESSED PATIENTS

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ABSTRACT

Objective: The study examines the relationship between a clinician rated measure Hamilton Rating Depression Scale (HRSD) and indigenously developed self-reported Siddiqui-Shah Depression Scale (SSDS) in clinically depressed and matched control group.

Study Design: Correlational design.

Place and Duration of Study: Data was collected over a span of 6 month from Department of Psychiatry Pakistan Naval Ship (PNS) Shifa Karachi and Combined Military Hospital (CMH) Malir, Karachi

Material and Methods: A purposive sample of forty-seven patients from psychiatry department and thirty-six participants in the matched group were first screened on DSM-IV criteria independently by a psychologist, and then assessed on HRSD by the psychiatrist followed by assessment of depression on SSDS by the participants.

Results: SSDS has significant relationship with HRSD for both matched group (r=.74, p<.001) and depressed group (r=.38, p<.01). SSDS also indicates moderate sensitivity index (.79) and a significant specificity index (.89).

Conclusion: Self-report measure (SSDS) correlates significantly with clinician rated assessment measure (HRSD); it also demonstrates psychometric properties to be recommended for screening depression in general practice.

Keywords: Depression, Indigenous, Psychometrics, Self- report measures, SSDS.

INTRODUCTION

Depression is a frequently presented disorder in outpatient department. It has high association with increased medical utilization leading to significant economic consequences, both in terms of health care consumption and workdays lost[1]. The World Health Organization (WHO) report predicted that by the year 2020, depression will rank second (after heart disease), accounting for 15% of the disease burden in the world[2]. The statistics about depression clearly identify it as a major public health problem as about 6% of the population meets the criterion for major depressive or dysthymic disorder at any time[3]. The cultural stigma and the difficulties in detection and diagnosis also contribute to the widening gap between depression and the resources devoted to its treatment[4]. The challenge, therefore, is to train the health professionals to assess and treat depression, particularly those with limited experience. Realizing the dearth of locally developed scales for the assessment of depression, Siddiqui and Shah[5] developed a self- report depression scale: Siddiqui Shah Depression Scale (SSDS). It is indigenous as the items were generated empirically and assessed for its clinical significance.

SSDS has established concurrent validity with Zung Depression Scale (r = 0.55, p <.001[5] and against Self-Esteem Scale (r = -0.58, p<.01,[6]). SSDS has been extensively used in studies, for instance in clinical population[7] and for construct validation against Beck Depression Inventory[8]. Besides being frequently used in academic research projects it has also earned recognition from serious researchers (see for instance, Nausheen & Kamal 2007[9]; Aziz, Qureshi, Mughal, Afshan, 2009[10]); Perveen,

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Otho, Siddiqi, Hatcher & Rafique; 2010[11], Rizwan & Syed 2010[12]; Gul et al; 2011[13]). SSDS was also included in the compilation of Psychiatric Rating Scales in Urdu by Journal of Pakistan Psychiatric Society [14].

The present research further evaluated the efficacy of SSDS by examining its relationship with Hamilton Rating Scale for Depression (HRSD-21) in clinical settings which is a widely used instrument for the assessment of depression[15]. As SSDS is a self report measure whereas HRSD depends on clinician's interview, it would be pragmatic to evaluate the association between the two indices emerging from the patient and the expert. It is expected that the clinician with his training and understanding of the psychopathology would have accuracy in diagnosing depression using HRSD; however, if the self-report by patient on SSDS has moderate linear relationship with HRSD, it would build a case for using SSDS in busy clinics to screen depression.

MATERIAL AND METHODS

This correlational study was carried out in the Department of Psychiatry PNS Shifa Karachi and Combined Military Hospital Malir Cantt after the consent for participation from both groups. The purposive sampling procedure was used to select the sample. The criterion group (n= 47; M= 35, F= 12) included patients diagnosed with depression on DSM IV criteria; the matched group included (n=36 ; M=26, F= 10) participants similar in the profile (age, education and occupation)of patients and had no psychiatric history . Patients, who were on anti-depressant medication or had psychomotor symptoms, were excluded from the study. The psychiatrist evaluated them on HRSD and then participants filled the SSDS. Both the scales were continuous and the higher score indicated severity of depression.

Table-1: Correlation between the scores on HRSD and SSDS for patients with depression (n= 47) and matched group (n= 36).

Groups	Correlation	*p*
Depressed Group	0.38	.01
Matched Group	0.74	.001

Table showing positive linear relationship between HRSD & SSDS for depressed patients and non-depressed matched group

Table-2: Difference between mean scores on SSDS obtained by patients with depression and matched group.

Groups	n	M	SD	t	*p*
Depressed Group	47	48.23	16.61	9.23	.001
Matched Group	36	19.33	13.48		

Table reflects that even though matched non depressed group reports on SSDS some mild depression, they score significantly different from the depressed patients.

Table-3: Sensitivity Index and Positive Predictive Value of SSDS and HRSD for Depressed group (n=47)

	True Positive	False negative	Sensitivity	PPV
HRSD (score14 & above)	43	4	.91	1
SSDS (score37 & above)	37	10	.79	.90

Table shows that a clinician rated assessment measure (HRSD) is more sensitive and specific to depressive symptoms, however, despite the limitation of subjective appraisal the self-report measure (SSDS) sufficiently detects signs of depression and predicts depression with accuracy.

Table-4: Specificity Index and Negative Predictive Value of SSDS and HRSD (n=36).

	True negative	False positive	Specificity	NPV
HRSD (score 14 & above)	36	0	1	0.9
SSDS (score 37 & above)	32	4	.89	.76

Table shows that clinician rated assessment of depression in matched group was accurate whereas the self-report was less specific owing to subjective appraisal of depression lowering its robustness to exclude non cases.

The scale administration and other communication took place in Urdu. There were 15 patients who were not able to read and write, therefore, they were helped by the research assistant. The matched group was psycho educated to recognize signs of depression; whereas the clinically depressed patients who were there to receive psychiatric help were briefly counseled about their condition.

RESULTS

The scores were analyzed using computer software of Statistical Package for Social Sciences (SPSS version 17). The Hamilton Rating Scale for Depression, takes the score of 10-13 as mild depression; a score of 14-17 mild to moderate depression and more than 17 denotes moderate to severe depression[15]. SSDS is in Urdu with 36 items. There are four categories of response ranging from 0 to 3. The scale provides the cut off points (26, 37, 50) for the increasing severity of depression i.e. mild, moderate and severe[5]. The results show that the correlation between HRSD and SSDS for depressed patients and matched group are statistically significant (table-1). Both groups were different in their severity of depression on SSDS (table-2). The result demonstrates that SSDS has a sensitivity index of .79 as compared to .91 of HRSD (table 3). Moreover, SSDS has a specificity index of .89 as compared to 1 of HRSD (table-4). The positive predictive value of SSDS (.90) is heartening though a moderate negative predictive value is obtained (.76).

DISCUSSION

A patient is often considered ill equipped to provide details of his/her own illness. For psychiatric patients this issue assumes further significance as the true extent of their complaints require elaboration from other informants. The self report measures of psychological problems, therefore, face the question that to what extent one can rely on the responses of the patient. On the other hand the doctor patient ratio and the limitation of time advocate the use of self report measures to document and screen the symptoms. Our findings demonstrate that SSDS correlates well with the clinician's assessment of depression and has significant sensitivity (.79) and specificity index (.89). The predictive value of SSDS (.90) is promising, despite missing out some true positives as non-cases; which could be due to the response style and social desirability factors. The moderate negative predictive value (.76) of SSDS could also be due to depression being a continuous variable and may reflect it's presence at subclinical level.

The items of SSDS reflect impact of culture in expression of symptoms (e.g. My prayers are not heard/accepted "meri duaain qubool nahi hoteen" or I am being punished for my deeds" mujhe apnai kiye ki saza mil rahi hai"). It is known that religious beliefs and stigma attached to mental illness have impact on depressive symptoms[16]. It is this influence of social and cultural contexts in illness behavior that highlights the need for a culture specific indigenous screening instrument. Though Minhas et. al. reported robust psychometric properties of Self Reporting Questionnaire (SRQ), yet they critiqued the translations of scales developed in the West[17]. As expression of illness is rooted in cultural permissiveness and linguistic flexibility, we do not find an open expression of reduced sexual desire or suicidal ideation in depressed patient presenting themselves at clinics; instead they may have more somatic expression of distress with loss of interest and would say that they pray that God ends their lives. This understanding resulted in generating an indigenous item pool for SSDS tapping the cultural beliefs and values in expressing symptoms pertaining to somatic, cognitive and affective attributes of depression[5]; providing items that are easier to understand and familiar to patient experience.

The HRSD- a robust assessment measure-guides the clinician's evaluation of the depressive symptoms. The SSDS on the other hand is a self-report scale, depending on the patient's perception, motivation and understanding of his/her experiential, cognitive and affective state. One can say HRSD reflects an expert's assessment whereas SSDS taps the understanding and awareness of a naïve; therefore, the statistics reflect this difference. Studies opting for adaptation and validation of western scales report a varying

range of the indices of sensitivity and specificity. Minhas reported a sensitivity of 93% and specificity of 88% for translated version of GHQ[18]. The translated version of SRQ has sensitivity of 63% and specificity of 77 %[17] and Agha Khan University Anxiety and Depression Scale, a specificity of 81% and a sensitivity of 74%[19]. It is pertinent; therefore, that despite depending on the subjective reporting of depression, SSDS has a significant index of specificity and sensitivity.

The SSDS provides good-enough statistical indices to be recommended for screening of depression. Self-report screening instruments are generally preferred[20], as they do not require clinician's time and can also document the treatment effect and remission in depressed patients.

CONFLICT OF INTEREST

This study has no conflict of interest to declare. No funding was received from any agency or institution.

AUTHORS CONTRIBUTION

Rashid Qayyum, design and data collection, Salma Siddiqui, analysis and interpretation

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