

## Disability assessment in mental illnesses using Indian Disability Evaluation Assessment Scale (IDEAS)

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Received September 10, 2003

**Background & objectives:** Psychiatric disorders cause disability in individuals and pose significant burden on their families. In most of the cases residual disability and poor quality of life continue even after disability evaluation in patients with chronic mental illness in very important. The present study was undertaken to assess and compare the disability in patients with schizophrenia and obsessive-compulsive disorder (OCD) using Indian Disability Evaluation Assessment Scale (IDEAS).

**Methods:** Patients diagnosed to have schizophrenia and OCD with mild severity of illness were included in the study. Indian Disability Evaluation Assessment Scale (IDEAS) was applied. Disability was assessed in these patients on all domains of IDEAS.

**Results:** Majority of the patients with schizophrenia were from rural areas whereas most of the patients with OCD were from urban background. There was comparable disability in the patients with schizophrenia with duration of illness in the range of 2-5 yr and >5 yr. Significant disability in work and global score was seen in patients of obsessive-compulsive disorder with duration of illness >5 yr. Patients with schizophrenia had significantly higher disability in all domains than patients with OCD.

**Interpretation & conclusion:** Schizophrenia causes greater disability than obsessive-compulsive disorder in patients. These illnesses affect all areas of daily functioning leading to greater disability, and thus increasing the burden on the family, pose greater challenge for the rehabilitation of patients and their inclusion in the mainstream of the family and society. Further studies on a larger sample need to be done to confirm the finding.

**Key words** Disability - IDEAS - obsessive-compulsive disorder - schizophrenia

Psychiatric disorders are one of the most common and prevalent illnesses that widely affect world population accounting for nearly 31 per cent of world's disability. Five of the 10 leading causes of disability worldwide are in the category of mental disorders: major depression, alcohol use, bipolar affective

disorder, schizophrenia and obsessive-compulsive disorder<sup>1</sup>. Psychiatric illnesses like schizophrenia, bipolar affective disorder and obsessive-compulsive disorder, impact negatively on the academic, occupational, social and family functioning of the patients.

It has been demonstrated that in the patients of mood and anxiety disorders, residual disability and poor quality of life continue even after completion of symptom-linked treatment<sup>2,3</sup>. There is amelioration of symptoms with pharmacotherapy, but social functioning and quality of life improve only with concerted efforts at rehabilitation that take longer intervals of time<sup>4</sup>.

Research initiatives in the area of assessment of disability in patients with schizophrenia in India have focused attention on two important issues: firstly, development or modification of scales for assessment of disability and secondly, disability evaluation in persons suffering from chronic mental illnesses. Disability has been assessed in psychiatric patients in different settings such as in hospital-based sample<sup>5,6</sup> in community<sup>7,8</sup>, and also in follow-up studies<sup>9-11</sup>.

We undertook this study to assess, quantify and compare the disability using Indian Disability Evaluation Assessment Scale (IDEAS) in patients suffering from schizophrenia and obsessive-compulsive disorder attending a tertiary care hospital in north India. This study has been carried out as an attempt to assess impact of mental illnesses on different domains of patients life. This would help to understand, plan and expect accordingly and appropriately as far as their management and rehabilitation is concerned. Schizophrenia being a psychotic disorder and obsessive-compulsive disorder being a neurotic disorder, were chosen so as to compare their disabling potential.

### Material & Methods

Patients attending outpatient section of Department of Psychiatry, King George Medical University, Lucknow, India, during the period between August 1, and October 31, 2001, were screened to include in this cross-sectional study. Those diagnosed to be suffering from schizophrenia and obsessive-compulsive disorder by ICD-10 DCR<sup>12</sup>, with duration of illness of minimum two years without any exacerbation or hospitalization, and accompanied with a primary care giver were assessed further. Patients having only mild severity of illness on Clinical Global Impression<sup>13</sup> Scale were included so that it could be assessed whether the instrument -

IDEAS<sup>14</sup> can pick up disability in illness of mild severity. All patients with co-morbid medical and psychiatric illness, likely to contribute in disability, were excluded. Informed consent was taken from the primary care giver. The target was to include about 30 consecutive patients for each illness. IDEAS was applied in all the patients who fulfilled the selection criteria to measure the disability.

IDEAS is best suited for the purpose of measuring and certifying disability. It has four items: Self Care, Interpersonal Activities (Social Relationships), Communication and Understanding, and Work. Each item is scored between 0-4, *i.e.*, from no to profound disability, adding scores on 4 items gives the 'total disability score'. Global disability score is calculated by adding the 'total disability score' and MI2Y score (months in two years - a score ranging between 1 and 4, depending on the number of months in the last two years the patient exhibited symptoms). Global disability score of 0 (*i.e.*, 0%) corresponds to 'no disability', a score between 1-7 (*i.e.*, <40%) corresponds to 'mild disability', and a score of 8 and above corresponds to >40 per cent corresponds to moderate to profound disability. The Rehabilitation Committee of Indian Psychiatric Society developed this scale<sup>13</sup>. It has been tested at various centres. The alpha value was 0.8682, indicating good internal consistency between the items. It has good criterion validity and at face value, the instrument appeared to be measuring the desired qualities. Criterion validity was established by comparing IDEAS with SAPD (Schedule for the Assessment of Psychiatric Disability) which has been standardized in India.

Students 't' test was applied to compare the disability in patients with schizophrenia and OCD.

### Results

A total of 57 patients of (30 with schizophrenia and 27 with obsessive-compulsive disorder) were included in this study. Of the 30 patients of obsessive-compulsive disorder initially included, 3 patients were excluded as they were found to have conditions likely to cause disability *per se* (one had a seizure disorder, another had a history of intermittent excessive alcohol abuse, and the third one developed severe anxiety symptoms).

**Table I.** Socio-demographic characteristics of patients with schizophrenia and obsessive-compulsive disorder

		Schizophrenia No. (%)	Obsessive-compulsive disorder No. (%)
Age groups (yr)	16-30	11 (36.7)	14 (51.9)
	31-45	12 (40.0)	11 (40.7)
	46-50	7 (23.3)	2 (7.4)
Gender	Male	22 (73.3)	15 (55.6)
	Female	8 (26.7)	12 (44.4)
Domicile	Urban	11 (36.7)	18 (66.7)
	Rural	19 (63.3)	9 (33.3)
Religion	Hindu	25 (83.3)	21 (77.8)
	Muslim	5 (16.7)	6 (22.2)

**Table II.** Assessment on various items of IDEAS in patients of schizophrenia and obsessive-compulsive disorder between duration of illness 2-5 yr and >5 yr

Duration of illness (yr)	Self care	Interpersonal activities	Communication and understanding	Work	Global disability score
Schizophrenia:					
2-5 (N=11)	2.27 ± 1.10	2.00 ± 0.77	2.45 ± 0.93	3.00 ± 1.18	11.55 ± 2.77
>5 (N=19)	1.95 ± 1.03	2.05 ± 0.78	2.21 ± 0.79	3.11 ± 1.10	12.21 ± 2.78
Obsessive-compulsive disorder:					
2-5 (N=8)	0.2 ± 0.1 <sup>+</sup>	0.63 ± 0.52 <sup>+</sup>	0.75 ± 0.89 <sup>+</sup>	0.50 ± 0.53 <sup>+</sup>	3.13 ± 0.83 <sup>+</sup>
>5 (N=19)	0.58 ± 0.96 <sup>###</sup>	1.16 ± 0.9 <sup>##</sup>	1.52 ± 1.02 <sup>#</sup>	1.79 ± 1.18 <sup>###</sup>	7.95 ± 3.34 <sup>####</sup>

Values are mean±SD  
 $P < 0.01$ ,  $** < 0.001$  compared to those with OCD (2-5 yr duration)  
<sup>+</sup> $P < 0.001$  compared to patients with schizophrenia with 2-5 yr duration of illness  
<sup>#</sup> $P < 0.05$ , <sup>##</sup> $< 0.01$ , <sup>###</sup> $< 0.001$  compared to patients with schizophrenia with duration of illness >5 yr

Majority of patients were males. Most of the patients were from rural background in schizophrenia group and majority were from urban background in obsessive-compulsive disorder group. Most of them were Hindus (Table I).

Mean age of patients suffering from schizophrenia was 35.7±9.79 yr and that of patients with OCD was 30.85±8.63 yr. Duration of illness (2-5 yr or >5 yr) showed no statistically significant effect on items of IDEAS and global disability score in patients with schizophrenia. However, there was comparable disability in both the groups. In patients with OCD, significantly higher mean score was seen in area of work ( $P < 0.01$ ) and in global disability score

( $P < 0.001$ ) in patients with duration of illness >5 yr than those with 2-5 yr (Table II).

When patients with schizophrenia and OCD with duration of illness between 2-5 yr and >5 yr were compared, statistically significant differences were seen in the areas of self-care, interpersonal activities, communication and understanding, work and global disability score. There was greater disability in each area in patients with schizophrenia (Table II).

Of the 30 patients with schizophrenia, 21 had moderate disability and 8 had severe disability, while majority of patients of obsessive compulsive disorder (18 of 27) had mild disability on IDEAS, only 9 had moderate disability.

## Discussion

Many patients with OCD were from urban background in our study. The poor representation of rural population may be due to the inability to understand this being an illness. It has been shown that obsessive-compulsive disorder produces a significant impact on daily living<sup>14,15</sup>.

Most of the patients with schizophrenia having duration of illness between 2-5 yr had moderate to severe disability. There was no increase in the disability with longer duration of illness. Hence, it could be possibly inferred that disabling potential of illnesses like schizophrenia unraveled itself to its full by 2 yr of active illness. The resulting disability, however, remained stable thereafter irrespective of the duration of illness. Marneros *et al*<sup>16</sup>, reported that schizophrenia caused persistent alterations in social life like social and occupational drift, premature retirement, and inability to achieve the expected social development.

In our study, there was more work impairment in patients with OCD with duration of illness more than 5 yr than in patients with duration of illness between 2-5 yr; this however, needs confirmation in a larger sample. The factors responsible for deterioration in the working ability of patients with obsessive-compulsive disorder need to be explored in further studies. The disability produced in areas of self-care, interpersonal activities and communication and understanding remained stable over the time. Koran *et al*<sup>17</sup> reported that 22 per cent of OCD patients were unemployed, however, Khanna *et al*<sup>18</sup> did not substantiate the same findings. Notably these two studies did not include the patients with duration of illness more than 2 yr.

When patients with schizophrenia and OCD were compared with matched duration of illness, significantly greater disability was seen in the patients with schizophrenia in the areas of self-care, interpersonal activities, communication and understanding, work and global disability score. This is in contrast to findings reported by Bobes *et al*<sup>19</sup> who found greater level of disability in patients with obsessive-compulsive disorder than in schizophrenia in the area of social and occupational functioning.

Other workers<sup>20,21</sup> also reported that patients with OCD had greater disruption on their careers and relationships with family and friends. However, in these studies<sup>19-21</sup>, no attempt was made to match the patients on the basis of duration of illness.

Because of the disability caused in the patients with schizophrenia and obsessive-compulsive disorder, psychosocial rehabilitation for these patients should become a major component of treatment programme for this population. This was so even when patients with illness of mild severity (on Clinical Global Impression Scale) only were included in our study. It appears that the instrument IDEAS is sensitive enough to pick up disability even at mild severity of illness. However, results of our study should be interpreted with caution. This was a cross-sectional small sample study, based on exclusively hospital-based outpatient sample, and therefore, is not likely to be representative sample of patients in community. Moreover, the pre-morbid assessment using standardized instruments was not carried out. The relationship between disability and socio-demographic variables like family structure, family income *etc.*, needs to be evaluated in further studies.

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