

A Study of Evaluation of Disability across Five Psychiatric Disorders

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Abstract: Diagnostic information in psychiatry can be conceptually separated into symptoms and functional impairment. Functioning and disability are classified in the international classification of functioning (I.C.F.) (WHO 2001). In the present study disability was assessed in patients of five psychiatric disorders, schizophrenia, bipolar disorder, recurrent depressive disorder, mental and behavioural disorders due to use of alcohol and dementia using IDEAS. IDEAS is Indian Disability Evaluation and Assessment Scale, adopted by Government of India for implementing disability welfare schemes for the mentally ill. It measures disability in the domains of self-care, inter personal activities, communication and understanding, and work.

Aims and objectives: To evaluate the nature and disability in the study groups, to compare the degree of disability with the severity of the disorder To compare disability among various disorders under study.

Materials & Methodology: Study sample was taken from patients attending outpatient department of Government Hospital for Mental Care, Visakhapatnam, a teaching hospital under University of health sciences, Andhra Pradesh. 161 patients who were above 18 years of age of, both genders who consented to participate in the study, who were diagnosed with ICD10 criteria for schizophrenia, bipolar affective disorder, depressive disorder, alcohol use disorders and dementia were evaluated using PANSS, YMRS, HAM-D, AUDIT and MMSE respectively to rate the severity of illness. IDEAS was used to assess disability.

Results and Discussion: In patients with schizophrenia strong positive correlation with IDEAS-GS was seen in on all the components of PANSS, stronger for negative syndrome scores, ($r=0.608, p<0.01$), then for positive syndrome scores, ($r=0.320, p<0.01$). The correlation between the General psychopathology scores and IDEAS Global score was also highly significant ($r=0.516, p<0.01$). GP and NS seem to affect all areas of functioning PS do not significantly affect communication and self-care. In bipolar disorder all core areas of functioning are affected. Self-care, though significant, was least affected. Between HAM-D and IDEAS Global score a highly significant correlation was seen ($r=0.522, p<0.01$). In alcohol use disorders interpersonal communication was the main area of function significantly affected ($r=0.25, p<0.05$). In dementia, disability caused is more in interpersonal communication than work and self-care. Across groups Schizophrenia, followed by dementia MDD, BPAD, and alcohol use disorders were disabling in that order.

I. Introduction

Disability is a complex phenomenon reflecting an interaction between features of a person's body and the features of the society in which he or she lives. In this view persons disabilities are seen as being restricted in performing daily activities because of a complex set of interacting factors some pertaining to the person and some pertaining to the person's environment & social/political arrangement. Hence Government programs and policies to help persons with disabilities more fully in the community and & workplace. ⁽¹²⁾ Nearly 31% of the world's disability is accounted for by mental disorders. It was found that five out of ten leading causes of disability worldwide are in the category of mental illnesses: Major depression, Alcohol Dependence, Schizophrenia, Bipolar Affective disorder and Obsessive Compulsive Disorder. According to world report 2001 by WHO, mental illnesses account for 25% of total disability and 16% of total burden of DALYs. (Disability Adjusted Life Years). ⁽¹²⁾ Psychiatric disability differs from physical disability in that the impairment is not visible. It is also compounded by stigma and discrimination.

Review of literature

In India, research in psychiatric disability is focused more on schizophrenia. Wig et al. in 1979⁽¹³⁾ constructed a scale to measure disability of psychiatric patients in India. They found that disability is more in psychotic patients (ICD 8) compared to neurotic patients. Thara et al. developed SAPD (Schedule for Assessment of Psychiatric Disability) from Disability Assessment Schedule (WHO-DAS II).⁽¹⁴⁾ They found highest disability in the area of occupational functioning and after three years disability tended to be stable, also it was not related to the number of relapses.⁽¹⁵⁾ Chaudhury et al.⁽¹⁶⁾ assessed some aspects of disability associated with seven psychiatric disorders: Schizophrenia, Bipolar Affective disorder, Anxiety disorders Depression, Obsessive compulsive disorder, Dementia and Mental and behavioural disorders due to use of alcohol among 228 patients, using IDEAS and Schedule for Clinical assessment of Neuropsychiatry (SCAN). Results showed significant disability associated with all seven disorders, schizophrenia being maximally disabling. Domains of disability varied across the various disorders, tended to correlate with severity of the disorder. Disability across most disorders reduced at the end of six months follow up and then tended to even out after that period. Kumar et al.⁽¹⁷⁾ studied pattern and prevalence of disability due to mental disorders in a rural population of thousand using IDEAS, and found an overall prevalence of 2.3%. A review by Margaret et al. states that individuals with schizophrenia exhibit functional disability across a wide array of domains preventing them from return to independent living even after symptoms remitted.

II. Materials And Methodology

The study sample is from out-patient department of government hospital for mental care, a 300 bed exclusive psychiatric hospital, in Visakhapatnam, the only psychiatric hospital in the state of Andhra Pradesh, a premier university teaching institute under Dr. NTR university of Health Sciences. 161 patients diagnosed of disorders under the study as per ICD-10 criteria who consented to participate in the study meeting inclusion criteria of age 18 years and above, of both genders, with a minimum duration of illness greater than two years, and had no comorbid mental retardation, chronic debilitating medical illness, or organic brain disorder other than alcohol use disorder and did not have other psychiatric comorbidity were evaluated. Severity of clinical illness was assessed by using PANSS (positive and negative syndrome scale) for schizophrenia,⁽⁴⁾ YMRS (Young's Mania Rating Scale) for Bipolar disorder,⁽⁶⁾ HAM-D (Hamilton's Depression Rating Scale) for recurrent depression,⁽⁷⁾ AUDIT (Alcohol use Disorders Identification test) for Mental and Behavioural Disorders due to Alcohol,⁽³⁾ MMSE (Mini Mental Status Examination) for Dementia.⁽⁵⁾ Disability on account of illness was assessed by IDEAS (Indian Disability Evaluation and Assessment Scale).⁽⁸⁾ Comparison of Disability in different disorders was done by applying ANOVA on SPSS 20.

III. Results

Results are tabulated as below.

Table I: Age, gender, education and duration of illness and percentage of disability.

DISORDER	males	females	total	Mean age#	Mean edu*#	Mean durn**#	IDEAS GS ≥ 40%	% of disability
Schizophrenia	42	24	66	32.53 ± 9.31	8.20 ± 5.23	7.02 ± 5.32	47	71.2
Depression	12	10	22	38.62 ± 10.52	4.66 ± 4.22	10.28 ± 3.62	7	31.81
Bipolar Affective Disorder	22	8	30	38.97 ± 13.92	8.15 ± 4.30	12.13 ± 9.58	10	33.33
Alcohol ^s	30	0	30	40.31 ± 8.12	9.25 ± 3.41	14.02 ± 6.79	4	13.33
Dementia	9	4	13	64.42 ± 7.15	7.22 ± 3.98	2.21 ± 1.30	11	84.61

	115	46	161				
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*edu – education; **durn – duration, \$ -Mental and Behavioural disorders due to use of alcohol, # - Years.

Table II: Multiple comparisons.

Diagnosis (i)	Diagnosis (j)	Mean difference (i-j)	Standard error	p
Depression	Schizophrenia	-3.022	0.788	0.001
B.A.D*	Schizophrenia	-5.018	0.842	0.000
Alcohol ^{\$}	Schizophrenia	-5.422	0.782	0.000
Dementia	Schizophrenia	-1.421	1.212	0.733

Table III: ANOVA

ANOVA	Sum of squares	DF	Mean Square	F	p
Between groups	1474.322	6	244.652	19.1060.000	
Within groups	2844.011	221	12.624		
total	4318.433	227			

Table IV: Correlation between rating scores and areas of functioning.

Disorder & Rating scales	IDEAS GS	
	Correlation Coefficient	Significance (2 tailed)
Schizophrenia		
PANSS – NS	0.608**	0.000
PANSS – PS	0.322**	0.007
PANSS – GP	0.516**	0.000
Depression (Recurrent)		
HAM – D	0.522**	0.003
Bipolar Affective Disorder		
YMRS	0.621**	0.000
Alcohol		
AUDIT TS	0.347*	0.025
dementia		
MMSE	-0.550	0.026

*implies correlation is significant at 0.05 level; ** implies correlation is significant at 0.01 level

Table VI: Correlation between rating scale and disability.

Disorder	Rating Scale	IDEAS			
		Self - care	IPR	Communication	work
Schizophrenia	PANSS – NS	0.472** (0.000)	0.423** (0.000)	0.371** (0.001)	0.5454** (0.000)
	PANSS – PS	0.151 (0.211)	0.355** (0.002)	0.162 (0.182)	0.349** (0.003)
	PANSS – GP	0.314** (0.008)	0.421** (0.000)	0.272* (0.022)	0.500** (0.001)
Depression	HAM – D	0.491** (0.006)	0.322 (0.080)	0.314 (0.090)	0.592** (0.003)

Alcohol	AUDIT ts	0.044 (0.381)	0.251* (0.049)	0.192 (0.125)	0.166 (0.124)
Dementia	MMSE	-0.356 (0.114)	-0.590* (0.013)	-0.531* (0.032)	-0.423 (0.071)

*implies correlation is significant at 0.05 level; ** implies correlation is significant at 0.001 level.

IV. Discussion

The study sample was predominantly from rural areas surrounding Visakhapatnam district of A.P, predominantly male, mean age 4th decade except for patients with Dementia. The findings indicate a significant amount of disability occurs in a varying proportion of patients in all the disorders under study. The degree of disability tends to correlate with the severity of the disorder as in the study of Chaudhury et al.⁽¹⁶⁾. On a proportionate basis schizophrenia and dementia top the list. The difference between these two groups in our study was that while schizophrenia tends to significantly affect all the core areas of functioning, dementia was found to have a detrimental bearing primarily in the area of interpersonal relations and communication. But it should be noted that the sample size in the two groups was not equal, and patients with dementia presented to the clinic relatively earlier. This finding is in contrast to that of Sanderson and Andrews⁽⁵⁾ who found depression and anxiety disorders to be the primary disorders associated with disability. Olfson et al.⁽¹⁰⁾ found depression and bipolar disorder to be the major disability related disorders. In our study the percentage of patients with depression and bipolar disorder with severe disability was similar but the primary areas of dysfunction in depression were self-care and work while bipolar disorder like schizophrenia affects all the four core areas of functioning. In alcohol use disorders, the dysfunction seems to be in the area of interpersonal communication.

V. Conclusions

All the five disorders under study are associated with significant disability Schizophrenia being by far the most disabling Areas of impaired functioning on account of disorder were varied Knowledge of specific areas of dysfunction may have implications for treatment IDEAS is a sensitive tool in detecting differences in disability both qualitatively and quantitatively across different types of mental disorders.

Limitations of the study

The sample size was not equally distributed across the various diagnostic groups This study being entirely hospital based, and of limited size, is not representative of the community at large Other disorders like anxiety disorders were not included, because of low numbers of available cases.

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