

Who is More Disabled – Major Depressive Disorder or Alcohol Use Disorder?

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Abstract:

Background: Disability associated with psychiatric illness is a major contributory factor to the global burden of the disease. Among other mental illnesses, Major Depressive Disorder and Alcohol Use Disorder emerge a great challenge with their extensive disabilities in various aspects of life. Henceforth assessment of nature and level of disability of this two disease groups stands for prime importance.

Materials and Method: It is a hospital based, cross-sectional study conducted in Psychiatry Department, Assam Medical College And Hospital, Dibrugarh. Samples were Major Depressive Disorder (n= 30) and Alcohol Use Disorder (n = 30). The various tools used were ICD-10 Classification of Mental and Behavioural Disorders Clinical Descriptions and Diagnostic Guidelines to diagnose both the study groups, Indian Disability Evaluation and Assessment scale (IDEAS) to assess disability. For assessment of severity of disorder, 24 item version of Hamilton Rating Scale for Depression (HAM-D) was administered in major depressive disorder and Alcohol Use Disorder Identification (AUDIT) in alcohol use disorder.

Result: Result revealed an appreciable disability in different areas in both the study groups. More dysfunction was noticed in Major depressive Disorder. Correlation analysis also showed highly significant positive correlation between severity of the illness and disability.

Keywords: Major Depressive Disorder, Alcohol Use Disorder, Disability, Severity of Illness

Date of Submission: 13-10-2017

Date of acceptance: 27-10-2017

I. Introduction

Disability is not a psychiatric illness; it is the consequence of its chronic course that causes disability in various psychiatric illnesses. World Health organization has broadened the concept of disability and specially includes mental illness in addition to mental retardation as a cause of disability. Disability in the context of mental illness involves the following areas—daily activities, social relationship and occupational functioning. Disability associated with mental illness is a major global burden of disease. The global burden of disease study conducted by the World Health organization and the World Bank in 1996 has reported depressive disorder to be the fourth leading cause of disability adjusted life years worldwide irrespective of all age and sex. Unipolar major depressive disorder would be the second greatest cause of global burden of disease after ischaemic heart disease in near future (Murray and Lopez 1996)¹. Alcohol use disorder is another chronic and relapsing disorder. Benegal et al 2001 opined that different alcohol consumption patterns are associated with a variety of health, occupational, psychological and social problems². Alcoholism creates a major stress on the family system, disturbs interpersonal relationship and causes poor economic condition of family members. Violence, marital conflict, economic insecurity and divorce were the most common family problems that arose out of excessive alcohol consumption (Brennan 1994)³. According to Chaturvedi et al 2000, quality of life also could be seriously affected⁴. The Global Burden of Disease project estimated alcohol to be responsible for 1.5% of all deaths and 3.5% of total Disability Adjusted Life Years (Murray and Lopez 1996). Therefore both the disease groups cause a great burden to their family and to the society. Major depressive disorder is thought to be the expected second greatest cause of global burden of disease in 2020. Alcohol use disorder has been also included among the top twenty health conditions in the list of leading causes of Disability Adjusted Life Years (Murray and Lopez 1996). In the field of psychiatry, among other mental illnesses, these two disorders emerge a great challenge with their extensive disabilities in various aspects of life. Henceforth assessment of nature and level of disability of this two disease groups stands for prime importance. Knowledge of disability could help in their management too where psychosocial intervention plays a great role. The present study, thus attempts to evaluate and compare disability and severity of illness between major depressive disorder and alcohol use disorder.

II. Materials And Method

This study was carried out with major depressive disorder and alcohol use disorder comprising of 30 patients in each. It was conducted in psychiatry department, Assam medical college, Dibrugarh over a period of one year from June 2005 to July 2006. The inclusion criteria were both male and female patients aged eighteen years and above with a minimum of two years duration of illness. Those who had co morbid other psychiatric or physical illness, mental retardation and were not willing to participate were excluded from the study. The various tools used were ICD-10 Classification of Mental and Behavioural Disorders Clinical Descriptions and Diagnostic Guidelines⁵ to diagnose both the study groups. Indian disability evaluation and assessment scale (IDEAS) was used to assess disability. It is a scale for measuring and quantifying disability in mental disorder and has been developed by the Rehabilitation Committee of Indian psychiatry society in 2002. It consists of four items - self care, interpersonal activities, communication and understanding, work. Each item is scored between 0 - 4. Adding scores on four items gives the total disability score. A score of 8 or above corresponds to >40% disabilities.⁶

For assessment of severity of disorder, 24 item version of Hamilton Rating Scale for Depression (HAM – D)⁷ was administered in major depressive disorder and Alcohol Use Disorder Identification Test (AUDIT)⁸ in alcohol use disorder. Socio-demographic variables of the sample were obtained using a semi structured pro forma.

Procedure

The study was initiated after obtaining an informed consent from the patients. Subjects attending outpatient and in-patient department of Psychiatry and Drug De-addiction center, Assam Medical College were assessed and diagnosed for major depressive disorder and alcohol use disorder as per diagnostic criteria of ICD-10 Classification of Mental and Behavioural Disorders Clinical Descriptions and Diagnostic Guidelines. Every diagnosed third patient of both the study groups who fulfilled the inclusion criteria were taken for the study after excluding the exclusion criteria.

In both the disease groups appropriate scales as mentioned earlier were administered to evaluate disability and severity of illness.

Table – 1: Socio demo- graphic variables of study groups

Variables	Major Depressive Disorder N=30	Alcohol use disorder N=30
Age group(years)		
20 - <30	6(20%)	2(6.67%)
30 - <40	3(10%)	13(43.33%)
40 - <50	7(23.33%)	12(40%)
50 - <60	8(26.67%)	2(6.67%)
60 - <70	6(20%)	1(3.33%)
Sex		
Male	13(43.33%)	30(100%)
Female	17(56.67%)	0(0%)
Marital status		
Unmarried	2(6.67%)	5(16.67%)
Married	21(70%)	25(83.33%)
Widow/Widower / Separated	7(23.33%)	0(0%)
Locality		
Rural	24(80%)	24(80%)
Urban	6(20%)	6(20%)
Formal education		
0	12(40%)	1(3.33%)
1 – 4	4(13.33%)	2(6.67%)
5 – 7	1(3.33%)	3(10%)
8 – 10	8(26.67%)	11(36.67%)
11 and above	5 (16.67%)	13(43.33%)
Occupational status		
Never employed	2(6.67%)	0(0%)
Currently unemployed	0(0%)	3(10%)
Full time employed	8(26.67%)	15(50%)
Part time employed	0(0%)	1(3.33%)
Self employed	6(20%)	11(36.67%)
Student	1(3.33%)	0
House wife	11(36.67%)	0
Others	2(6.67%)	0

III. Result

Socio – demographic characteristics

Socio-demographic data showed that majority of patients (26.67%) in major depressive disorder came from age group between 50 to <60 years while 43.33% patients came from age group of 30 to <40 years in alcohol use disorder. Although, all patients of alcohol use disorder were male, there was female preponderance in major depressive disorder(56.67%). In both the study groups most of the patient belonged to nuclear family, and Hindu community from a rural background. Occupational data revealed that prevalence of housewives was more in major depressive disorder(36.67%) while in alcohol use disorders full time employed was more predominant(50%). Highest percentage of patients in major depressive disorder did not receive formal education(40%). In contrast, the alcohol use disorder group was more educated, having formal education 11th standard and more(43.33%).

Disability and correlation of severity in Major depressive disorder and Alcohol use disorder:

Table – 2: Disability in study groups according to IDEAS (≥ 40%)

Disease Group	N	IDEAS ≥ score 8		In our study, out of thirty patients in major depressive disorder, 76.67% patients were found to have disability (IDEAS global score ≥ 40%) whereas in alcohol use disorder, it was 56.67% (table-2).
		N	%	
Major depressive disorder	30	23	76.67%)	
Alcohol use disorder	30	17	56.67%	

Correlation analysis between Hamilton rating scale for depression and IDEAS global score showed (table-3) a highly significant positive correlation (r=0.9135, p<0.01).

Table – 3: Correlation of Disability of Major Depressive Disorder with Severity

Disease group	IDEAS Global score	Mean	HAM-D Total score	Mean	r	P
Major Depressive Disorder N=23	248	10.52	526	22.86	0.9135	0.004*

Table – 4: Correlation of areas of Dysfunction of Major Depressive Disorder with HAM-D

Areas of Dysfunction	n	IDEAS Score	HAM-D Total Score	r	P
Self care	20	45	462	0.05600	1.12
Interpersonal Activity	24	71	540	0.8920	0.002*
Communication & Understanding	5	5	101	0.5150	0.13
Work	23	88	526	0.9730	0.007*

Table – 5: Correlation of Disability of Alcohol Use Disorder with Severity

Disease group	IDEAS GS	Mean	AUDIT TS#	Mean	R	P
Alcohol Use Disorder N=23	176	10.35	458	41.69	0.9876	0.007*

Table – 6: Correlation of areas of Dysfunction of Alcohol Use Disorder with AUDIT

Areas of Dysfunction	IDEAS Score	AUDIT Total Score	r	P
Self care n=10	27	219	0.9237	0.0026*
Interpersonal Activity n=17	47	381	0.9493	0.0017*
Communication & Understanding n=3	7	75	0.6521	0.2101
Work n = 17	59	379	0.9499	0.0031*

Table – 7: Comparison of Disability ($\geq 40\%$) in study groups

Major Depressive Disorder n=23		Alcohol Use Disorder n=17		t	p
IDEAS-GS	Mean	IDEAS-GS	Mean		
248	10.52	176	10.35	2.983*	0.0058*

Table – 8: Comparison of Areas of Dysfunction in study groups according to IDEAS ($\geq 40\%$)

Areas of Dysfunction	Major Depressive Disorder			Alcohol Use Disorder			t	p
	n	GS	MEAN	n	GS	MEAN		
Self care	20	45	225	10	27	27	1.05	0.0439
Interpersonal Activity	24	71	309	17	47	276	2.84*	0.0025*
Communication & Understanding	5	5	125	3	7	233	1.02	0.0602
Work	23	88	383	17	59	311	2.85*	0.0021*

On individual areas of functioning it was observed from table 4 that severity of depression significantly affected interpersonal activity and work, but not the areas of self care and communication. Likewise in Alcohol use disorder too significant positive correlation was revealed between disability and severity of disorder as assessed by AUDIT ($r=0.9876$, $p<0.01$). It was indicated by table 5. The primary functions of disability influenced by alcohol appeared to be self care ($r=0.9237$, $P<0.01$) interpersonal activity ($r=0.9493$, $P<0.01$) and work ($r=0.9499$, $P<0.01$). All three of these areas were strongly correlated with AUDIT total score (table-6). On comparison statistical analysis showed more degree of dysfunction in Major depressive disorder than Alcohol use disorder (table 7). Among the four components of disabilities interpersonal activities and work appeared to be more affected in Major depressive disorder than that of Alcohol use disorder (table-8).

IV. Discussion

Disability associated with psychiatric illness is well-known. Yet fewer reviews on disability associated with both the study groups could be made available even after wide search of scientific literature. However, our study replicated some of those earlier studies. Chaudhury et al (2006) had conducted a study on disability with seven different psychiatric illnesses in this department. Their sample size comprised of 30 patients in each group of major depressive disorder and alcohol use disorder. In the hierarchy of the degree of disability, they found alcohol use disorder next to depressive disorder. In their study, depressive disorder revealed significant disability in the area of self care and work. In our study, we also found significant disability in work and interpersonal activity in depressed patients; however we did not find self care to be affected. Investigations in these components with a larger sample size would be justified.

Impairment in interpersonal activity of alcohol use disorder patients was also found by Chaudhury et al (2006) which was similar to our revelations. But our alcoholic patients showed a significant disability in self care and work in addition to interpersonal activity. Our study was a hospital based study. Most of the alcoholic patients came to the drug de-addiction centre to seek treatment when they become severely ill and debilitated. Moreover, alcohol became the prime and priority for them over all other aspects of life. They failed to take care of themselves, not even perform their daily routine activities. This might be the reason behind the fact that we found more impairment in self care and work function in alcohol group of our study. Similar to our study they also revealed a significant correlation between degree of dysfunction and severity of disorder in both major depressive and alcohol use disorder⁹.

Olfson et al (1997) from their study sample comprised of 1001 primary care patients reported recent loss of work time and marital distress in depressive disorder. They found a unique association between alcohol use disorder and impaired social and role functioning¹⁰.

Ormel et al (1993) studied the degree of dysfunction in the areas of self care, family, social and occupational function in common psychiatric illness of primary care patients. They also revealed significant disability in occupational and social role functioning in depressive disorder¹¹. Fava and Davidson in 1996 too found 50% work impairment and 60% risk of ongoing interpersonal distress in depressive patients like our study¹². The revelations that we obtained from our study were very much similar to their findings. Our observations showed impairment of work function in major depressive disorder which replicated the earlier study conducted by Cuijper et al (2004)¹³.

Our study also reflected the study conducted by Sanderson and Andrews in 2002¹⁴. They had found a strong positive association between disability and depressive disorder and alcohol dependence. Their study too revealed more disability in depressive disorder. Rytala et al studied a sample of 269 psychiatric inpatients and out patients in 2005¹⁵. Similar to us they too observed a significant correlation of severity of illness with social, functional and work impairment in major depressive disorder.

Conclusion –

A definite degree of disability is seen to be associated with some specific areas in both major depressive disorder and alcohol use disorder. The amount of dysfunction is comparable in both the disease groups. Severity of illness also has a great impact on disability. Such knowledge on specific areas of dysfunction could be an important factor on the psychosocial management and planning rehabilitation of these two chronic disorders.

The present study is a small sample based study limited to exclusively to the patients seeking services in the psychiatry department of a tertiary hospital . Therefore it may not likely to represent the whole community. Moreover we could not make any comment on longitudinal stability of disability in these study groups as we did not make any attempt to examine the participants in follow up. However it opens a new avenue for further study on disability of psychiatric illness with a larger number of samples with provision to follow up to assess the stability of these disabilities.

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*Dr Sabita Dihingia. “Who is More Disabled – Major Depressive Disorder or Alcohol Use Disorder?” *IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)* , vol. 16, no. 10, 2017, pp. 50–54.