

A Study to Assess the Level of Psychosocial and Intellectual Functioning among Depressive Patients

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Abstract: *Background: Due to stressful life events the scenario of depression has been increased nowadays. That leads to certain psychosocial consequences and also produces changes in intellectual functioning of people. Aim: The main aim of the study was to find out association between psychosocial and intellectual functioning among depressive patients and correlation of psychosocial and intellectual functioning. Sample: 80 samples were selected purposively; in division of 20 samples in each category of depression including; mild, moderate and severe. Method: ex-post facto (Correlational) research design was used and data has been collected by using Beck depression inventory-2; Global assessment of functioning scale and Raven's progressive matrices. Result: The result shows significant association of depression over psychosocial and intellectual functioning. Negative correlation has been found which shows as severity of depression increases the level of psychosocial functioning decreases which means level of impairment in psychosocial functioning increases. Similarly with intellectual; in general it is found that as level of depression increases level of intellectual functioning decreases; but some patient with severe depression has found superior intellectual function that means depression is having impact over intellectual functioning but it is primarily determined by genetics and education level. It is found that person with higher intellectual functioning with co-morbid depression have more problems in adjustment.*

Keywords: Depression, psychosocial functioning, intellectual functioning

1. Significance of the Study

Depression is a most widely identified mood disorder worldwide; so for treatment of depression is must be considered in prioritized way.

Apart from this almost every individual suffering from depression has certain type of difficulty or sometimes impairment in maintaining relationships with others; these relationships includes interpersonal functioning (relationship difficulties), psychosocial functioning (social or workplace issues), intellectual functioning (reasoning or thinking ability) etc; thus measurement of these functions is important aspect in treating depression.

Management of co-morbidly impaired functioning facilitates early cure which mainly includes treatment measure like counseling, psycho-education, social skills training, skill training, group therapeutic measures, etc; through which the patient can be easily managed.

But before moving onto treatment measure the assessment of disorder is must; which helps therapist to identify the level or severity of the impairment which makes ease to plan for treatment.

International Scenario:

Depression is the common psychological disorder, affects about 121 million people worldwide. WHO (World Health Organization) states that depression is the leading cause of disability as measured by Years Lived with Disability (YLDs) and the fourth leading contributor to the global burden of disease.⁶

In the southeast Asian region, 11% of DALYs and 27% of YLDs are attributed to neuropsychiatric disease. A review

of eight epidemiological studies on depression in South Asia shows that the prevalence in primary care was 26.3%.⁶

National Scenario:

Literature shows that in India about 3-4% that is approximately 100 crore population is estimated to have major mental disorders and among them 7-10% of the population suffers from major to minor depressive episodes.⁶

Depression is associated with high rates of suicides. About 50% of individuals who have committed suicide carried a primary diagnosis of depression. Indian union health ministry estimates state that 120,000 people commit suicide every year in India. Also over 400,000 people attempt suicide.⁶

In literature there has been found that psychosocial functioning deprivation is associated with mood disorders specially depression. So it is required to assess the psychosocial functioning among patients who are having depression.⁶

Apart from psychosocial functioning intellectual functioning is also important aspect of individual's life. Majorly the psychosocial functioning depends upon the problem solving ability of individual as well as ability of logical thinking; which shows relationship of education and intelligence with the intellectual ability of an individual. But while patient is suffering from depressive episodes is the intellectual ability remains same? Or there may be some alteration which is must to detect that's why study of association of depression and intellectual functioning is necessary.

Statement of the Problem:

A study to assess the intellectual and psychosocial functioning among depressive patients.

Depression: The depression is consider as a mental disorder which shows the characteristics of low mood, decreased psychomotor activity, depressive cognition that can be at higher level or lower level with presence or absence of physical pain, impairment in biological functions, suicidal ideation without any underlying organic cause with presence or absence of co-morbid psychiatric condition at minor level; but psychosis, schizophrenia, tics and mental retardation, etc type severe psychiatric conditions are avoided.

Intellectual functioning: Intellectual functioning is considered as ability to learn quickly in different contexts or situations provided in clinical setting.

Psycho-social functioning: Psychosocial functioning is considered as individual's quality in task performance at occupational setting as well as his or her relationship with co-worker, relatives, coping ability of individual and capability of managing own work.

Objectives:

- To assess the level of intellectual functioning among depressive patients.
- To assess the level of psychosocial functioning among depressive patients.
- To find out the correlation between intellectual and psychosocial functioning of depressive patients.

Hypothesis:

- **H₁:** There will be significant impact of depression on psychosocial functioning.
- **H₂:** There will be significant impact of depression on intellectual functioning
- **H₃:** There will be correlation between intellectual and psychosocial functioning of depressive patients.

2. Materials and Methods

Research design:

Ex-post facto (Correlational) research design
 O1 O2 O3
 Level of depression level of psychosocial functioning level of intellectual functioning

Variables:

- **Independent variable:** Level of depression.
- **Dependent variables:** Level of intellectual functioning and level of psychosocial functioning.

Sampling:

- **Sample size:** 80 consecutively selected samples
- **Sampling technique:** Purposive sampling.
- **Sampling criteria:**
- **Inclusion criteria**
 - Depressive patient whose age is between 18 to 45 years and who are coming to psychiatric OPD of Geetanjali Medical College and Hospital.
 - Depressive Patients who knows Hindi or English language.
 - Depressive patients who gives the consent for data collection
- **Exclusion criteria**
 - The patients who don't know Hindi or English language.
 - The depressive patients who are under 18 years or above 45 years.
 - Depressive patient who are having other associative major psychiatric disorder including Schizophrenia and mental retardation

Sample distribution:

Sr. no	Category	Sample size
1	Extreme depression	20
2	Severe depression	20
3	Moderate depression	20
4	Mild depression	20

The data has been collected by using following **psychological tools:**

Psychological tests	Developed by	year
Beck depression inventory	Aaron T Beck	1996
Global assessment of functioning scale	American psychological association	2000
Raven's educational standard progressive matrices	J Raven J C Raven J H Court	2000

Statistical analysis:

After finding mean and SD scores; correlation has been found by using Karl Pearson's product movement correlation and significant by using t value.

3. Result

Table: A1 Mean and SD of psychosocial and intellectual functioning levels among mean depressive value

	N	Mean	SD
Level of depression	80	30.71	10.636
Psychosocial functioning	80	44.75	18.717
Intellectual functioning	80	52.31	28.069

Table (A1) shows the mean values of level of depression, psychosocial functioning and intellectual functioning among all patients with depression (mean depression value: 30.71)

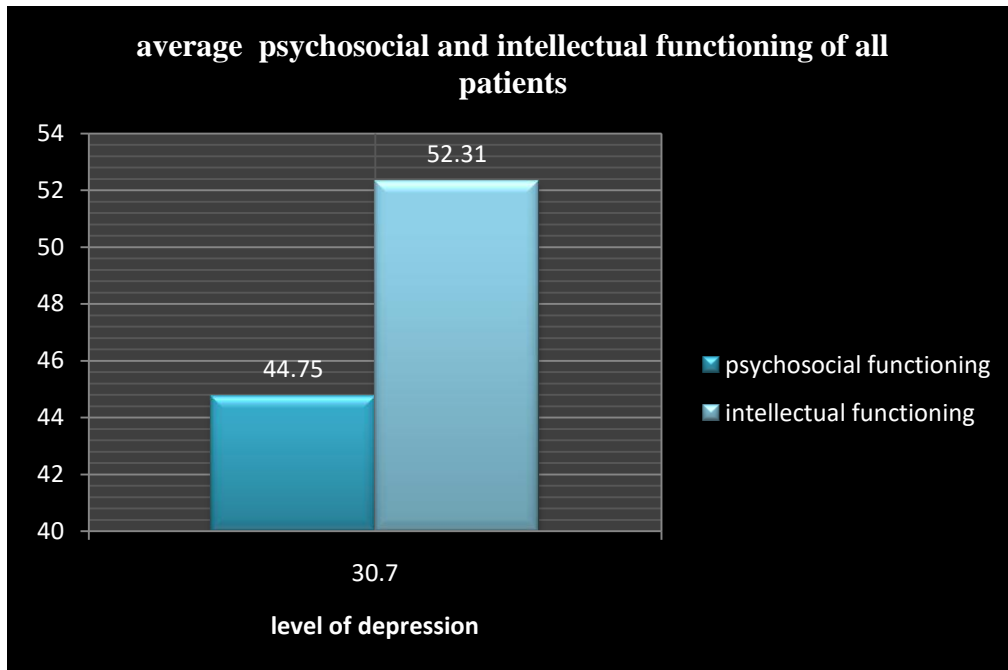


Figure 3.1: average psychosocial and intellectual functioning of depressive patient

Table A2: Mean and SD of psychosocial and intellectual functioning levels among depressive patients

Level of depression	N	Mean		SD	
		Psychosocial functioning	Intellectual functioning	Psychosocial functioning	Intellectual functioning
Extreme	20	21	46.7	5.982	33.177
Severe	20	32	51.2	8.522	27.082
Moderate	20	49	48.5	6.958	26.925
mild	20	71	62.84	7.254	26.917

Table shows the mean values and SD psychosocial and intellectual functioning among different levels of depression.

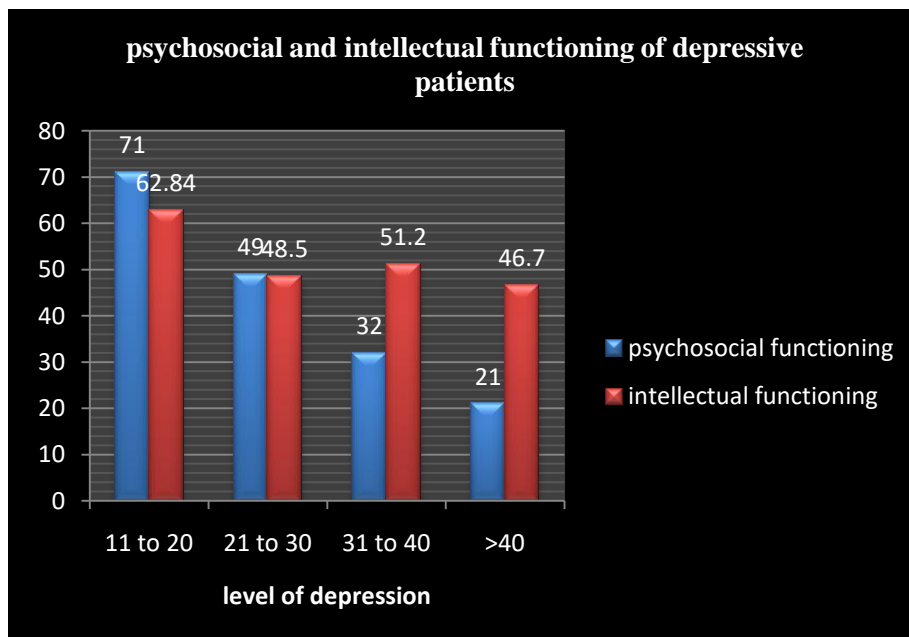


Figure 3.2: average psychosocial and intellectual functioning among different depressive categories

Table B1: Correlation, t-score and p value measures of psychosocial functioning with depression

B1.1: Extreme depression

	N	Mean	SD	r	t score	p value
Depression	20	44.1	2.0494	-0.524	12.093	<0.0001*
Psychosocial functioning	20	21	5.982			

B1.2: Severe depression

	N	Mean	SD	r	t score	p value
Depression	20	36	2.791	0.997	1.994	<0.05*
Psychosocial functioning	20	32	8.522			

B1.3: Moderate depression

	N	Mean	SD	r	t score	p value
Depression	20	26.15	1.752	-0.807	-14.254	<0.0001*
Psychosocial functioning	20	49	6.958			

B1.4: Mild depression

	N	Mean	SD	r	t score	p value
Depression	20	16.6	2.393	-0.576	-31.847	<0.0001*
Psychosocial functioning	20	71	7.254			

B1.5: All patients with depression

	N	Mean	SD	r	t score	p value
Depression	80	30.712	10.636	-0.868	-5.832	<0.0001*
Psychosocial functioning	80	44.75	18.717			

p<0.0001: HS; p<0.05: S; * statistically significant.

Table B1 shows the correlation, t score and p values of psychosocial functioning with level of depression

Table B2: Correlation, t-score and p value measures of intellectual functioning with depression

B2.1: Extreme depression

	N	Mean	SD	r	t score	p value
Depression	20	44.1	2.049	-0.475	-0.35	>0.05
Intellectual functioning	20	27	5.982			

B2.2: Severe depression

	N	Mean	SD	r	t score	p value
Depression	20	36	2.791	-0.207	-2.497	<0.05*
Intellectual functioning	20	51.2	27.081			

B2.3: Moderate depression

	N	Mean	SD	r	t score	p value
Depression	20	26.15	1.725	0.380	-3.704	<0.05*
Intellectual functioning	20	48.5	26.925			

B2.4: Mild depression

	N	Mean	SD	r	t score	p value
Depression	20	16.6	2.393	-0.276	-7.653	<0.0001*
Intellectual functioning	20	62.85	26.92			

B2.5: All patients with depression

	N	Mean	SD	r	t score	p value
Depression	80	30.712	10.636	-0.189	-6.291	<0.0001*
Intellectual functioning	80	55.312	28.806			

p<0.0001: HS; p<0.05: S; >0.05: NS; * statistically significant.

Table B2 shows the correlation, t score and p values of intellectual functioning with level of depression

Table: B3: correlation, t-score and p value measures of psychosocial functioning with intellectual functioning of patients with depression

B3.1: Extreme depression

	N	Mean	SD	r	t score	p value
Psychosocial functioning	20	27	5.982	0.126	-2.613	<0.05*
Intellectual functioning	20	46.7	33.177			

B3.2: Severe depression

	N	Mean	SD	r	t score	p value
Psychosocial functioning	20	32	8.522	-0.024	-3.024	<0.05*
Intellectual functioning	20	51.2	27.082			

B3.3: Moderate depression

	N	Mean	SD	r	t score	p value
Psychosocial functioning	20	49	6.958	-0.393	0.0804	>0.05
Intellectual functioning	20	48.5	26.925			

B3.4: Mild depression

	N	Mean	SD	r	t score	p value
Psychosocial functioning	20	71	7.254	0.283	1.307	>0.05
Intellectual functioning	20	62.85	26.917			

B3.5: All patients with depression

	N	Mean	SD	r	t score	p value
Psychosocial functioning	80	44.75	18.717	0.187	-1.968	<0.05*
Intellectual functioning	80	52.312	28.069			

p<0.05: S; >0.05: NS; * statistically significant.

4. Discussion

Psychosocial functioning:

H₁: There will be significant impact of depression on psychosocial functioning.

The finding of psychosocial functioning has significant affect on depression.

Table B1 shows the correlation and significance of depression with psychosocial functioning.

The negative correlation has been found between level of psychosocial functioning and level of depression except for patients with severe depression (in patients with severe depression it is positively correlated: that may be the chance effect) which is highly correlated; as the level of depression increases the level of psychosocial functioning decreases which means level of impairment in psychosocial functioning is increasing. The level of depression is directly proportional to level of impairment in psychosocial functioning. The finding is highly significant in present study.

Depressive symptoms are characterized by low mood, irritability, lack of energy, guilt feeling, problems in thinking and decision making and changes in routine habitual patterns including; eating, sleeping and elimination- these depressive symptoms are responsible for producing impairment in psychosocial functioning as it produces lethargy and irritability in mood it reduces the productivity in work which may lead to certain consequences related to social and occupational functioning.

In present study most of the patients have found to have difficulty in occupational functioning rather than social functioning or relationship difficulties; patients with severe depression has shown difficulty in both the areas.

Because of depression the patients are having problems in adjustment in work place. Due to lack of interest in work

their cooperation is decreased with coworkers. With poor life satisfaction and interpersonal relationship the patients do not want to involve with others in various settings and task performances.

Mild depression:

Patients suffering from mild depression were likely to be identified with minimal impairment in psychosocial functioning. They generally showed difficulties in concentration after argument with closed one and facing slight occupational difficulty including temporary failure in work due to stress. And some patient shows very minimal symptoms including mild performance anxiety or occasional argument with family members.

Moderate depression:

Patients suffering from moderate depression have shown symptoms including low mood or depressed mood, insomnia, occasional skipping of work but generally functioning well. In this case some patients have identified with having occasional panic attacks and they have some conflict with others especially with co-workers at occupational setting and with friends.

Severe depression:

Patients with severe depression has identified with having symptoms including conflicts with family members, friends and co-worker and they seem to be unable to keep job, sometimes seem to be engaged in obsessive rituals, they were found to be failed in role performance and work performance. Suicidal ideality was observed in very few patients.

Extreme depression:

Patients with extreme depression have shown high suicidal ideality and they seem to be unable to perform functions almost in all areas including; family, society, friends, personal life and occupational setting. Two patients were identified with having history of suicidal attempts.

Hence; first hypothesis is accepted.

These findings are supported by following studies.

A study conducted by Mehta et. al. to assess the level of psychosocial functioning among depressive patients found that increase in depression level is directly proportional to impairment in psychosocial functioning. A patient with bipolar depression shows higher impairment in psychosocial functioning. [1] Similarly other study conducted by Adler et. al shows direct relationship of depression with job performance they found that patients with depression shows multiple area of impairment in job performance.[16] Other study conducted at Cambridge university they have found that reduction in severity of depressive symptoms can enhance good workplace performance.[17] Study conducted by Gianfranco De Lisio et al shows that in depressive patients major disturbances are noted in all areas of functioning including social, marital, vocational adjustment and leisure time activity. They also found that functions depending upon traditional roles in family or at work place tend to oscillate with variations in depression level and functions which require personal initiatives may remain abnormal in intra-episodic phase.[19] A study conducted by Spehar and Milakovic shows that patients with depression not only neglect the household work but also miss their job work because of depression their occupational functioning decreases. They also avoided meeting with relatives thus decrease in social connection; patients were dissatisfied and feel discontentment with job, family and friends.[31] Similarly another study conducted by Strine has found strong relationship between depression and impairment in health related qualities of life including; inadequate social and emotional support, dissatisfaction with life and disability.[32]

Intellectual functioning:

H₂: There will be significant impact of depression on intellectual functioning.

Table B2 depicts the Correlational values and significant difference of intellectual functioning among depressive patients in different depressive categories.

Result shows very low correlation of level of depression with level of intellectual functioning except for patients with extreme depression; positive correlation has found with moderate depression. Apart from this there is negative correlation. The difference is found significant except for patients with extreme depression.

Most of the time it is observed that as the depression level increases the level of intellectual functioning decreases because depressive patients are having certain difficulties in work performance. That means the level of depression is having impact on over intellectual functioning. Due to increased stressful condition there is reduction in attention and concentration level. Some patients with depression has identified with superior intellectual functioning.

Although the depression is having effect over Spearman's g factor but primary determinants of intellectual abilities are genetics, education and primary modifiers of intellectual abilities.

Mild depression:

In patients with mild depression most of the patients has identified with having grade 3 level of intellectual functioning which is average level of intellectual functioning. Only one patient is identified with having impaired (grade 5) intellectual functioning and few were identified with superior intellectual functioning. They were not having concentration problems while performing the task.

Moderate depression:

In patients with moderate depression most patients identified with having grade 3 level of intellectual functioning with lower range of scoring in average intellectual capability and some were identified with impaired intellectual functioning. Some patients were identified with difficulties with attention and concentration during task performance.

Severe depression:

In patients with severe depression; the patients were identified to have below average and in some cases average level of intellectual functioning. While performing task most were identified with decreased interest in performing task as the level of difficulty was increasing.

Extreme depression:

In patients with extreme depression most patients were identified with having below average intellectual functioning and some with impairment in intellectual functioning. But few were identified with superior intellectual functioning that is grade 2⁺ and grade 1. Some patients were found irritable during task performance and level of attention and concentration was reduced than comparing with others.

In this study it has been identified that 12.5% people having severe depression were intellectually superior; and 7.5% were having above average intellectual capacity.

Hence; second hypothesis is accepted.

These findings are supported by following studies.

A study conducted by Ali U on intellectual functioning of individuals with mental disorders including MDD, OCD and schizophrenia. The result shows that patients with OCD shows much less cognitive decline than depressive patients; although there is no significant difference.[4] Another study conducted at University of British Columbia suggests that major functioning impairments can be affected by cognitive dysfunction over administration of several neurocognitive tests.[24,25] In one article "why smarter people are more likely to be mentally ill" they

have identified 30 studies showing people with higher intellectual ability have more chances of getting mental illness.[29] Other study conducted by Plomin shows that intelligence is genetically inherent and education level and social class; social mobility are associated with level of intelligence except from psychiatric illness.[28]

Psychosocial and intellectual functioning:

H₃: There will be correlation between intellectual and psychosocial functioning of depressive patients.

Table B3 shows the Correlational values and significant difference of intellectual and psychosocial functioning among depressive patients in different depressive categories.

Result shows very low correlation of level of psychosocial functioning with level of intellectual functioning. In most categories no significance has been identified except for severe and moderate depression. But overall there is significant difference.

Although the level of intellectual and psychosocial functioning are affected by changes in level of depression; very low correlation has been found between these two variables but they are having impact over each-other. The correlation is positive among depressive patients so it can be said that as the level of psychosocial functioning increases; the level of intellectual functioning also increases. The difference is significant between the two variables. It is also found that in case of severe depressive patients they were having adjustment problem in society and they were having superior IQ levels. Similarly person with impaired intellectual functioning in severe and extreme depression has also found difficulties with social adjustment.

In this study it has been identified that 12.5% people having severe depression were intellectually superior; and 7.5% were having above average intellectual capacity who found difficulties in social adjustment.

Hence; third hypothesis is accepted.

The findings are supported by following studies;

A study conducted in Canada to assess psychosocial and neurocognitive functioning in unipolar and bipolar depression. The result shows that in case of severe mood disorder psychosocial and neurocognitive functioning was similar among MDD and BD patients during episode.[2] Another study conducted at University of British Columbia suggests that major functioning impairments can be affected by cognitive dysfunction over administration of several neurocognitive tests and assessment of psychosocial functioning they found that there is deficit in different domains associated with different measures or levels of psychosocial functioning.[24,25]

5. Conclusion

During this study it has been found that level of depression can affect the level of psychosocial and intellectual functioning. These variables are closely associated with each other. Depression can cause the major impact over areas of psychosocial functioning including; occupational functioning/ job performance, interpersonal relationship with friends and family and personal role performance. The level of intellectual functioning is associated with level of depression but intellectual functioning mainly depends upon primary factors like; genetics, learning ability and level of education. Highly intelligent people found to have problems in social adjustment especially when suffering from mental disturbances.

Practical Implication

- The finding of the present study will be useful for psychologists, psychiatrist, researchers and other related professional to correlate their findings; and for better understanding of patients, their behavior, adjustment problems and intellectual relationship with others.
- The result of the study will be useful in bringing general information among psychosocial and intellectual functioning of depressive patients.
- The study will helpful in developing suitable interventions for better psychosocial adjustment and improving intellectual functioning capacity.
- The study will be helpful in suggesting curative and preservative measures for the same.

6. Future Suggestions

- The research has been conducted on a limited group. Further research on similar study may be conducted on large sample size.
- The same studies can be conducted among different demographic variability to observe different cultural factors, factors related to family and work and environment, socio-demographic factors including age, marital status, etc.
- A study on treatment measures includes psychological management can be done.
- A follow-up study can be conducted to assess the impact of reduction of symptom severity over psychosocial and intellectual functioning.
- Further studies can be conducted for different categorization of depressive disorders including; bipolar disorders, geriatric depression, childhood depression, dysthymia, cyclothymia, etc.
- Other psychological tools can be use for measuring intellectual functioning; because of limitations in norms of Raven's progressive matrices

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