

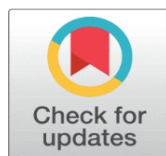
PERCEIVED STIGMA, BEHAVIOURAL PROBLEM AND DEPRESSION AMONG INDIVIDUALS WITH SUBSTANCE ABUSE ATTENDING SELECTED DE-ADDICTION CENTRES, KOLKATA, WEST BENGAL

Bandana Mondal ¹✉ , Manika Mazumder ²✉ , Alpana Rani Das ³✉ 

¹ Clinical Instructor, Health & Family Welfare Department, College of Nursing, Medical College & Hospital, Health University, Kolkata, West Bengal, India

² Professor, College of Nursing, Nil Ratan Sirkar Medical College and Hospital, Kolkata, West Bengal, India

³ Senior Faculty, College of Nursing, Medical College and Hospital, Kolkata, West Bengal, India



Received 22 May 2024
Accepted 02 July 2024
Published 31 July 2024

Corresponding Author

Bandana Mondal,
mbandana45@gmail.com

DOI

[10.29121/granthaalayah.v12.i7.2024.5697](https://doi.org/10.29121/granthaalayah.v12.i7.2024.5697)

Funding: This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Copyright: © 2024 The Author(s). This work is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/).

With the license CC-BY, authors retain the copyright, allowing anyone to download, reuse, re-print, modify, distribute, and/or copy their contribution. The work must be properly attributed to its author.

ABSTRACT

Substance abuse is a considerable public health problem throughout the world with vast implication on public health. Its real impact is on the social and family dynamics that underlie its communities.

Aim: This study aims to assess Perceived stigma, behavioural problem and depression among individuals with substance abuse attending selected de-addiction centers, Kolkata, West Bengal.

Methods: A Descriptive survey design was adopted and 200 individuals with substance abuse were selected using simple random sampling technique. Data were collected using semi structured demographic Proforma, standardized perceived stigma of substance abuse scale (PSAS), standardized behavioural problem scale (BPS) and Beck's depression Inventory.

Result: The findings revealed that majority 81% individual with substance abuse had moderate perceived stigma whereas 18% had high perceived stigma and 1% had low perceived stigma and (85%) individuals with substance abuse were mild behavioural problem and (15%) in individuals with substance abuse were moderate behavioural problem and (41.5%) individuals had moderate depression, (28%) had borderline clinical depression, (27.5%) had mild mood disturbance, (3%) had these ups and downs were considered normal. Result showed that there was significant association between level of depression with Regularity of treatment, life style practices with monthly family income and educational status of participants.

Conclusion: The current study concludes that perceived stigma, behavioural problems and depression among individuals with substance abuse is effective to motivational prevention in the field of psychiatry nursing.

Keywords: Perceived Stigma, Behavioural Problem, Depression and Substance Abuse



1. INTRODUCTION

Substance abuse is a major public health problem throughout the world with vast implication on public health. According to National Mental Health Survey (NMHS) conducted in 12 states of India, the prevalence of substance use disorders is 22.4% in those above 18 years (20.9% for alcohol use disorders, 4.6% for tobacco

use disorders, 0.6% for illicit substance use disorders). Substance abuse is a chronic, relapsing condition. It includes the use of illicit substances such as alcohol, tobacco, diversion of prescribe drugs, as well as illicit drugs. There is a pressing need to improve short-and long-term treatment outcome. [Sidana et al. \(2021\)](#) It is well recognized as a complex psychological phenomenon an substance dependence is considered as a 'family disease. It affects the individual as well as those around physically, emotionally and financially. It also leads to distress and social and occupational dysfunction.

According to the World Health Organization (WHO) substance abuse is continual or sporadic drug use inconsistent with or unrelated to perfect clinical exercise. [World Health Organization \(1994\)](#)

2. BACKGROUND OF THE STUDY

This survey record additionally advocate that Alcohol (21.4%) was the primarily substance used (apart from tobacco) succeeded by cannabis (3.0%) and opioids (0.7%). 17 to 26% of alcohol users qualified for ICD 10 diagnosis criteria of dependence, translating to average prevalence of about 4%. Tobacco use prevalence was high at 55% among males, with maximum use in the age group of 18-50 years [Luoma et al. \(2002\)](#).

The Drug Abuse Monitoring system, which evaluated the primary substance of abuse in patient treatment centres found that major substance use were found that alcohol (43.9%), opioids (26%) and cannabis (11.6%). So, need of the study should be motivational to prevent substance abuse which depends on the stigmatisation of the Abuser.

Perceived stigma is fear of being discriminated towards or the worry of enacted stigma and arises from society's perception [Luoma et al. \(2020\)](#). Research on stigma is vast and focussed on stigma directed toward members of stigmatized group defined by race and ethnicity, homosexuality, region, and mental illness, to name a few. Outcomes of those research imply that reviews of stigma, whether or not enacted, perceived, or self-stigma, may have extreme effects for people. Some of the consequences of stigma for those with behavioral health problems include difficulties obtaining employment [Fiato \(2005\)](#). The alcohol abuse and other drugs results in a multiple of problems for the abuser, family members and the wider community. Stigma in opposition to substance use could be the potential barrier for human beings with substance use to seek expert help. Perceived stigma is worry of being discriminated in opposition to or the fear of enacted stigma and arises from society's perception. Substance use-associated stigma has additionally affect the medical population [Kulesza et al. \(2013\)](#).

The problem of medicine abuse has preoccupied scholars since time old. It is a psychosocial problem that affects every society and threatens the future of the youthful people. Drug dependency has turned numerous youthful people into psychopaths, zombies and culprits hence the subject to exploration.

Depressive complaints are constantly setup as a comorbidity among cases with substance abuse. Utmost of the time it is reported as under diagnosed and a majority of cases go undressed. Numerous studies have indicated that comorbid depressive symptoms play a major part in the prognosis of substance use complaint and the relapse has been setup to be greater in patients who have a comorbid depression. The present study seeks to determine the comorbidity of depression in cases with substance abuse and their socio-demographic features.

It is important to realize that even the families of the substance abuser needs help. The family is often viewed as the basic source of strength, which provides nurturance and support for its individual members as well as ensuring stability and generational continuity for community and culture. In reality, the family is a long way greater complex. Drinking and family functioning are related [Roberts & Linney \(2000\)](#), although the relationship may be unfruitful, complimentary, iterative, or incidental to other causes. There are several family problems that are likely to occur with an individual's alcohol abuse, including intimate partner violence, conflict and low relationship satisfaction, economic and legal vulnerability, and child risks [Great Britain \(2010\)](#).

While working in Psychiatry ward, it is seen that the substance abuse client is considered devalued and unimportant to others then he beliefs negative thoughts. Some of consequences of perceived stigma leads to behavioural problem and depression. The stigma as a barrier to recovery from addiction. So, the investigator think that it is important to assess perceived stigma, behavioural problem and depression among individuals with substance abuse persons.

3. PROBLEM STATEMENT

Perceived stigma, behavioural problem and depression among individuals with substance abuse attending selected de-addiction centres, Kolkata, West Bengal.

4. OBJECTIVES OF THE STUDY

- 1) To assess perceived stigma among individuals with substance abuse
- 2) To assess the behavioural problem among individuals with substance abuse
- 3) To determine the level of depression among individuals with substance abuse
- 4) To find out association between perceived stigma with selected demographic variables.
- 5) To find out association between depression with selected demographic variables.

5. METHODOLOGY

Quantitative approach was adopted with descriptive survey design. The study was conducted from 13.02.23 to 09.03.23. The subjects were people between 18 - 50 years of age attending de-addiction centre of Institute of psychiatry, Lumbini Park Mental Hospital, Pavlov Hospital, Kolkata, West Bengal.

Simple random sampling technique was adopted to prefer 200 samples, were met the designated inclusion and exclusion criteria. Samples were selected from prepared frame through lottery method.

Ethical clearance was taken from Institutional Ethical Committee of Medical College and Hospital, Kolkata, permission for data collection were taken from MSVP of Pavlov and Lumbini Park Mental Hospital, Kolkata and Permission also was taken from Director of Institute of Psychiatry, Kolkata, West Bengal. Informed consent was taken from all participants in their language. Confidentiality and anonymity was maintained.

Four validated and reliable tools were developed and three standard tool used for data collection. Demographic Proforma were used to collect information regarding demographic characteristics, Standardised perceived Stigma of Substance Abuse Scale (PSAS), Standardised Behavioural problem Scale (BPS), Beck's Depression Inventory.

Data was collected through interview technique.

6. FINDINGS OF THE STUDY

6.1. FINDING RELATED TO PERCEIVED STIGMA

The current study found that, Majority 81% of substance abuse individual had moderate perceived stigma whereas 18% had high perceived stigma and 1 % had low perceived stigma. A study conducted by Belete Het al on "Perceived stigma and associated factors among adults with problematic substance use in Northwest Ethiopia" 36.1% had low-perceived stigma and the rest had high perceived stigma. These findings fully supported with present study.

6.2. FINDING RELATED TO BEHAVIOURAL PROBLEMS

The current study established that (85%) individuals with substance abuse were mild behavioural problem and (15%) in individuals with substance abuse were moderate behavioural problem.

A study conducted by Poudel A et al, on Psychosocial problems among individuals with substance use disorders in drug rehabilitation centers, Nepal. The study focused on higher problems in substance use and peer relationship domains while less in work adjustment domain though the score were inconsistent.

6.3. FINDINGS RELATED TO LEVEL OF DEPRESSION

The present review found that Most (41.5%) individuals with substance abuse had moderate depression, (28%) had borderline clinical depression, (27.5%) had mild mood disturbance, (3%) had these ups and downs were considered normal.

[Pradhan et al \(2013\)](#) conducted a cross-sectional study on depression among patients of substance use disorder. Among 42 subjects, 31 (73.8 %) were found to be suffering from Depression among which 19 (45.2%) had mild to moderate depression and 12 (28.6%) had severe depression. This study partially supported with present study.

In the present study, The significant relation between perceived stigma and behavioural problems as the t value is greater than table value 1.96 with df 198 at 0.05 level of significance. Study conducted by Latkin,2010 Strong relationship between drug use stigma IV drug users and HIV risk behaviours $p < .001$.

7. DISCUSSION

The current review found that, Majority 81% of substance abuse individual had moderate perceived stigma whereas 18% had high perceived stigma and 1 % had low perceived stigma. A study conducted by Belete Het al on "Perceived stigma and associated factors among adults with problematic substance use in Northwest Ethiopia" 36.1% had low-perceived stigma and the rest had high perceived stigma. This findings complete supported with present study.

Hadera et al. (2019) conducted a community-based cross-sectional survey was conducted at Bahir Dar town, northwest Ethiopia cross-sectional study design study on to assess the magnitude and associated factors of perceived stigma among adults with mental illness in Ethiopia. A total of 384 participants were interviewed and the response rate was 100%. The prevalence of high and low perceived stigma was 51% and 44%, respectively. This findings partially supported with the present study.

The present study found that (85%) individuals with substance abuse were mild behavioural problem and (15%) in individuals with substance abuse were moderate behavioural problem.

Strandheim A et al, The influence of behavioural and health problems on alcohol and drug use in late adolescence - a follow up study of 2 399 young Norwegians Prospective population based cohort study of 2 399 adolescents attending the Young-HUNT study, aged 13-15 at baseline in 1995/97, and 17-19 at follow-up 4 years later. At follow-up 19% of the students drank alcohol once a week or more frequently. This review uphold the opinion that especially conduct problems.

The present study found that Most (41.5%) individuals with substance abuse had moderate depression, (28%) had borderline clinical depression, (27.5%) had mild mood disturbance, (3%) had these ups and downs were considered normal.

Pradhan et al (2013) conducted a cross-sectional study on depression among patients of substance use disorder. Among 42 subjects, 31 (73.8 %) were found to be suffering from Depression among which 19 (45.2%) had mild to moderate depression and 12 (28.6%) had severe depression. This study partially supported with present study.

In the present study, The significant relation between perceived stigma and behavioural problems as the t value is greater than table value 1.96 with df 198 at 0.05 level of significance. Study conducted by Latkin,2010 Strong relationship between drug use stigma IV drug users and HIV risk behaviours $p < .001$.

In the present study statistically significant association between level of depression with selected demographic variables (Regularity of treatment) as the calculated value of chi square is greater than table value of chi square at 0.05 level of significance. Study conducted by Luoma,2010 The measure of perceived stigma was significantly associated with internalized stigma $p < 0.0001$. this was fully supported with present study.

8. CONCLUSION

Based on the findings of the present study, it can be concluded that majority of the people average perceived stigma followed by greater perceived stigma & lesser perceived stigma. In the domain i.e. highest mean% of behavioural externalising problems and internalising behavioural problems. Majority of individuals had moderate depression followed by borderline clinical depression, mild mood disturbance and these ups and downs were considered normal. There is statistically significant association between level of depression with selected demographic variables (Regularity of treatment). There was a positive relation between perceived stigma & Behavioural problem individuals with substance abuse

9. LIMITATION

The study has several limitations.

The outcome of this study shall not be universal to apply to the county wide. The study with its boundary is only 200 sample a general analysis carried out on de-

addiction center. Consequently, other investigations on the same topic can be reproduced in other countries. The study subjects are limited to few settings.

10. RESULTS

Computed data are organized and presented under various subheadings according to objectives of the study.

10.1. DEMOGRAPHIC CHARACTERISTICS

Table 1

Table 1 Frequency & Percentage Distribution of Demographic Characteristics of Individual with Substance Abuse		
Category	Frequency	Percentage (%)
Age (in years)		
18-26	30	15
27-34	69	34.5
35-42	61	30.5
43-50	40	20
Educational status		
No formal education	33	16.5
Primary	75	37.5
Secondary	68	34
Higher secondary	20	10
Graduate & above	4	2
Occupation		
Unemployed	49	24.5
Independent business	95	47.5
Government service	35	17.5
Private job	21	10.5
Marital status		
Unmarried	87	43.5
Married	113	56.5
Family Type		
Nuclear	117	58.5
Joint	83	41.5
Residence		
Rural	81	40.5
Urban	119	59.5
Family History of substance abuse		
Yes	71	35.5
No	129	64.5
Types of substance abuse		
Alcohol	42	21
Marijuana	51	25.5
Vaping	51	25.5
Illicit drug	56	28
Duration of substance use		
1-5 yrs	83	41.5
6-10 yrs	117	58.5

Co- addictor of substance abuse		
Own	64	32
Friend	130	65
Relatives	6	3
Regularity of treatment		
Yes	97	48.5
No	103	51.5

Figure 1

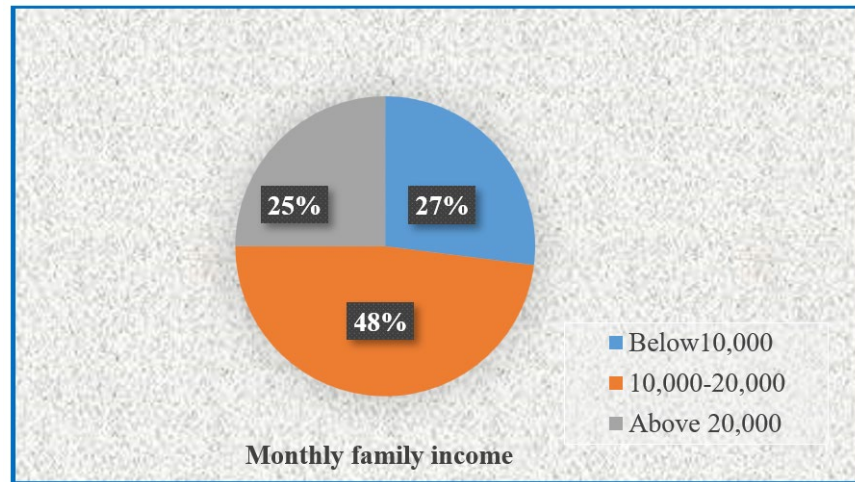


Figure 1 Pie Chart Showing Frequency and Percentage Distribution of Monthly Family Income Among Individuals with Substance Abuse. 48% Belonged to Monthly Family Income Rs. 10,000-20,000, 27% Belonged to Rs. Below 10,000 and 25% Belonged to Rs. Above 20,000. Among Individuals with Substance Abuse.

Table 2

Table 2 Frequency & Percentage Distribution of Perceived Stigma Among Individuals with Substance Abuse n=200		
Perceived stigma	Frequency	Percentage (%)
Low (< 19)	2	1
Moderate (19-26)	162	81
High (>26)	36	18

Table 2 shows that majority 81% individual with substance abuse had moderate perceived stigma whereas 18% had high perceived stigma and 1% had low perceived stigma.

Table 3

Table 3 Frequency & Percentage Distribution of Behavioural Problem Among Individuals with Substance Abuse n=200		
Behavioural problem	Frequency	Percentage (%)
Mild (< 30)	170	85
Moderate (30-40)	30	15
Severe (>40)	Nil	—

Table 3 shows that (85%) individuals with substance abuse were mild behavioural problem and (15%) among individuals with substance abuse were moderate behavioral problem.

Table 4

Table 4 Domain Wise Behavioral Problem of Among Individuals with Substance Abuse n=200					
Domain Rank	Score range	Max. score	Min. score	Mean	Mean%
Externalising					
Problems 1	5 – 25	16	7	11.32	45.3
Intranalising					
Problems 2	May-25	14	7	10.2	40.3

Table 4 shows that highest mean% of behavioural externalising problems score was 45.3% and lowest mean% of internalizing behavioural problems score was 40.3%.

Table 5

Table 5 Frequency & Percentage Distribution of Level of Depression Among Individuals with Substance Abuse n=200			
Score range	Level of depression	Frequency	Percentage (%)
1-10	These ups and downs are considered normal	6	3
11-16	Mild mood disturbance	55	27.5
17-20	Borderline clinical depression	56	28
21-30	Moderate depression	83	41.5
31-40	Severe depression	Nil	—
Over40	Extreme depression	Nil	—

Table 5 shows that (41.5%) individuals had moderate depression, (28%) had borderline clinical depression, (27.5%) had mild mood disturbance, (3%) had these ups and downs were considered normal.

Table 6

Table 6 Area- Wise Rank Order of Level of Depression Score Among Individuals with Substance Abuse n=200					
S. No.	Area	Maximum possible score	Obtain mean score	Mean percentage	Rank Order
1	Sadness	3	0.55	18.33	20
2	Pessimism	3	0.545	18.17	21
3	Part failure	3	0.695	23.17	19
4	Loss of pressure	3	0.96	32	5
5	Guilty feeling	3	1.16	38.67	1
6	Punishment feeling	3	0.90	30	15
7	Self -dislike	3	0.85	28.33	16
8	Self -criticalness	3	0.95	31.67	7
9	Suicidal thought or wishes	3	1	33.33	2
10	Crying	3	0.834	27.8	18
11	Agitation	3	0.84	28	17
12	Loss of interest	3	0.975	32.5	4

13	Indecisiveness	3	0.99	33	3
14	Worthlessness	3	0.942	31.4	9
15	Loss of energy	3	0.925	30.83	12
16	Change in sleeping Pattern	3	0.915	30.5	13
17	Irritability	3	0.945	31.5	8
18	Change in appetite	3	0.91	30.33	14
19	Concentration difficulty	3	0.955	31.83	6
20	Tiredness or fatigue	3	0.935	31.17	11
21	Loss of interest in sex	3	0.940	31.33	10

Table 6 shows that maximum possible score, obtained mean, mean% and rank order of 21 items questionnaire of Beck's depression inventory response given by the individuals with substance abuse. The highest mean % (38.67) individuals with substance abuse guilty feeling of level of depression and lowest mean % (18.17) pessimism of level of depression.

Table 7

Table 7 Relationship Between Perceived Stigma with Behavioural Problem Among Individuals with Substance Abuse n=200

Variable	Mean	Median	Corr. Coeff (r)	t value	P.value
Perceived stigma	24.74	25	0.162	2.31	.021
Behavioural problem	21.52	22			

Table 7 shows that there was a weak positive relation between perceived stigma & Behavioural problem as the correlation between them is 0.162 & P. value is .021. There is statistically significant relation at 0.05 level of significance.

Table 8

Table 8 Relationship Between Perceived Stigma with Depression Among Individuals with Substance Abuse n=200

Variable	Mean	Median	Corr. Coeff (r)	t value	P.value
Perceived stigma	24.74	25	-0.138	1.96	.051
Depression	18.76	19.50			

Table 8 shows that there was a negative relation between perceived stigma & depression as the correlation between them is -0.138 at 198 degree of freedom, where the calculated values 1.96 & P. value is .051. So we can infer that if the perceived stigma is low then depression level will be low.

Table 9

Table 9 Relationship Between Behavioural Problem with Depression Among Individuals with Substance Abuse n=200

Variable	Mean	SD	Median	Corr. Coeff (r)	t. value	P. value
Behavioural problem	21.52	2.718	22	-0.085	1.20	.231
Depression	18.76	4.234	19.50			

Table 9 shows that there is a negative relation between perceived stigma & Behavioural problem as the correlation between them is -0.085 at 198 degree of freedom, where the calculated values 1.20 is less than the table value & P. value is .231.

231. So we can infer that if the behavioural problem is low then depression level will be low.

Table 10

Table 10 Association Between Perceived Stigma with Selected Demographic Variables					
n=200					
Category	Stigma		X²	DF	P. Value
	< median	≥ median			
Age (in years)					
18-26	14	16	2.649	3	.448
27-34	20	41	0.448		
35-42	13	27			
43-50					
Educational status					
No formal education	12	21	2.496	4	.645
Primary	29	46			
Secondary	25	43			
Higher secondary	7	13			
Graduate & above	3	1			
Occupation					
Unemployed	20	29	2.421	3	.489
Independent business	31	64			
Government service	16	19			
Private job	9	12			
Marital status					
Unmarried	35	51	0.584	1	.444
Married	40	73			
Family Type					
Nuclear	43	74	0.186	1	.666
Joint	33	50			
Monthly family income					
Below Rs 10,000	20	34	0.642	2	.725
Rs 10,000-20,000	39	57			
Above Rs 20,000	17	33			
Residence					
Urban	43	76	0.434	1	0.510
Rural	33	48			
Types of substance abuse					
Alcohol	21	21	7.673	3	.053
Marijuana	19	32			
Opioids	12	39			
Illicit drug	24	32			
Duration of substance use					
1-5 yrs	33	50	0.186	1	.666
6-10 yrs	43	74			
Co-addictor of substance abuse					
Own	22	42	0.807	2	.667
Friend	51	79			
Relatives	3				

Regularity of treatment					
Yes	41	56	1.456	1	.227
No	35	68			

Table 10 shows that there are no statistically strong relation between perceived stigma with selected demographic variables as the calculated value of chi square is lower than table value of chi square at 0.05 level of significance.

Table 11

Table 11 Association Between Level of Depression with Selected Demographic Variables n=200					
Category	Level of depression		X ²	DF	P. Value
	< median	≥ median			
Age (in years)					
18-26	11	19	2.912		.405
27-34	37	32			
35-42	30	31			
43-50	22	18			
Educational status					
No formal education	14	19	2.630	4	.621
Primary	38	37			
Secondary	33	35			
Higher secondary	12	8			
Graduate & above	3	1			
Occupation					
Unemployed	24	28	0.877	3	.830
Independent business	46	49			
Government service	20	15			
Private job	10	11			
Marital status					
Unmarried	43	43	0.004	1	.949
Married	57	56			
Family Type					
Nuclear	54	63	1.166	1	.666
Joint	46	37			
Monthly family income					
BelowRs 10,000	31	23	2.646	2	.266
Rs 10,000-20,000	48	48			
AboveRs 20,000	21	29			
Residence					
Urban	41	40	0.021	1	.884
Rural	59	60			
Family history of substance abuse					
Yes	36	35	0.022	1	.882
No	64	65			
Types of substance abuse					
Alcohol	20	22	0.291	2	.864
Marijuana	25	26			
Opioids	27	24			
Illicit drug	28	28			

Duration of substance use					
1-5 yrs	45	38	1.009	1	.315
6-10 yrs	55	62			
Co-addictor of substance abuse					
Own	34	30	1.194	2	.550
Friend	62	68			
Relatives	4	2			
Regularity of treatment					
Yes	57	40	4.541	1	.033
No	45	58			

Table 11 shows that there is consequential association between level of depression with Regularity of treatment as the calculated value of chi square is greater than table value of chi square at 0.05 level of significance.

CONFLICT OF INTERESTS

None.

ACKNOWLEDGMENTS

None.

REFERENCES

- Fiato, R. (2005). Domestic Violence and Alcohol Abuse: Couples Therapy Treatment Programs. State University of New York Empire State College.
- Great Britain (2010, Jul 2). Department of Health, Great Britain. Parliament. House of Commons. Tackling Inequalities in Life Expectancy in Areas with the Worst Health and Deprivation: Department of Health. The Stationery Office.
- Hadera, E., Salelew, E., Girma, E., Dehning, S., Adorjan, K., & Tesfaye, M. (2019, Mar 27). Magnitude and Associated Factors of Perceived Stigma Among Adults with Mental Illness in Ethiopia. *Psychiatry Journal*. <https://doi.org/10.1155/2019/8427561>
- Kulesza, M., Larimer, M.E., & Rao, D. (2013, May 1). Substance use Related Stigma: What we Know and the Way Forward. *Journal of Addictive Behaviors, Therapy & Rehabilitation*, 2(2). <https://doi.org/10.4172/2324-9005.1000106>
- Luoma, J.B., Chwyl, C., Bathje, G.J., Davis, A.K., & Lancelotta, R. A. (2020, Aug 7). Meta-Analysis of Placebo-Controlled Trials of Psychedelic-Assisted Therapy. *Journal of Psychoactive Drugs*, 52(4), 289-99. <https://doi.org/10.1080/02791072.2020.1769878>
- Luoma, J.B., Martin, C.E., & Pearson, J.L. (2002, Jun 1). Contact with Mental Health and Primary Care Providers Before Suicide: A Review of the Evidence. *American Journal of Psychiatry*, 159(6), 909-16. <https://doi.org/10.1176/appi.ajp.159.6.909>
- Sidana, A., Walia, N., Jaswal, S. (2021). Ten Years Outcome of In-Patient with Substance use Disorder-A Study from North India, 245-252.
- World Health Organization (1994). *Lexicon of Alcohol and Drug Terms*. Inlexicon of Alcohol and Drug Terms.