

Original Research Article**A Cross Sectional Study on Assessment of Attitude Among Health Professionals Towards the Problem of Substance Abuse at Ananta Hospital, Rajsamand****B. Agarwal¹, M. Mazumdar², D. Sharma³, S. Kumar^{4*}, A. Khatri⁵**¹Associate Professor, Dept of Psychiatry, Ananta Institute of Medical Science and Research Centre, Rajsamand, Rajasthan²Assistant Professor, Dept of Psychiatry, Dr Kiran C Patel Medical College and Research Institute, New Civil Hospital, Bharuch Gujarat³Stacionian, Dept of Community Medicine, Ananta Institute of Medical Science and Research Centre, Rajsamand, Rajasthan⁴Assistant professor, Dept of Psychiatry, Ananta Institute of Medical Science and Research Centre, Rajsamand, Rajasthan⁵Professor, Dept of Psychiatry, Ananta Institute of Medical Science and Research Centre, Rajsamand, Rajasthan

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Abstract

Background: Drug abuse affects the health and lives of millions of individuals across the world. Discrimination faced by substance users and stigmatization becomes a barrier for them thus these patients do not receive the required care and treatment they deserve. The negative perception of healthcare professionals leads to poor therapeutic alliance between them and the patients of substance use. Current study aims to determine and assess the attitudes of the health professionals towards patients with substance use problems and to identify factors causing diverse attitudes of health professionals towards these patients.

Method: A questionnaire based cross sectional study was undertaken at Ananta hospital Rajsamand (a tertiary health care centre) which included 134 health professionals both doctor and nursing staff for a duration of one year who provided their consent for this project. The socio- demographic details of every participant was collected and all of them were given the DDPPQ tool which assessed their attitudes and perception towards drug and drug use problems.

Results: Younger age group of health professionals showed better outlook towards patients of drug abuse. A linear regression of gender, professional roles (i.e. doctors and nurses), past history of substance abuse and known history of substance abuser in the family with the principal component does not yield any significant results. Majority of the participants had either neutral opinion or positive opinion towards the problem of drug use and the drug users.

Conclusions: Healthcare professionals with age on the lower side had more positive regards and significantly positive attitudes towards the problems of substance use and therefore the

therapeutic compliance was better. Healthcare delivery needs unbiased and non-judgmental attitude of healthcare professionals towards patients of substance abuse, so in an attempt to provide holistic approach and care that overlooks socio-demographic and clinical profiles, professionals should have adequate and appropriate training and exposure accordingly.

Keywords: Professionals, nursing, staff, substance, drug, perception, attitudes, stigmatization.

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Introduction

Drug abuse is a global phenomenon which affects almost every country with a variable extent. Abuse of illicit drug affects the health and lives of many individuals across the globe. The criminalization of this addictive behavior damages the reputation of the engaged person and it also deters other people, leading to stigmatization of the problem in the society. Stigmatization also discourages illicit drug users from getting health care due to fear of poor treatment by health care providers or fear of trouble with the authorities[1,2]. While stigma and discrimination may serve as deterrents to illicit drug use, these attitudes also contribute to discrimination and stigmatization experienced by illicit drug users which may be bad for drug user's health[3]. Negative attitudes of health professionals towards patients with an alcohol or other drug addiction are known to lead to poor communication between professional and patient, diminished therapeutic alliance, and mis-attribution of physical illness symptoms to substance use problems, also referred to as diagnostic overshadowing[4,5].

In this scenario, medical professionals are key persons in the provision of care for persons who exhibit problems related to use of the substances of abuse. Personal factors[6] and deficient medical education about addiction in health professionals[7] influence the under-diagnosis of substance abuse disorders. Studies have found that physicians were

significantly less satisfied when caring for patients with drug problems compared to other illnesses[8]. A study on nurses found that nurses struggled with the care for patients who use illicit drugs and they had less motivation, satisfaction, role support and education[9]. Another study found that staff who had received training held fewer negative attitudes towards illicit substance users regardless of their length of clinical work experience or type of work setting[10]. Another study found that health professionals' regard was lowest for patients with drug and alcohol problems, lowest regard was found among physicians who did not work in specialized addiction services[11]. This study found that specially trained personnel's in this field such as psychologists, social workers, and professionals in the addiction services showed the highest regard while physicians who did not work in specialized addiction services had lowest regard. People with drug related disorders deserve the same level of care as patient with any other health condition. Health service need to be able to identify drug use and drug use disorder at an early stage and provide prevention, treatment and harm reduction intervention.—We could not find any study in our region addressing health professional attitudes towards persons with problems related to substance use.

Aims and Objectives

Current study aims to assess and determine the attitudes of the health professionals

towards patients with substance use problems and to identify factors causing diverse attitudes of health professionals towards these patients.

Methods

Study area

The study was conducted at Ananta Hospital Rajsamand (attached to Ananta Institute of Medical Science and Research Centre, Rajsamand, Rajasthan) a tertiary care hospital.

Study Design

Questionnaire based cross sectional study

Study Participants

Health Professionals (Including doctors and nursing staff)

Study duration

One Year, September 2019 to August 2020.

Sample size

A total population of health care professional of 200 working in Ananta Institute of Medical Science and Research Centre, Rajsamand, Rajasthan, a tertiary care hospital. Minimum of 134 participants were expected to participate according to the following calculation.

$$N^* = N \cdot X / (X + N - 1),$$

where,

$$X = Z^2_{1-\alpha} p(1-P)/d^2$$

where alpha (α) = 0.05, estimated proportion (p) = 0.50, estimated error (d) = 0.05 and N is the population size

The Finite Population Correction is used to adjust a variance estimate when sampling without replacement.¹⁵

A stratified random sampling technique has been used for collection of data. A validated

22-item DDPPQ questionnaire tool has been used in the study.

Statistical analysis

Questionnaire data was analyzed using SPSS version 24. Socio demographic data were summarized using frequencies and percentages. Means and standard deviation were used for continuous variables. Mann Whitney U test was used to compare the difference among professional groups i.e. doctors and nurses. The relationship between DDPPQ scores and other relevant variables was analyzed by using Pearson Product-Moment Correlation Co-efficient. The regression analysis has been done to find out relationship between independent and dependent variables. Statistical significance was taken at the 5% level.

Data Collection Procedure

The 22-item validated version of Drug and Drug problems perception questionnaire (DDPPQ) instrument was used for the study[12]. The validated DDPPQ, comprises of 22 items and is a shorter questionnaire, having retained only the most reliable items from the original instrument. The items of the validated questionnaire are numbered consecutively from one to twenty-two. The validated DDPPQ is a self-complete 'paper and pencil' questionnaire. Respondents are asked to rate their level of agreement on a series of 22 statements about working with people who use licit or illicit drugs in a nontherapeutic way. There are seven possible responses to each item on a scale of Strongly agree' to 'Strongly disagree'. Low scores denote positive attitudes, whereas high scores are associated with negative views. Several of the items are worded negatively. These are Items 15, 16, 17 and 18. For the purpose of this study, the DDPPQ were expressed on a 5-point Likert scale ranging from 1 = strongly agree, 2 = agree, 3 =neither agree nor disagree, 4 = disagree to 5= strongly disagree

.A 5 - point Likert-type scale instead of 7-point was used to increase response rate and response quality along with reducing respondents' frustration level[13]. Factor structure of the validated DDPPQ has yielded its six factors which are role adequacy, motivation, role legitimacy, task specific self-esteem, role support and work satisfaction

Study Variables

The independent variables in the study are the socio-demographic characteristics of the study participants such as gender, age, profession, work motivation and role support of health professional. The dependent variables, attitude and perception are measured by six factors/ subscale measure (using 5- point Likert scale) in the DDPPQ. Questionnaire data was analyzed using SPSS version 24. Socio-demographic data were summarized using frequencies and percentages.

Data was analyzed by using unrelated T-test, Mann Whitney U test and Pearson product moment correlation coefficient.

For the questionnaire survey, 22 items of validated version of DDPPQ questionnaire was distributed individually to the 152 professional group members in a sealed envelope and returned back in same sealed condition in order to maintain privacy of participants. One hundred and thirty-four participants returned the completely filled up questionnaire. All professional group members i.e. both doctors and nursing staff members responses to the given DDPPQ questionnaire were calculated to give a total attitude score. The minimum score for the DDPPQ is 22 and the maximum score is 110. The higher the score obtained indicates an increasingly more negative attitude.

Results

Table 1: gives description of number of participants according to the gender as well their professional roles.

Group	Number (Total=134)	Percentage
Doctors	85	63.4 %
Males	53	39.5 %
Females	32	23.8 %
Nursing staff	49	36.5 %
Males	30	22.3 %
Females	19	14.1 %

Table 1. Profile of the Sample

Table 2: shows profile of the sample according to professional group and gender.

	Number of responses	Score Range	Mean Score (SD)	Z score	P* Value
Doctors	85	24-76	49.63 (8.95)	-0.30	0.75
Nursing Staff	49	33-68	49.46 (9.52)		

Table 2. The DDPPQ Score Range for Professional Groups

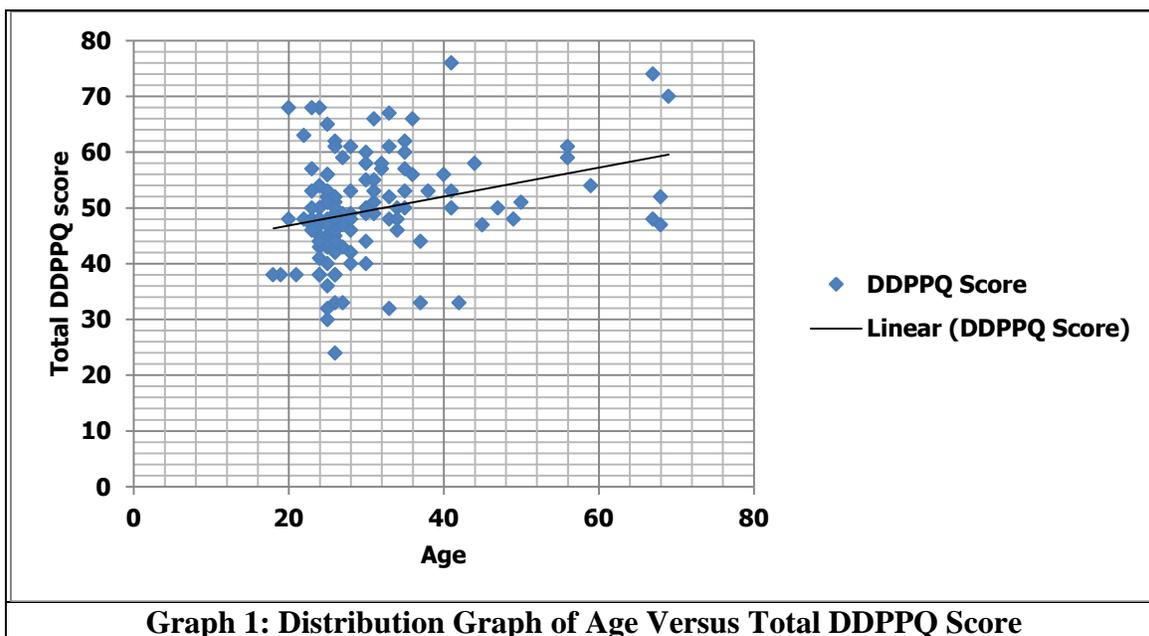
Mann Whitney U test. * The result is significant at $p < 0.05$

Table 2 shows the DDPPQ score range for the participants. A Mann-Whitney U test was conducted to compare DDPPQ scores between doctor and nursing staff. The result is not significant at $p < 0.05$. There is no difference between the groups.

Age of Participants Versus DDPPQ Score

Mean age of the total sample was 30.56 years (standard deviation 10.38). Mean age for doctors' group was 32.85 years (standard

deviation= 11.86) and for nursing staff group was 26.59 years (standard deviation=5.21). There is significant correlation between the age of the professional group members i.e., both doctors and nursing staff members and their respective DDPPQ scores when calculated using Pearson Product – Moment Correlation Co-efficient (2 tailed) $r = 0.29$, $n = 134$, $p = 0.00067$.



The graph indicates weak positive correlation between age of the participants and their corresponding DDPPQ score.

Family History versus DDPPQ Score

Participants were also asked if they had any family history of substance abuse and past history of substance abuse.

Table 3: Comparisons among Health Professional having Family History of Substance Abuse and Past History of Substance Abuse

	Response	Number of Responses	Range	Mean (Standard Deviation)	Z Score	p*Value
Family history of substance abuse	Positive	22	43-63	52.09(5.97)	-1.786	0.074
	Negative	112	24-76	49.08(9.57)		
Past history of substance abuse	Positive	23	38-65	50.17(7.16)	-0.393	0.694
	Negative	111	24-76	49.45 (9.51)		

Mann Whitney U test. * The result is significant at $p < 0.05$

In Table 3, comparisons among Health professional having family history of substance abuse and past history of substance abuse are described. Using Mann-Whitney U test, we found that there is no statistical difference between the groups of health professional having past history of substance abuse and health professional who don't have past history of substance and the groups of

health professional having family history of substance abuse and health professional who don't have family history of substance abuse. A linear regression of gender, professional roles (i.e., doctors and nurses), past history of substance abuse and known history of substance abuser in the family with the principal component has not yielded any significant results.

Table 4: Health Professional Therapeutic Commitments towards Drug Abusing Patients on various Subscales of DDPPQ and total Mean Score

Subscales	Number of Questions	Mean Score Per Question (LikertScore = 1-5)	Standard Deviation
Role adequacy	8	1.99	0.65
Role Legitimacy	3	1.85	0.71
Role support	3	1.92	0.64
Work satisfaction	4	2.18	0.76
Motivation	1	3.58	1.17
Task specific Self Esteem	3	3.39	1.07
Total Score	22	49.57 (possible score 22-110)	9.13

Note: lower score denotes higher therapeutic commitment.

Table – 4 shows a mean of total score of 49.57 (SD = 9.13) with a possible score between 22 and 110. **The diverse attitudes of Health Professionals towards substance abusers**

Table 5: Percentage of Participants in three Categories

	Frequency	Percentage
Positive ^a	36	26.86
Neutral ^b	91	67.92
Negative ^c	7	5.22
	134	100

a= Total score from 22 to 44; b) total score from 45 to 66; c) total score from 67 to 110

The total DDPPQ scores were divided into three categories i.e. (1) Positive perception (distinctly defined perception of role), (2) Negative perception (lack of distinctly defined perception of role) and (3) neutral perception (neither distinctly defined perception of role nor lack of distinctly defined perception of role). The range for all three perceptions was determined by the possibility maximum and minimum score in 5

point- Likert scale. Table 5 shows percentage of participants in these three categories.

Discussion

Current study aimed to assess and determine the attitudes of health professionals towards patients with substance use problems in our region and to identify factors causing diverse attitudes of health professionals towards these patients. There was weak positive correlation between age of the participants and their

corresponding DDPPQ score that is older health professionals had relatively negative attitude. This was in contrast to a study that found that older nurses believed more strongly that alcoholism is an illness[14]. The two professionals' groups were assessed by comparing health professionals having family history of substance abuse and past history of substance abuse, and it was found that there is no statistical difference between the two groups of health professional. The mean DDPPQ score in these groups ranged towards lower side denoting positive attitude towards these patients, means their past or family history of substance use didn't significantly affect the attitude. Our study found that there was no statistically significant difference between the DDPPQ scores between the two groups i.e., doctors and nursing staff.

Considering all participants in a group, the lower skewed total mean DDPPQ score of 49.57 (SD = 9.13, with a possible score between 22 and 110) in our study correlated with a more positive attitude and higher therapeutic commitment to drug abusing patients. On mean Likert-format response per question (of 1= Strongly agree to 5= Strongly disagree), the highest therapeutic commitment is reflected in role legitimacy subscale which indicated the degree that professional group members felt that drug abuse history taking and counseling was a professional responsibility. Role support and Role adequacy followed the next which reflected that professional group members felt that they have adequate knowledge of drug and drug related challenges. Also whenever required, they will get support or help to resolve drug related problem. Highly skewed score in motivation and self-esteem subscale reflected lower therapeutic commitment. Role support, role adequacy, role legitimacy and work satisfaction were all somehow interconnected with each other at the basic level along with motivation and self-esteem to aid in

understanding of the plight of patients of substance abuse and thereby providing therapeutic care and overall management to such patients. Our findings are in contrast to another study which found that healthcare providers struggled with the care for patients who used illicit drugs and they had less motivation, satisfaction, role support and education.⁹Crothers and Dorrian also found high scores regarding work satisfaction which indicated that nurses' attitudes regarding how much they like, and feel rewarded by, working with patients with alcohol problems, are an important determinant of the extent to which nurses are actually willing to engage in this work[15].

In an attempt to identify diverse attitudes of health professionals towards substance abusers, the sample participants were divided into three categories for ease of understanding - Positive perception, Negative perception and neutral perception; and it was found that number of healthcare professionals having neutral perception were maximum, followed by those having positive perception and least holding negative approach to the drug abuse patients. In a study nurses appeared to have, on average, attitudes that were consistently quite positive, if not neutral[14]. As healthcare professionals are the chief gatekeepers in the management of patients who suffer from substance use disorder, there is need of the hour to change both the neutral and negative attitude of the health care workers into positive attitude. To improve local services, Howard et al recommended that a training strategy should be developed with consideration to a structured programme covering all aspects of providing care to inpatients with co-occurring mental health and substance use problems; implementing training and support structures for staff will enable them to deliver more recovery and client centered interventions for patients with these co-occurring issues[10].

Healthcare delivery needs unbiased and non-judgmental attitude of healthcare professionals towards patients of substance abuse, so in an attempt to provide holistic approach and care that overlooks socio-demographic and clinical profiles, professionals should have adequate and appropriate training and exposure accordingly. We propose some ways that can be executed systematically to bring about the necessary change in the attitudes of a healthcare professional- First and foremost is sensitization of healthcare professionals (both the doctors as well as the nursing staff) which is primarily important to achieve better outcomes in management of patients of substance use disorders. Secondly, there are ways to be incorporated at the grass root level which directly and/or indirectly will have an impact on the management of such patients include: (i) training – providing education and skills to the professionals and conducting workshops at regular intervals, teaching institute – both the medical colleges and the nursing colleges are jointly responsible in training the students who take up this field and providing opportunities for them to learn, (ii) exposure – mandatory rotatory postings for every undergraduate medical/nursing student to understand patients from having them visit an addiction wing facility of outdoor and indoor patients run by the department of psychiatry at the institute where they come across such patients of substance abuse.

Conclusion

Our study found that the younger age group healthcare professionals had more positive outlook and attitude towards substance users. The lower skewed total mean score of participants denoted more positive attitude and higher therapeutic commitment. Subdivision of the participants in three groups to a step forward revealed that majority of them had either positive or neutral attitude

towards patients with problem of substance abuse, leaving a minority or handful percentage of participants who had negative perception and attitude.

Implications of the Study

our study will help in identifying diverse attitude of health professional towards patients with substance use disorders and the associated factors. Awareness and proper education along with skills instilled among these healthcare professionals will strengthen the belief and trust of the patient receiving treatment and management during the prolonged period provided for deaddiction. The provision of adequate, timely guidance and motivation at every step to reduce the use of illicit substances, would help in controlling the menace of drug abuse can be well achieved.

Limitations

This was a cross sectional study with small sample size.

Future Direction

Future studies can be undertaken with large sample size to determine the changes in attitudes and knowledge of healthcare professionals prior to any kind of exposure or training received and followed up by assessing them after they have achieved skills, knowledge and training in the field of addiction psychiatry.

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