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Original Research Article

Demographic profile of alcohol use disorder patient who received care from a de-addiction centre in central Kerala

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ABSTRACT

Background: The world's third largest risk factor for disease and disability is alcohol consumption. This is associated with many serious socio-economic issues, including violence, child neglect and abuse, and absenteeism at the workplace.
Methods: In this study the socio demographic details of the patients admitted from 1st January 2016 to 31st December 2016 were collected directly from the medical records of a de-addiction centre situated at Thrissur, Kerala. The data was entered to excel and statistical analysis was done by using SPSS 21. A total of 571 cases were included in the study.
Results: This study shows that more than half of the patients (52.42%) seeking de-addiction comes under middle age group with the mean age of 42 years. Based on educational category of the patients of this study only 10.4% had graduation and above. The majority of the subjects had either high school certificate or below (84.4%). The educational status of patients was comparable with the pattern among general population. In the present study, 32.9% of the patients are skilled workers. In terms of blood group distribution of the patients, the most observed blood group was O+ (41.4%) followed by B+ (23.9%).
Conclusions: Large number of clients seeks help from de-addiction centers. The majority belonged to middle age group and the educational status of patients was comparable with the pattern among general population. There is necessity for further investigation in the de-addiction centers in order to evaluate pattern and trends in misuse of alcohol or substances.

Keywords: Alcohol Use Disorder, De-addiction, Substance Abuse

INTRODUCTION

Alcohol consumption is the world's third largest risk factor for disease and disability.[1] The harmful use of alcohol can also result in harm to other people, such as family members, friends, co-workers and strangers. Moreover, the harmful use of alcohol results in a significant health, social and economic burden on society at large.[2] Globally, 6.2% of all male deaths and 1.1% female deaths are attributable to alcohol.[3] Mortality resulting from alcohol consumption is higher than that caused by diseases such as tuberculosis, HIV/AIDS and diabetes.[4] A rise in alcohol use in South East Asian countries including India is reported.[5] Prevalence rate of alcohol use in India is 21.4% with male predominance and a trend for increase in female.[6] Large number of youth among users and peddlers warrant effective and early implementation of preventive, curative and

rehabilitative strategies. They fall easily in the vicious trap of drug abuse at early age with high rates of relapse. Support for substance abuse education, prevention and treatment must come from all sides including families, community groups, schools, policymakers, and health professionals.[7] A study conducted in Kashmir showed that a pattern of poly-substance abuse was found to be quite common in patients, and use of volatile substances at a very young age emerged as a new trend.[8]

The Ministry of Social Justice and Empowerment, Government of India, addresses the prevention and rehabilitation aspect of substance use through the establishment of "rehabilitation centers" run by nongovernmental organizations (NGOs) and guidelines for such De-addiction centres (DA Centres) are mandatory to follow, which will enable the organization for Government support and permit mobilization of community resources.[9]

Kerala once respected worldwide for significant achievements in human development, has been fast developing a dubious reputation for heavy liquor consumption. Kerala's per capita liquor consumption of alcohol is about four times the national average.[10]

Aim of the research study was conducted to examine and report the demographic profile of the alcohol use disorder patients admitted in a de-addiction centre. Understanding the profile is expected to help in developing policy and programs for countering the problem.

METHODS

Study area

A retrospective, observational study conducted at Natural Empowering Survival Treatment and Research Centre (NEST), a de-addiction centre in Thrissur district of Kerala, India.

Study design

Purposive sampling technique

This retrospective study was conducted at Natural Empowering Survival Treatment and Research Centre (NEST), a de-addiction centre in Thrissur district of Kerala, India. This centre offers 21 days residential program with an eclectic approach. This includes music therapy, meditation and counseling along with the medical treatment for abused substance of concern. NEST accommodates cases from Kerala and Tamil Nadu states. This institution is run by Catholic Arch Diocese of Thrissur. This study was approved by Institutional Ethics Committee (IEC) for ethical concerns.

The socio demographic details of the all patients admitted from 1st January 2016 to 31st December 2016 were collected directly from the records of the Institution, using a pre designed proforma. It was entered to Google form and then to excel for further statistical analysis using SPSS version 21. The Revised Kuppuswamy's Scale, 2017 was used for data analysis.[11]

Selection criteria

All male patients admitted in the de-addiction centre were included in the study. Incomplete records of patients, cases with repeated registration or immediate cancellation due to non-cooperation were excluded from analysis.

RESULTS

During the year 2016, a total of 571 substance abusers were registered at NEST. Among them 398 (69.7%) were from Thrissur district where the institution is located. There were 68 (11.9 %) cases from Ernakulum and 33 (5.8%) from Palakkad, the neighboring districts on either side. The remaining 57 (10%) cases were from the other 11 districts of the state. There were 15 cases (2.6%) from other states of the country. The family status of the patients was; 401(70.2%) married, 160 (28%) single and 10 (1.8%) separated and 389 (68%) had children. Their religion wise distribution was 272 Christian (47.65%), 259 Hindu (45.4%) and Muslim 36 (6.3%).

Table 1: Number and percentage of patients according to the level of education passed.

Education Category	Frequency	Percentage
Post-graduate or Professional degree	10	1.7
Graduation	50	8.7
Higher Secondary certificate	121	21.2
High School certificate	144	25.2
Middle School certificate	95	16.6
Literate	118	20.7
Illiterate	33	5.8
Total	571	100.0

Table 2: Number and percentage of patients according to the type of employment.

Job category	Frequency	Percentage
Professional	8	1.4
Semi-professional	12	2.1
Arithmetic skilled worker	104	18.2
Skilled worker	188	32.9
Semi-skilled worker	63	11.0
Unskilled worker	100	17.5
Unemployed	96	16.8
Total	571	100.0

Patients were categorized based on their educational levels. Illiterate was 5% and majority were with education below matriculation or equivalent (Table 1). Majority of the persons seeking de-addiction were skilled labors

(32.92%) followed by arithmetic skilled workers (18.21%) (Table 2).

Mean age of patients was 42 years. More than half of the patients were middle aged (52%) followed by young adults (40.9%) (Table 3).

Table 3: Number and percentage of patients according to age category.

Age category (years)	Stage	Frequency	Percentage
13-20	Teenage	25	4.4
21-29	Young adult	234	40.9
40-65	Middle age	299	52.4
>65	Old adult	13	2.3
Total		571	100

Table 4: Number and percentage of patients according to their Blood Group.

Blood Group ABO	Blood Group Rh	Frequency	Percentage
A	+	59	19.9
	-	6	2.0
B	+	71	23.9
	-	4	1.3
AB	+	19	6.4
	-	2	0.8
O	+	123	41.4
	-	13	4.4
	Total	297	100

The blood groups of 297 patients were known. Of this the most common blood group was O+ (41.4%) followed by B+(23.9%) (Table 4).

DISCUSSION

For alcohol use disorder patients who seek help, three types of centres offers service. Most of the hospitals with psychiatry department offer treatment for de-addiction. This includes those in general hospital settings and those in custodial care services. In both these centres the addiction patients are cared along with other patients having mental illness in general. These centres manage patients based on disease model emphasizing medical management. The DA centres are usually stand alone institutions offering service exclusively for DA patients. Most of them have eclectic approach or emphasis on psycho-social management. The present study centre was DA centre.

In the present study, all the patients who attended the de-addiction centre were males. Similar findings were reported from de-addiction centres in Punjab and Jammu where the rate of men was higher than females.[6,7] In South India, studies from Karnataka also had similar findings.[12] All these studies show predominance of males towards substance abuse and the prevalence of the related diseases. There was a recent report of female alcohol user cared in a general hospital setting, of Kerala.[13] Perhaps the cultural non-acceptance may be keeping the affected women away from care facilities and help seeking.[14] Higher representation of Christian religion among the patients was noticeable. Though there is secular policy in care delivery and management, being run by Roman Catholics source of the case referrals would have influenced that pattern.

This study showed that more than half of the patients (52.42%) seeking de-addiction belongs to middle age group with the mean age of 42 years. Similar finding was reported from North India also.[15] According to Erickson's stages of psychosocial development, this age group people discover a sense of contributing to the world, usually through their family and work, or they may feel a lack of purpose.[16] This could be a reason for seeking de-addiction among the middle aged who would have started the abuse from their early ages.

The literacy rate among persons of age seven years and above in Kerala is 96.1%, in this study 84.4% were educated at level of matriculation or below.[17] Only 11.7% of population had achieved education above that level. In this study 10.4% had education at graduation level and above. Only 5.8% were illiterate. All these figures roughly correspond to that of general population. In another reported study among alcohol abusers it was found that most of the patients were school dropouts.[7,18] Our results are concordant with other studies which reported that most of the patients were educated only up to primary or secondary level.[6,19] There are contrary reports also, stating that as literacy rate increases abuse rate also increases and the highest rate was seen in graduates.[15,20,21] There is no observations from this study to comment on the reasons for that discrepancy among different studies.

In the present study, 32.9% of the patients are skilled workers. Similar observations were made in other studies also.[22] This category includes drivers, carpenters, mechanics, masons and similar workers who carry high risk of drug abuse compared to other occupations. These people may consume alcohol as a way to moderate or numb the pain of physical stress and injury caused by hours of manual labor.[23] About 17% of the patients of this study are students or unemployed which is similar to other reports.[15] While several studies have explored the impact of alcohol use on employment status, some studies suggest that alcohol abuse/misuse increases the probability of being unemployed, while others contradict these results or do not find a statistically significant relationship between alcohol abuse and employment status.[24-26]

In terms of blood group distribution of the patients, the most observed blood group was O+ (41.4%) followed by B+ (23.9%) and A+(19.9%) and the least with AB-

(0.8%). Several genetic factors have been reported related to the vulnerability to drug addiction. The relationship between blood group types and many diseases has also been reported.[27] However, there has been no report revealing the relationship between blood groups and alcohol addiction or drug abuse.[28] The blood group pattern as per the register of Immuno-haematology and Transfusion Medicine Department of Jubilee Mission Medical College, Thrissur showed similar pattern with highest frequency for O+ (35.42%) followed by B+ (26.96%), A+ (22.86%) and lowest frequency for AB- (0.70%). Hence no conclusions could be drawn regarding the relationship of alcohol use disorder with blood group. Entire sample selected for the study was only from one de-addiction center is the limitation of the study.

The main limitation of the present study was, it included male patients admitted to a single de-addiction center.

CONCLUSION

Large number of clients seeks help from de-addiction centers. In spite of remaining secular, the religious categories of the help seekers are influenced by the organizations' background, possibly because of the source of referral. The majority belonged to middle age group explainable on the Erickson's stages of psycho-social development. The educational status of patients was comparable with the pattern among general population. The employment status and absence of females are in line with other reported studies. Absence of any correlation with blood groups also was noted. There is necessity for further investigation in the de-addiction centers in order to evaluate pattern and trends in misuse of alcohol or substances. These types of studies are helpful to further oversee strategies employed in such centers and to understand best practices.

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