Effectiveness of Brief intervention in alcohol use among police personnel in Bhubaneswar

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Abstract: Effectiveness of Brief intervention in alcohol use among police personnel in Bhubanswar. Police personnel have the responsibility of providing safe and secure environment for the society. Police personnel have tensed personal and social life. They often use alcohol to cope up with occupational stress. Police personnel consume alcohol during festivities and celebrations like promotions, retirements, holiday etc. Occupational stress, peer pressure, tensed personal and social lives are other cause of alcohol use which become habit and leads to harmful use of alcohol which is unnoticed and untreated.
Objectives:

- Assess the extent of alcohol use among police personnel.
- Find the effectiveness of brief intervention in reduction of alcohol use among police personnel.

The study was conducted in Police Barrack, Jaydev Vihar, Bhubaneswar, Odisha and evaluative research design is used. A Quasi experimental study was conducted among police personnel, using Alcohol, Smoking and Substance Involvement Screening Test (ASSIST) and socio demographic questionnaires. The collected data was analysed by using descriptive and inferential statistics. The hypothesis was tested at the 0.05 level of significance. The distribution of subjects according to alcohol risk of level was done by frequency and percentage. 't' test is used to find significant difference between the pre-test and post test score of both experimental and control group. This study found that, 16.6% are at low risk and 83.3% are at moderate risk in control group. In experimental group 20% are at low risk and 80% are at moderate risk of level. After 3 months follow up in post test score, 26.6% are at low risk and 73.3% are at moderate risk level in control group. In experimental group 50% are at low risk and 50% are at moderate risk level after giving brief intervention. The study provides evidence that screening and brief intervention delivered by researcher is effective to reduce the alcohol use among police personnel.

Key-words: Brief intervention; FRAMES; Alcohol use; Police

INTRODUCTION

Police officers constitute a very important part of the society. They are the one who are first to be looked upon in any threatening situation for restoring peace and securing human dignity. They face occupational stress and have tensed personal and social life. Knowledge about the police personnel in India regarding the use of alcohol is limited [1]. Alcohol is the most convenient and socially acceptable coping alternative for police officers [2].

Nature of work, peer group pressure and environment are the great challenge to the police personnel and act as precipitants to alcohol use and abuse among them [2]. Gillan, (2009) and Govender (2008) state that, police are significantly affected by alcohol abuse due to the nature of work and the frequent use of alcohol in an attempt to cope with stress, boredom, loneliness and the lack of other recreational activities. While there are numerous ways in which individual police may deal with job related stress, may turn to alcohol as a coping mechanism [3],[4],[5].

A reduction in frequency of alcohol consumption at 6 and 12 months in hazardous drinkers who had received a 15 minutes brief intervention and self-help materials, in a primary care setting [6]. The WHO Brief Intervention Study Group 25 found that five minutes of simple advice were as effective as 20 minutes of counselling. Moreover, brief interventions have been shown to be a cost and time effective way of reducing alcohol consumption and associated problems [7].

This research is done on efficacy of screening linked brief intervention for alcohol use among police personnel. Brief intervention is cost effective and time effective which helps to reduce the alcohol use by using FRAMES module.

SUBJECTS AND METHODS:

The study was conducted at Police Barrack at Jaydev Vihar, Bhubaneswar. The reason for selecting this

setting is geographic proximity, economy in terms of time, co-operation and availability of subjects. The study population consists of 60 police personnel, 30 control group and 30 experimental group. The selection of the sampling technique used for the present study is by purposive sampling. During data collection researcher list out the member of the police personnel who are willing to participate in the research study.

WHO ASSIST V3.0 is an 8 item questionnaires to assess the level of alcohol use among police personnel. All the sixty participants were interviewed and asked to respond to ASSIST questionnaires about the frequency of the using alcohol. For each item the personnel's are to indicate how often they use alcohol. Higher is the score more is the risk of alcohol use. Privacy is maintained during the time of data collection.

After the division of samples to control and experimental group, the brief intervention was planned to be provided in groups of 5. The intervention was carried out for 8 days for each group. The intervention comprises of 2 sessions with an interval of 2 weeks in between them. First session focused on rapport building, screening, feedback report, setting goals and provision of structured advice tool; and the second session used role plays, self help group, alternative strategies formation etc. The follow up and post test was done after 90 days

The data analyses include descriptive and inferential statistics. Socio-demographic data was analysed using frequency and percentage. 't' test is used to compare the scores of pre test and post test scores in both control and experimental group. Chi-square test is used to find association between socio-demographic variables with level of alcohol use.

RESULTS:

Table 1: Distribution of subjects according to age in both control and experimental group

AGE	CONTROL GROUP		EXPERIMENTAL GROUP	
	FREQUENCY	PERCENTAGE	FREQUENCY	PERCENTAGE
a. 18-30yrs	29	96.67%	27	90%
b. 31-40yrs	1	3.33%	3	10%

Table 1 showed that the majority of participants belong to the age group of 18-30 years, 96.6% in control group and 90% in experimental group use alcohol.

Table 2: Distribution of subjects according to type of family in both control and experimental group

TYPE OF FAMILY	CONTROL GROUP		EXPERIMENTAL GROUP	
	FREQUENCY	PERCENTAGE	FREQUENCY	PERCENTAGE
a. Nuclear	15	50.00	12	40.00
b. Joint	15	50.00	18	60.00

Table 2 shows that in control group 50% lived in nuclear family and 50% are from joint family. Among experimental group 40% lived in nuclear family and 60% are from joint family.

Table 3: Distribution of subjects according to marital status in both control and experimental group

MARITAL STATUS	CONTROL GROUP		EXPERIMENTAL GROUP	
	FREQUENCY	PERCENTAGE	FREQUENCY	PERCENTAGE
a. Married	17	56.67	15	50.00
b. Unmarried	13	43.33	15	50.00

Table 3 shows that in control group 56.6% are married and 43.3% are unmarried. Among experimental group 50% are married and 50% are unmarried.

Table 4: Distribution of subjects according to educational background in both control and experimental group

EDUCATION	CONTROL GROUP		EXPERIMENTAL GROUP	
	FREQUENCY	PERCENTAGE	FREQUENCY	PERCENTAGE
b. High School	21	70.00	22	73.33
c. Higher Education	7	23.33	8	26.67

Table 4 shows that in control group 70% have high school education and 30% have higher education. Among experimental group 73.3% have high school education and 26.6 % have higher education.

Table 5: Distribution of subjects according to family history of substance abuse in both control and experimental group

FAMILY HISTORY	CONTROL GROUP		EXPERIMENTAL GROUP	
	FREQUENCY	PERCENTAGE	FREQUENCY	PERCENTAGE
a. Yes	19	63.33	22	73.33
b. No	11	36.67	8	26.67

Table 5 shows that in control group 63.3% have family history of substance abuse and 36.6% have no family history of substance abuse. Among experimental group 73.3% have family history of substance abuse and 26.6 % have no family history of substance abuse.

Table 6: Distribution of subjects according to monthly income in Indian National Rupees in both control and experimental group

INCOME	CONTROL GROUP		EXPERIMENTAL GROUP	
	FREQUENCY	PERCENTAGE	FREQUENCY	PERCENTAGE
a. Rs5000-15000	4	13.33	6	20.00
b.Rs16000-25000	24	80.00	24	80.00

Table 6 shows that in control group 13.3% have monthly income of Rs 5000-15000 and 80% have income of Rs16000-25000. Among experimental group 20% have monthly income of Rs5000-15000 and 80% have monthly income of Rs16000-25000.

Table 7: Distribution of subjects according residence in both control and experimental group

HABBIT AT	CONTROL GROUP		EXPERIMENTAL GROUP	
	FREQUENCY	PERCENTAGE	FREQUENCY	PERCENTAGE
a. Rural	28	93.33	26	86.67
b. Urban	2	6.67	3	10.00
c. Slum area	0	0.00	1	3.33

Table 7 shows that in control group 93.3% are from rural area and 6.6% are from urban area. Among experimental group 86.6% are from rural area 10% from urban area and 3.3% from slum area.

Table 8: Distribution of subjects according to the type of duty both control and experimental group

TYPE OF DUTY	CONTROL GROUP		EXPERIMENTAL GROUP	
	FREQUENCY	PERCENTAGE	FREQUENCY	PERCENTAGE
a. Shift Duty	23	76.67	24	80.00
b. General Duty	7	23.33	6	20.00

Table 8 shows that in control group 76.67% are working as shift duty 23.3% are working as general duty. Among experimental group 80% are working as shift duty and 20% are working as general duty.

Table 9: Distribution of subjects according to risk of level (low, moderate and high) in both control and experimental group.

Risk Of Level	Control group		Experimental group	
	Frequency	Percentage	Frequency	Percentage
Low (0-10)	5	16.67	6	20
Moderate(11-26)	25	83.33	25	80

Table 9 shows that the risk of level among in control group majority 83.3% are at moderate risk (score 11-26), 16.6% are at low risk (score 0-10). Among experimental group majority 80% are at moderate risk (score 11-26), 20% are at low risk (score 0-10).

Table 10: Distribution of subjects according to the post test of control group and experimental group

Level of risk	Control group		Experimental group	
	Frequency	Percentage	Frequency	Percentage
Low	8	26.6%	15	50%
Moderate	22	73.3%	15	50%

Table 10 shows that in control group 26.6% are at low risk and 73.3 are at moderate risk. In experimental group 50% are at low risk and 50% are at moderate risk.

Table 11: Comparison of pre test and post test of experimental group

n=30

Item	Mean	SD	Calculated 't' value	df	Tabulated t value at p=0.05	Inference

Pre test	17.93	6.69	6.39	29	2.05	Extremely statistical significant
Post test	12.83	6.42				

Table 11- The hypothesis is tested at 5% level of significance. There is a significance reduction in the score of pre test and post test of experimental group.

Referring to tabulated 't' value at 29 degree of freedom, for 0.05 level of significance. The tabulated 't' value is 2.05 which is less than calculated 't' value= 6.39, then accept the null hypothesis that there is brief intervention reduces the alcohol use.

Table 12: Comparisons of pre test and post test of control group

n=30

ITEM	MEAN	SD	Calculated 't'value	df	Tabulated t value at p=0.05	Inference
PRE-TEST	17.76	6.44	1.49	29	2.05	Not statistical significant
POST-TEST	17.23	5.81				

Table 12- The hypothesis is tested at 5% level of significance. There may be or may not be reduction of score in post test of control group.

Referring to the tabulated 't' value is 2.05 at 29 degree of freedom , for the 0.05 level of significance. The tabulated 't' value is 2.05 which is more than calculated 't' value=1.49, then reject the null hypothesis.

Use of alcohol by age

Result shown in table 14 of majority of participants of age 18-30 years, 16.6% are at low risk and 61.6% are at moderate risk. 1.6% are at low risk and 20% are at moderate risk within the age group of 31-40 years.

Use of alcohol by type of family

Study results shows that in table 14 below indicate that majority of participants are from joint family 45% are at moderate risk and 10% are at low risk. Participants from nuclear family 36.6% are at moderate risk and 8.3% are at low risk of alcohol use.

Use of alcohol by marital status

Table 14 shows that majority of participants 43.4% are at moderate risk are unmarried and 38.3% are married.
Use of alcohol by education

In table 14 below shows that 55% participants completed high school education are at moderate risk and 16.6% are at low risk. 26.6% are at moderate risk and 1.6% are at low risk participants completed higher education.

Use of alcohol by family history

Table 14 shows that majority 51.6% participants are at moderate risk and 16.6% are at low risk having family history of alcohol use. 30% are at moderate risk and 1.6% are at low risk participants have no family history of alcohol use.

Use of alcohol by monthly income

Result shows that in table 14 the majority of participants having monthly salary of Rs16000-25000, 65% are at moderate risk and 15% are at low risk. Participants having monthly income of Rs 5000-15000, 16.6% are at moderate risk and 3.3% are at low risk of alcohol use.

Use of alcohol by habitant

Result showed in table 14, majority of participants 71.6% are at moderate risk and 18.3% are at low risk from in rural area.

Use of alcohol by type of duty

61.6% participants are at moderate risk and 16.6% are at low risk having shift duty. 20% participants are at moderate risk and 1.6% are at low risk having general duty.

DISCUSSION:

This study shows the effectiveness of brief intervention to reduce alcohol use among police personnel at Police Barrack, Jaydev Vihar, Bhubaneswar.

With regards to table 1 data presented depicts that in both experimental and control group about 90% and 96.6% the age group of 18-30yrs respectively have more alcohol use. According to research done by Jeremy D. Davey, Patricia L. Obst and Prof. Mary C. Sheehan, examine the prevalence of alcohol use within a large sample (n=4193) of Australian police officers. Result indicates that although police did not report drinking with high frequency when compared to the national statistics, they did drink in far greater qualities. The 18-25 years old age group reported the highest levels of frequency and quality of alcohol consumed [8].

In relation to educational background table 4, it is concluded that 70% and 23.3% samples have high school and higher educational respectively in control group. In experimental group about 73.3% and 26.6% have high school and higher educational respectively. A study done in Asian region indicates that people who did not go to school or didn't complete primary education are more likely to drink in comparison to people who graduated from high school or University (Bich et al.2009). But the results are different from a study done by Riala et al (2002) in which a general survey in Holland revealed that the problem of drinking was not related to educational level. W.H.O reports that the prevalence of individuals ever to use alcohol was high among illiterates than with primary education [9].

A study done by Tanner Smith EE et al. reports the effectiveness of brief alcohol interventions for young adults (age 19-30yrs). Over all, brief alcohol intervention led to significant reductions in alcohol consumption and alcohol related problems among adolescents and young adults. These effects persisted for up to 1 year after intervention and did not vary across participated demographics intervention length or intervention modalities (e.g. motivational interviewing) and components e.g. decisional balance, goal setting exercise) were associated with larger effects. Brief alcohol intervention yield beneficial effects on alcohol related outcomes for adolescents and young adults that are modest but potentially worth while given their brevity and low cost [10].

CONCLUSION:

On the basis of the findings it can be concluded that there was slight reduction in alcohol use. The finding concluded that brief intervention (FRAMES) is effective for the police personnel. The finding concluded that the brief intervention module prepared by the researcher was found to be effective for decreasing the alcohol use.

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