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Effect of Motivation Enhancement Programme on Relapse Prevention in Patients Admitted with Alcohol Dependence Syndrome

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Abstract:

Alcohol is the world's third largest risk factor for disease burden. Alcohol dependence can be effectively treated with pharmacological and psychosocial interventions. The present study was undertaken to assess the effect of Motivation enhancement programme on relapse prevention among 60 patients admitted with alcohol dependence syndrome in medical college chest hospital, Thrissur which was based on Von Bertalanffy's system theory where throughput is explained with Peter Jarvis's experiential learning. The other objectives of the study were to find the correlation between motivation and warning signs of relapse and to find the association between motivation and warning signs of relapse with selected socio-demographic variables.. A quasi-experimental approach with a two group pretest post test design and purposive sampling was used to select 60 in patients; 30 in experimental and 30 in control group. Semi structured interview schedule was used to collect socio demographic data. Motivation and warning signs of relapse were assessed using Socrates 8A questionnaire and AWARE questionnaire respectively. Motivation enhancement programme of 5 sessions were given to the experimental group for 5 days following the pretest. 4 post tests were conducted on 4 follow up visits including the time of discharge for both groups. The findings revealed that the Motivation enhancement programme is effective in relapse prevention for patients with Alcohol dependence syndrome. The study demonstrated that there is strong negative correlation between motivation and warning signs of relapse. There was significant association of warning signs of relapse with family history of alcoholism. The findings have implication in nursing practice, education, administration and research.

Keywords: Alcohol dependence, Relapse, Motivation enhancement programme.

1. Introduction

Alcohol problems vary in severity from mild to life threatening and affect the individual, the person's family, and society in numerous adverse ways. Alcoholism is a disease which requires physical and psychological treatment as impairment may involve physiological, psychological or social dysfunction.

Alcohol is the world's third largest risk factor for disease burden. The harmful use of alcohol results in 2.5 million deaths each year. 320 000 young people between the age of 15 and 29 die from alcohol-related causes, resulting in 9% of all deaths in that age group in 2011. Alcohol is associated with many serious social and developmental issues, including violence, child neglect and abuse, and absenteeism in the workplace. Alcohol is a causal factor in 60 types of diseases and injuries and a component cause in 200 others. Almost 4% of all deaths worldwide are attributed to alcohol, greater than deaths caused by HIV/AIDS, violence or tuberculosis.

Alcohol consumption has been steadily increasing in developing countries like India and decreasing in developed countries since 1980s. The per capita consumption of alcohol by adults above 15 years in India has increased by 106.7% since 1970s. Changing social norms, urbanization, increased availability, high intensity mass marketing and relaxation of overseas trade rules along with poor level of awareness related to alcohol have contributed to increased alcohol use in India.

Kerala, being a state of high literacy rates and health care standards beats other states in India in alcohol consumption. Kerala has the highest per capita consumption of alcohol in India; 11.1 liters per year. People drink at an earlier age than previously. The mean age of initiation of alcohol use has decreased from 23.36 years in 1950 to 19.45 years in 1980 to 1990. The average age one starts drinking dropped from 19 years in 1986 to 13.5 years in 2006.

Carlo C. DiClemente and J. O. Prochaska, introduced a five-stage model of change to help professionals understand their clients with addiction problems and motivate them to change. The stages are Precontemplation, Contemplation, Determination, Action and Maintenance.

Individuals in the precontemplation stage of change are not even thinking about changing their drinking behaviour; but in the contemplation stage of change are willing to consider the possibility that they have a problem, and the possibility offers hope for change even though they are often highly ambivalent. Individuals in the action stage of change put their plan into action. In the termination stage, the alcoholic no longer finds that alcohol presents a temptation or threat; he has complete confidence that he can cope without fear of relapse.

Relapse to alcohol addiction is most likely to occur in the first three to six months after a person stops drinking. Getting active help and support during the early months of sobriety is critical for treatment to succeed. The overall rates of substance abuse relapse increased by an average of 8.6 percentage points between 30 to 180 days (one to six months) after treatment.

Motivational interviewing and personal feedback are two different methods which can be used for reducing alcohol consumption. Motivational interviewing, introduced by Miller and Rollnick in 1991, is a "client-centered, directive method for enhancing intrinsic motivation to change by exploring and resolving ambivalence". Family members, as significant others play an important role in treatment outcomes. O' Farrell reported that the involvement of spouses or significant others in behavioral couples therapy is associated with improved treatment engagement and reduced drinking behavior compared to individual therapy. External support along with intrinsic motivation will promise good result in preventing relapse.

Psychiatric nurse is a valuable member of the multidisciplinary team who can play a major role in identifying the risk groups, providing counselling services, psycho education to patients and family on various aspects of alcoholism, risk reduction strategies, motivation enhancement programmes and other measures of relapse prevention. She can also encourage them to use the self-help groups and rehabilitation services.

Out of the total admissions in the department of psychiatry of Medical College Chest Hospital, Thrissur, 50-60% is with alcohol dependence syndrome; both new and relapse cases. On an average 25-30 alcohol dependent patients are attending the outpatient department daily and out of them, around 5-10% is with relapse.

The nurse's role and position in caring the alcoholic is poor in most of the settings of alcoholism treatment. They play a very less significant role in this setting with, regard to relapse prevention. Even though they spend 24 hours in caring alcohol dependent patients, the individual role to instil motivation for patients to stop drinking is not that much promising. Little has been done by nurses in this area to ensure complete abstinence and provide support for alcoholics and their family. They can do a lot in this area if provided with adequate knowledge and practice regarding the concept of Motivational intervention package.

2. Methodology

- Setting: A quasi experimental approach was considered to be the most appropriate and adopted in order to assess the effect of Motivation enhancement programme on relapse prevention in patients admitted with alcohol dependence syndrome in Medical College Chest Hospital, Thrissur.
- Population: The population includes all patients admitted with the diagnosis of Alcohol dependence syndrome.
- Research design :Two group pre-test post-test design with repeated measure
- Measurements:
 - ✓ Socio-demographic proforma
 - ✓ Personal drinking questionnaire (Socrates 8A) which was designed to assess the motivation of problem drinkers before & after treatment
 - ✓ AWARE questionnaire (Advance Warning of Relapse) to measure warning signs of relapse
- Ethical consideration: The study was conducted from 08-02-2012 to 28-05-2012 after getting permission from the ethical committee of Medical College Hospital, Thrissur.

3. Results

Both experimental and control group were homogenous in all their demographic characteristics.

Most of the participants (83%) in the experimental group and majority of participants (77%) in the control group had a rural background. More than half of the participants in the experimental (67%) and control (53%) group were from nuclear family. Almost all participants in the experimental group (94%) and majority of participants in the control group (74%) were married.

In the experimental group, 53% of participants had only primary education and 47% had studied up to high school. In the control group, 37% of participants had only primary education and 33% had studied up to high school. In the experimental group, 63% of participants were manual labourers and 33% had private job/business. In the control group, 50% had private job/business where as 43% were manual labourers

Both in the experimental and control group, 60 % of participants reported that they would spend Rs.100-Rs.300/-per day for alcohol. Majority of participants in the experimental group (80%) and control group (87%) had family history of alcoholism. The mean period of abstinence in the experimental group is 5.9 months with a standard deviation of 8.130 and in the control group 4.53 months with a standard deviation of 4.470.

Both in the experimental group and control group, 60% of participants were admitted for de addiction and 40% for physical problems. In the experimental group, 70% of participants and in the control group 67% had voluntary admission in the hospital and the rest of participants in both groups had involuntary admission.

In the experimental group, 56 % of the participants were admitted for the first time for alcohol related problems and 30% had one previous admission where as in the control group, 44 % of participants were admitted for the first time and 33% had one previous admission.

In the experimental group, 40% of participants had average motivation to quit alcohol consumption and 60% had high motivation where as in the control group, half of participants had average motivation and the next half had good motivation to quit alcohol consumption when they entered the treatment.

In the experimental group 73% of participants had mild warning signs of relapse and 27% had moderate warning signs of relapse where as in the control group, 47% of participants had mild and 53% had moderate warning signs of relapse when they entered the treatment.

There were significant difference in motivation between and within the experimental and control group after the Motivation enhancement programme.

There were significant difference in warning signs of relapse between and within the experimental and control group after the Motivation enhancement programme.

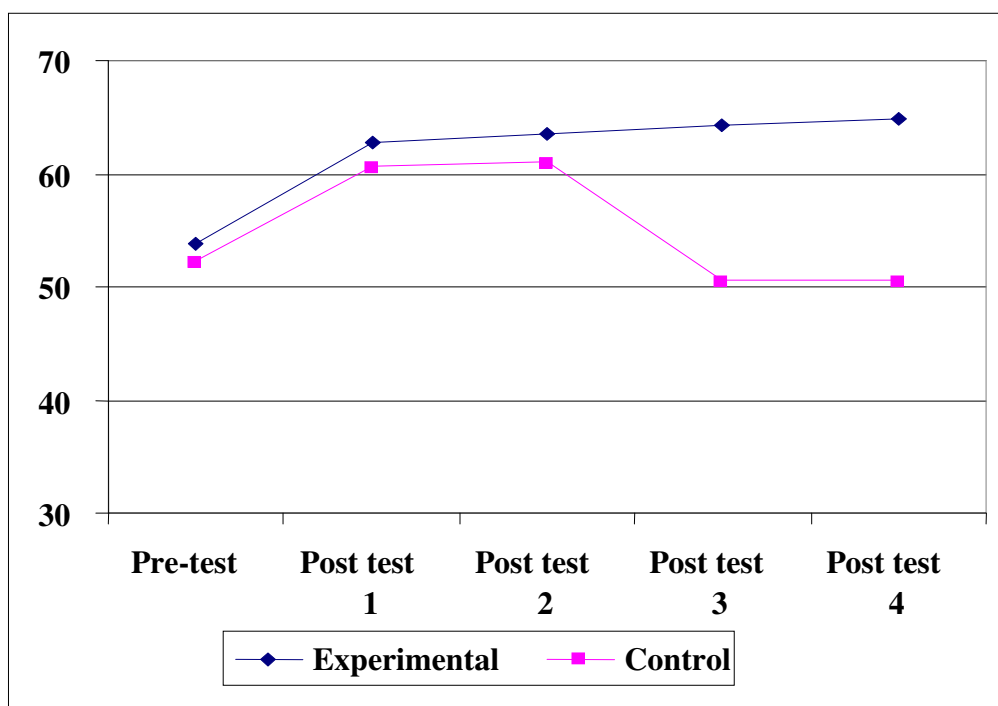


Figure 1: Motivation scores of patients with alcohol dependence syndrome in experimental and control group.

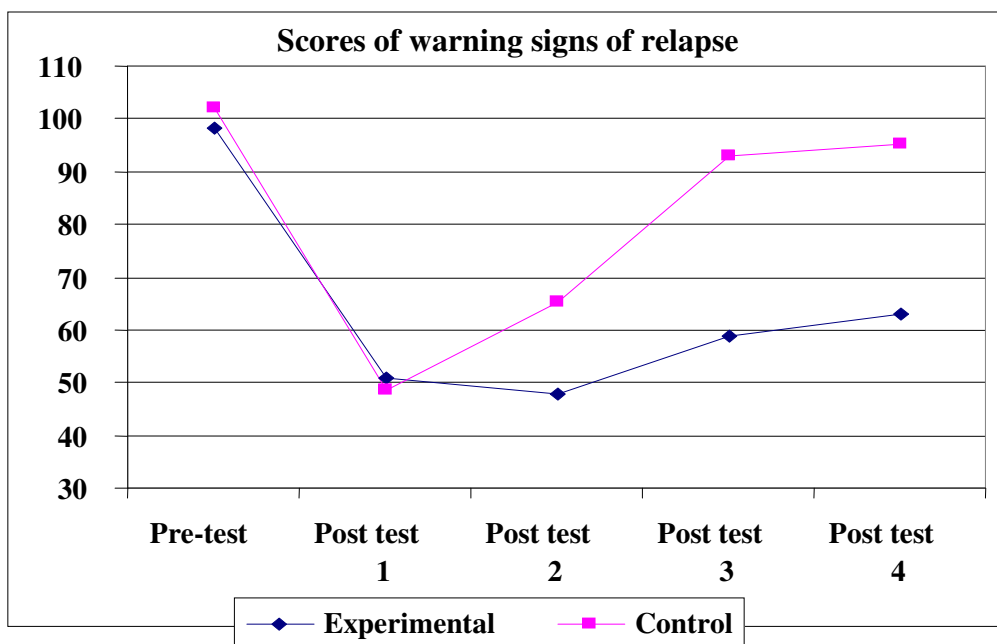


Figure 2: Scores of warning signs of relapse of patients with alcohol dependence syndrome in experimental and control group.

As the outcome measure for relapse prevention is motivation and warning signs of relapse, a significant difference in motivation and warning signs of relapse between the experimental and control group indicate the effectiveness of Motivation enhancement programme on relapse prevention.

There exists significant negative correlation between motivation and warning signs of relapse after the Motivation enhancement programme.

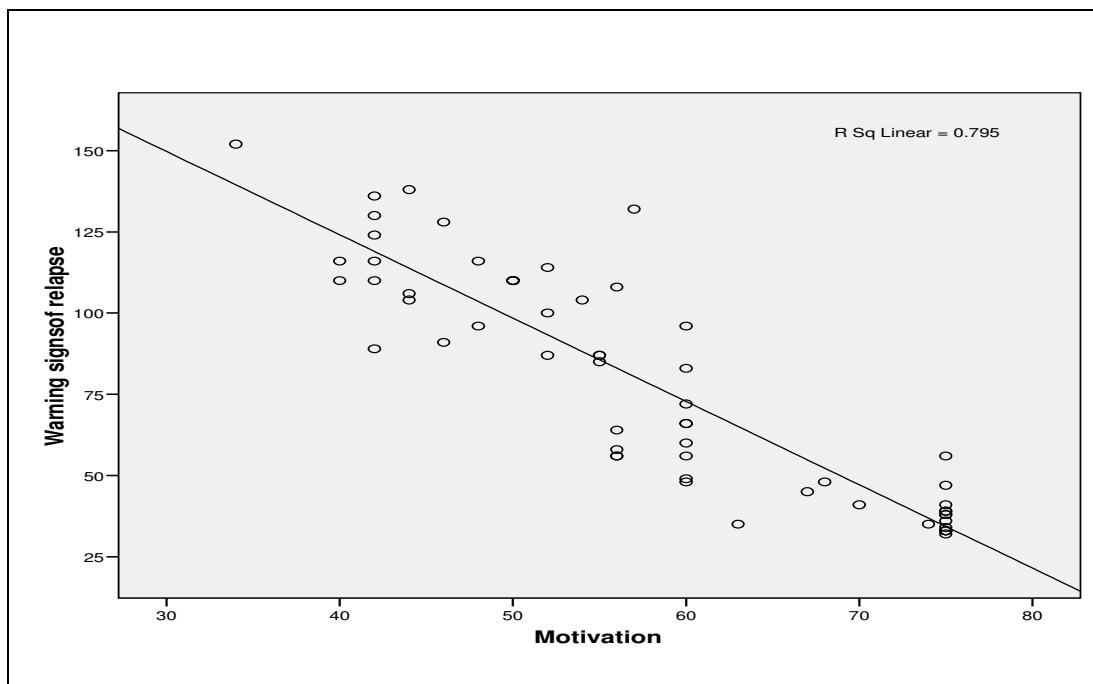


Figure 3: Correlation between motivation and warning signs of relapse in patients admitted with Alcohol dependence syndrome in post test 4.

There was no statistically significant association of motivation with socio-demographic variables at 0.05 level of significance. There was no statistically significant association of warning signs of relapse with socio-demographic variables except family history of alcoholism at 0.05 level of significance.

There was statistically significant association of warning signs of relapse with family history of alcoholism.

4. Discussion

It was found in the study that majority of subjects in the experimental group and control group had a rural background. In Thrissur district, more than half (53%) of the total population resides in rural area. Since Medical College Hospital is located 14 km away from Thrissur town and there are many private hospitals in and around Thrissur town, the majority of patients who are utilizing the services of this tertiary care centre are from rural area.

The study found that that 53% of participants in the experimental group and 37% in the control group had only primary education. The average literacy rate of Thrissur district is 95.32 in 2011. In a prospective study conducted by Helzer found that Individuals who had dropped out of high school were 6.34 times more likely to develop alcohol abuse or dependence than were individuals with a college degree. Kaprio J also found that men with no education were more likely to consume alcohol than with a post graduate education.

The present study found that Majority of patients in the experimental group (80%) and control group (87%) had family history of alcoholism. similar to this finding, a secondary analysis of general population survey data from Thrissur district confirmed the association between alcohol use by father and their male offspring. Alcohol using offspring of the alcoholic fathers were significantly younger and less educated.

The descriptive statistics revealed that majority of the participants in the experimental (94%) and control (74%) group were married. The remaining participants were either unmarried or separated. Rodgers in a longitudinal cohort study found that marital separation was accompanied by increases in heavy drinking, with pronounced short-term effects. Adverse alcohol-related health consequences may occur in the immediate period around divorce. Individuals who never marry appear to have a chronic heavy consumption pattern that may contribute to their increased mortality.

Present study found that 56 % of the participants in the experimental group and 44 % of the control group were admitted for the first time for alcohol related problems. 30% of the experimental group and 33% of control group had one previous admission for similar problems. There is a negative correlation between readiness to change and the number of previous detoxifications as found by Hewes RL and Janikowski TP is in accordance with the above finding.

The study found that 40%of subjects in the experimental group had average motivation and 60% had high motivation where as in the control group, half of subjects had average motivation and half of subjects had good motivation when they entered the treatment. In accordance with this finding, Demmen found that those clients scoring high on Taking Steps - and presumably ready to change - were more likely to be abstinent three months following discharge. It appears to be counter-intuitive that readiness to change predicted success in a sample of alcohol-dependent inpatients since all participants had entered treatment and had thus already initiated behavior change.

The present study revealed that Motivation enhancement programme made a significant difference in motivation within the experimental as compared to control group. The motivation scores of experimental group increases steadily from pre test to post test 4 where as that of control group, it first increases up to post test 2 and significantly decreases to post test 3 and then remains stable in post test 4. This finding is in accordance with a similar finding which shows that psycho educational groups have been found to facilitate recovery in alcohol dependence. Family intervention therapy in addition to pharmacotherapy was found to reduce the severity of alcohol intake and improve the motivation to stop alcohol in a case control design study. Beckam and Beckam found that one session of motivational interviewing with a nurse practitioner can be effective in reducing hazardous alcohol consumption in patients attending rural community health care clinics.

The investigator found that the mean scores of warning signs of relapse in the experimental group has decreased from pretest to post test 2 and then slightly increased to 62.833 at post test 4. In the control group, the mean scores of warning signs of relapse has decreased initially from pretest to post test 1 and then increased to 95.133 at post test 4. This demonstrates that as compared to experimental group, the mean scores of warning signs of relapse has increased significantly and thereby indicating more chance for relapse in the control group. A systematic review showed that motivational interviewing has a significant effect on reducing alcohol consumption in the primary care setting.

As relapse prevention is measured in terms of motivation and warning signs of relapse, a significant difference in motivation and warning signs of relapse between the experimental and control group indicates the effectiveness of Motivation enhancement programme in relapse prevention.

The present study revealed that there is significant negative correlation between motivation and warning signs of relapse. As motivation increases warning signs of relapse decreases. As time advances, motivation increases and warning signs of relapse decreases and the correlation was found to be strong towards the third follow up after the motivation enhancement programme. These findings are in accordance with the results of previous research which shows that motivation and relapse are inversely related. In a previous study based on the self-reports of 125 alcoholism treatment clients, readiness to change predicted abstinence at 12-month follow-up. Contrary to this finding, in a study conducted by Demmel to examine the relationship between client motivation and treatment outcome at 3 months post treatment in a sample of alcohol-dependent inpatients, found that neither outcome expectancies nor readiness to change predicted treatment outcome in terms of frequency and quantity of alcohol use. Once abstinence has been violated factors other than pretreatment motivation appear to determine both frequency and quantity of alcohol use.

Another important finding is that there is no significant association between motivation and selected socio-demographic variables among patients admitted with Alcohol Dependence Syndrome. Contrary to this finding, Kaprio J²⁷ found that caste, education and standard of living independently influence alcohol use in India.

The study found that there is no statistically significant association between socio-demographic variables and warning signs of relapse except family history of alcoholism at 0.05level of significance. On contrary to this finding, a longitudinal cohort study found that

Marital separation was accompanied by increases in heavy drinking, with pronounced short-term effects. Adverse alcohol-related health consequences may occur in the immediate period around divorce. Individuals who never marry appear to have a chronic heavy consumption pattern that may contribute to their increased mortality.

Family history of alcoholism had significant association between warning signs of relapse. There are many studies supported the association between family history and relapse in alcoholism. Studies on genetic epidemiology (family, twin, adoption, half-sibs) suggest that alcoholism in a biological parent is a consistent predictor of alcoholism in the offspring. Children of alcohol using parents are known to begin drinking early even when they are raised separately from each other and from the biological parents. Specifically, paternal alcoholism has been associated with increased rates in sons and daughters

4.1. The Major Limitations of the Study Includes

- As the study sample is limited to 60 and sampling technique was purposive, generalization of the findings is limited.
- Long term effect of the Motivation enhancement programme could not be assessed due to time constraints.
- Study was limited to only one setting and the intervention was given for 5 sessions only. No booster sessions were given to maintain abstinence.
- Outpatient alcoholics could not be included in the study.

5. Conclusion

The following conclusions were drawn on the basis of the findings of the study:

- There was significant difference in motivation between and within the experimental and control group after the Motivation enhancement programme.
- There was significant difference in warning signs of relapse between and within the experimental and control group after the Motivation enhancement programme.
- As the outcome measure for relapse prevention is motivation and warning signs of relapse, a significant difference in motivation and warning signs of relapse between the experimental and control group indicate the effectiveness of Motivation enhancement programme on relapse prevention.
- There exists strong negative correlation between motivation and warning signs of relapse and is interpreted as when motivation increases, warning signs of relapse decreases during the third follow up.
- There was no statistically significant association between socio-demographic variables with motivation or warning signs of relapse.
- There was statistically significant association between family history of alcoholism with warning signs of relapse.

So the motivation enhancement programmes effectively implemented by nurses will have a positive impact on relapse prevention. It will help the patient to maintain their abstinence over time and will help the family members to modify their behavior to assist in recovery of the patient. Psychiatric nurse is a valuable member of the multidisciplinary team who can play a major role in de-addiction. They can identify the risk groups, provide counselling services, psychoeducation to patients and family on various aspects of alcoholism, risk reduction strategies, and other measures of relapse prevention.

As majority of alcoholics belong to rural community and have a strong family history, community health nurses should consider the importance of motivation enhancement programmes in the community setting and should incorporate it in their community rehabilitation programmes. Nurses working in the periphery should receive training to implement motivation enhancement programme so that they can diagnose and reduce the incidence of Alcohol dependence syndrome from its root level. Nurses can promote the mental health of people by giving psycho educational programmes on effective individual coping so that people will abstain from alcoholism. They should ensure that motivation enhancement programmes are properly being implemented for the high risk population.

As it is an independent nursing intervention, the student nurses should actively participate in motivation enhancement programmes in their clinical practice. The nursing students must be equipped with scientific basis in various psychosocial interventions. Nursing curriculum should have provision to train students to implement psychosocial interventions in clinical situations. There should be adequate exposure to areas like substance abuse. Public education on alcohol dependence and its consequences should be conducted as a part of their clinical assignments.

More emphasis should be given to Community mental health nursing. Family oriented care in alcoholism and importance of psychosocial interventions in substance abuse should be taught in their syllabus. Home visits should be conducted specifically for identifying potential triggers of alcoholism. Students should recognize alcoholism as a public health problem, and should be actively involved in rehabilitation programmes.

Nurses as administrators should take initiative in formulating policies and protocols for short and long term training programmes for nurses on Motivation enhancement programmes for alcoholics. To improve knowledge of nursing personnel, nurse administrator must assume the responsibility of organizing in-service education programmes for nurses to make them aware of the use of psychosocial interventions in relapse prevention. Encourage clinical researches by nurses on Motivation enhancement programmes to prove its effectiveness under various situations.

The administrator must ensure that all nursing personnel working in de-addiction unit is competent to deliver motivation enhancement programmes. Nurses working in the de-addiction units should get adequate training to adopt the programme and implement it for their patient's better outcomes in the de-addiction treatment. Nurses should be given training for carrying out such interventions through

continuing nursing education programmes. It should be kept mandatory that each alcoholic admitted for alcohol related problems or for de-addiction should receive motivation enhancement programmes initiated by nurses as they are spending 24 hours in the ward for caring patients. Nurses should receive incentives for the successful implementation of the programme. Sufficient physical facilities like separate rooms and AV aids and provisions for follow up also should be given.

Findings of the present study suggest that more research should be conducted in this area to evaluate the long term effect of psychosocial interventions. Comparative studies also should be conducted. Nurses should understand the importance of conducting researches in the area of substance abuse. There should be provisions for implementing the positive findings in the day to day practice. Follow up studies also should be encouraged. Evidence based practice should be the core of nursing profession.

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