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Research article

Effect of a specific nursing intervention programme on relapse prevention of clients with alcohol dependence syndrome

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Abstract

Aim: The present study was aimed at assessing the effectiveness of structured intervention programme on relapse of clients with alcohol dependence syndrome admitted in a selected hospital, Ernakulam, Kerala. The investigator had a chance to interact with alcohol dependent clients during the clinical experience in De-addiction ward. An interest to bring these clients and family back to normal life made the investigator find out the effect of a specific nursing intervention programme on relapse prevention of clients with alcohol dependence syndrome.
Materials and Methods: The sample consisted of 60 clients with alcohol dependence syndrome, who were admitted in the de-addiction ward, and the subjects were selected by systematic random sampling method.
Results: The study aimed to determine the effects of a specific nursing intervention programme on relapse of clients with alcohol dependence syndrome. At the end of the study, based on the effectiveness specific nursing intervention programme could be implemented in the management of clients with alcohol dependence syndrome which will improve motivation and prevent relapse.
Conclusion: Being an active and qualified member of the psychiatric multidisciplinary team, the nurses can be the best providers their interventions. Based on the findings of the study, it is concluded that specific nursing intervention programme can significantly improve the prevention of relapse of clients with alcohol dependence syndrome.

Keywords: Alcohol dependence syndrome, nursing intervention, relapse prevention.

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1. Introduction

Alcoholism is an illness marked by drinking alcoholic beverages at a level that interferes with physical health, mental health, social, family and occupational responsibilities. It is a complex problem having medical and social ramifications which impact all social strata. It affects not only the users and their families but all sectors of the society. Controlling alcoholism by way of improving motivation has been a matter of priority by the time.

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The motivation of client is a critical issue for treatment and changing their drinking behavior [1].
Only 15% of with alcohol dependence seek treatment for the disease.
Relapse after treatment is common, so it is important to maintain support system in order to cope and assure that they do not turn to complete reversals. [2] Observed that in accordance with the growing consumption of alcohol all over the country, the hospital admission rates due to adverse effects of alcohol consumption are also increasing. [3] Estimating the burden due to alcohol use considered it as the major one among other communicable diseases. In de-addiction centers, almost 95% of these people are brought by family members. Since they do not accept alcoholism is a major problem and do not have motivation relapse rate is more [4].

The investigator had a chance to interact with alcohol dependent clients during the clinical experience in De-addiction ward. Many patients enter treatment under pressure from family members. Although these patients may attend treatment, they may not be ready to change their drinking behavior and may not actively participate in treatment. Most of them did not have the motivation and had little awareness about the disease of alcoholism, its deleterious effects, need for abstinence and drink refusal skills. They expressed their concerns, conflicts, and difficulty to maintain abstinence. Support from significant ones also is a crucial aspect of relapse prevention [5, 6].
Together with these observations, an interest to bring these clients and family back to normal life made the investigator find out the effect of a specific nursing intervention programme on relapse prevention of clients with alcohol dependence syndrome.

Objectives:

1. Assess the motivation of clients with alcohol dependence syndrome
2. Assess the warning signs of relapse among clients with alcohol dependence syndrome.
3. Determine the effect of a specific nursing intervention programme on relapse prevention of clients with alcohol dependence syndrome.
4. Find the correlation between motivation and warning signs of relapse among clients with alcohol dependence syndrome
5. Find the association between motivation and selected variables of clients with alcohol dependence syndrome
6. Find the association between warning signs of relapse and selected variables of clients with alcohol dependence syndrome.

Hypotheses:

H_1: There is a significant difference in the mean pre-test and post-test scores of motivation in clients with alcohol dependence syndrome in an experimental group
H_2: There is a significant difference in the mean pre-test and post-test scores of warning signs of relapse in clients with alcohol dependence syndrome in an experimental group
H_3: There is a significant difference in mean post-test score of motivation in experimental and control group
H_4: There is a significant difference in mean post-test score of warning signs of relapse in experimental and control group
H_5: There is a significant correlation between scores of motivation and warning signs of relapse in experimental and control group
H_6: There is a significant association between motivation and selected variables of clients with alcohol dependence syndrome
H_7: There is a significant association between warning signs of relapse and selected variables of clients with alcohol dependence syndrome

Research design:

Quasi-experimental

Time series nonequivalent control group design

Control group $\mathbf{O_1}$ X $\mathbf{O_2}$ $\mathbf{O_3}$ X $\mathbf{O_4}$

Experimental group $\mathbf{O_5}$ X $\mathbf{O_6}$ $\mathbf{O_7}$ X $\mathbf{O_8}$

O_1- Pretest score in control group using demographic and clinical data sheet, SOCRATES 8A for assessing motivation, AWARE questionnaire and clinical profile blood investigation chart for assessing relapse.
O_2- First post-test score in control group using SOCRATES 8A and an AWARE questionnaire on the 20th day of pretest
O_3- Second post-test score in control group SOCRATES 8A and an AWARE questionnaire on the 50th day of pretest
O_4- Third post-test score in control group SOCRATES 8A and AWARE questionnaire and clinical profile blood investigation chart on the 140th day of pretest
X- Specific nursing intervention programme for the experimental group from 2nd to the 13th day of pretest
O_5- Pretest score in experimental group using demographic and clinical data sheet, SOCRATES 8A for assessing motivation, AWARE questionnaire and clinical profile blood investigation chart for assessing relapse.
O_6- First post-test score in experimental group using SOCRATES 8A and an AWARE questionnaire on the 20th day of pretest (1 week after intervention).
O_7- Second post-test score in experimental group SOCRATES 8A and an AWARE questionnaire on the 50th day of pretest (1 month after intervention).
O_8- Third post-test score in experimental 1 group SOCRATES 8A and AWARE questionnaire and clinical profile blood investigation chart on the 140th day of pretest (3 months after intervention).

Setting
General Hospital, Ernakulam

Population
Clients admitted in General Hospital, Ernakulam who satisfy ICD10 criteria for alcohol dependence syndrome.

Sample
60 clients admitted in General Hospital, Ernakulam who satisfy ICD-10 criteria for alcohol dependence syndrome. Average -60 clients, 30 for experimental and 30 for the control group.

Sampling technique
Non probability-Purposive sampling

Criteria for sample selection

Inclusion criteria:
Male clients,
1. who are willing to participate
2. who understand Malayalam
3. in the age group of 30-60years

Exclusion criteria:
Male clients,
1. with major psychiatric illness
2. with polysubstance abuse except smoking
3. with debilitating medical illness

Research tools and techniques:

Tool 1: Part A: Demographic data sheet
Part B: Clinical data sheet related to alcoholism
Tool 2: a Standardized tool for assessing motivation, SOCRATES V8 (19 item scale)
Tool 3: AWARE Questionnaire (28 item scale)
Tool 4: Clinical profile- Blood investigation chart

Tool 1
Part A- It includes 8 items: age, education, occupation, marital status, religion, monthly income, type of family, place of residence.
Part B- It includes 8 items: duration of drinking habit, duration of excessive intake, daily money spent, maximal period of abstinence, family history, history of attempted suicide, family history of mental illness, history of smoking.

Tool 2
SOCRATES V8 (Stages of change readiness and treatment eagerness scale) is an experimental instrument designed to assess readiness for change in alcohol abusers. The instrument yields three factorially-derived scale scores: Recognition (Re), Ambivalence (Am), and Taking Steps (Ts).

Tool 3
AWARE Questionnaire (advance warning of elapse) is a self-reported 7 point rating scale with 28 items. The higher the score, the more warning sign of relapse are reported by the client.

Tool 4
Clinical profile- Blood investigation chart includes the value of gamma-glutamyl transferase (GGT), which is a biomarker for diagnosing alcohol abuse.

Technique:

Tool 1 by interview, tool 2&3 by questionnaire, and tool 4 by means of the biological method

Plan for data collection

After getting permission from Institutional Review Board / ethical committee, the investigator has to identify and select clients who satisfy the inclusion and exclusion criteria. Initially build rapport with the client, and explain the purpose of the study. After obtaining the consent of the client to participate in the study, the data would be collected using interview schedule. Planning to collect data from 60 clients of which 30 is experimental group and 30 in control group. Data from the control group were collected first. The responses were recorded by the investigator herself. Background information, motivation and warning signs of relapse would be assessed by using proforma for demographic and clinical data sheet, SOCRATES 8A personnel questionnaire, AWARE questionnaire and clinical profile blood investigation chart.
After the pre-test, the experimental group would be given specific nursing intervention programme on second to the 13th day. The clients' belonged to experimental groups were selected as five batches of six subjects. The intervention programme for the experimental group would be started on the 2nd day of pretest with a session of motivational interviewing and the second session would be given 4th day. Group therapy starts on the 3rd day of pre-test and will continue thrice weekly on alternate days for two weeks as per plan without interrupting the routine functions of the ward. Risk- reward analysis would be conducted on the sixth day, ad family psycho-education on 8th and 12th day. First post-test would be conducted one week after the intervention, on the 20th day and second post-test on the 50th day, one month after intervention. After 3 months of intervention, on the 140th day, third post-test would be conducted.

Plan for data analysis

The data would be analyzed using descriptive and inferential statistics. Frequency distribution and the percentage will be used to analyze the demographic and personal data of clients with alcohol dependence syndrome. Chi-square test was used to find out the homogeneity between experimental and control group. Motivation and relapse score would be assessed by mean and standard deviation. The effect of a specific nursing intervention programme on relapse prevention in clients with alcohol dependence would be analyzed by repeated measures ANOVA and post-hoc test. The pretest and posttest scores of the clinical profile blood investigation chart will be analyzed by paired't' test, which verifies the effect of the intervention. The correlation between motivation and relapse will be analyzed by Pearson correlation coefficient. One-way ANOVA was used to find out the association of motivation and relapse with selected demographic variables of clients with alcohol dependence syndrome.

The outcome of the study

The study aimed to determine the effects of a specific nursing intervention programme on relapse of clients with

alcohol dependence syndrome. At the end of the study, based on the effectiveness specific nursing intervention programme could be implemented in the management of clients with alcohol dependence syndrome which will improve motivation and prevent relapse.

Ethical consideration

The probable ethical issue in the study includes the willingness of clients to participate in this study. The study would be based on the guideline that the health of my subject is my first consideration. Privacy and confidentiality of the opinion of the subjects would be maintained. Written informed consent would be obtained from the client for participating in this study. Vulnerable subjects are excluded. Control group would be getting all the routine intervention and will get specific nursing intervention after post-test.

3. Results

In the control group, the median pre-test relapse score was 149.0 and post-test I, post-test II and post-test III were 145.5, 149.0 and 150 respectively. The parallel values in the experimental group were 150.0 in pre-test and 51.5, 65.5 and 72.5 in post-test I, II and III respectively. Nonparametric test, Friedman repeated measures ANOVA was used and revealed that in the control group there was no significant difference between the pre-test and post-test I, II and III (χ=14.458, P=0. 002). There was a significant difference observed in the experimental group between the pre-test and post-test I, II and III (χ = 28.92, P<0.001). Mann Whitney rank sum test was used to compare the medians. It revealed no significant difference between the pre-test of control and experimental group (T = 96, p=0.55). A significant difference was found between the control and experimental group in the post-test I, II and III (T =155, p<0.001).The relapse scores of control and experimental group are presented in table 1

Table no 1: Relapse scores of control and experimental group in pretest, posttest 1, 2, and 3

Group	Median (25-75 percentile)	Friedan repeated measures analysis of variance on ranks		Mann Whitney rank sum test			
		Con-Pre Con-Po1 Con-Po2 Con-Po3	Exp –Pre Exp -Po1 Exp -Po2 Exp -Po3	Con-Pre Exp-Pre	Con-Po1 Exp -Po1	Con-Po2 Exp-Po2	Con-Po3 Exp -Po3
Con-Pre	149.0 (147.0-150.0)	X 14.458 P 0.002	X 28.92 P <0.001	T 96 P 0.55	T 155 P <0.001	T 155 P <0.001	T 155 P <0.001
Con-Po1	145.5 (142.5-148.5)						
Con-Po2	149.0 (145.75-150.25)						
Con-Po3	150.0 (148.75-153.0)						
Exp –Pre	150.0 (145.75-151.25)						
Exp -Po1	51.5 (46.75-53.0)						
Exp -Po2	65.5 (62.75-67.75)						
Exp -Po3	72.5 (67.0-75.75)						

4. Discussion

It was found that the specific nursing intervention programme was effective in reducing the relapse in alcohol dependents. There was a significant difference in relapse scores of control and experimental groups. The intervention strategies implemented in the present study are congruent with many findings.

Majority of participants in both control (60%) and experimental (50%) belonged to the age group of 41-50. The results of the study were congruent with the findings of heavy drinking during the third and fourth decade of life is a common phenomenon [7]. [8] Stated in their study of socio-demographic profile of substance abusers attending a de-addiction center in Ahmadabad city that most of the abusers were educated up to primary and secondary level. In this study, 50% from control and 60% in the experimental group had an only primary education. All participants were manual laborers and were married. These findings were similar to the findings of [8] that low education level and occupation as laborer were the factors highly associated with alcoholism. In control group, 70% and in experimental group 80% were from nuclear family and 70% in control 90% in the experimental group were

from rural area. Significantly higher use of alcohol has been recorded among rural and low socioeconomic urban sections. All in control group and, 80% in the experimental group had a family history of alcoholism. This is similar with the findings of [9] that family history of alcohol was the second major predictor for current alcohol consumption.

A study was conducted at the de-addiction unit of Institute of Mental Health and Neurosciences, Kozhikode assessed the impact of family intervention therapy as an adjuvant to pharmacotherapy in alcohol-dependent subject in a case-control study design. Thirty matched patients were given only brief supportive psychotherapy. The findings revealed that the family intervention therapy significantly reduced the severity of alcohol intake, improved the motivation to stop alcohol and changed the locus of control from external to internal in the study group[10].

A randomized controlled trial was conducted in eight PCUs in Thailand to assess the effectiveness of Motivational Enhancement Therapy (MET) for 117 eligible participants, 59 were randomized to the intervention group to receive MET in three individual appointments with a trained nurse and 58 to an assessment-only control group. Outcome evaluations were carried out after 6 weeks, 3 months and 6 months. Follow up data were available on 84, 94 and 91% of subjects respectively, at the three intervals. Self-reported drinks per day were assessed, and of binge drinking sessions were reduced in the intervention group more than n the control group ($p < 0.05$) after 3 and 6months [11].

Another study was conducted to examine the effectiveness of MET in alcoholics to reduce problems as a result of drinking. Subjects included 22 alcoholics who received treatments. Each subject received follow up therapy every 2 weeks over a 12 week period. Analysis revealed that heavy drinking day percentage decreased after each session and abstinence day percentage increased after each session [12].

Building strengthening commitment to change are important aspects of alcoholism treatment as it has got a vital role in the prevention of relapse.

Conclusion

The study aimed to determine the effects of a specific nursing intervention programme on relapse of clients with alcohol dependence syndrome. At the end of the study, based on the effectiveness specific nursing intervention programme could be implemented in the management of clients with alcohol dependence syndrome which will improve motivation and prevent relapse. Being an active and qualified member of the psychiatric multidisciplinary team, the nurses can be the best providers their interventions. Based on the findings of the study, it is concluded that specific nursing intervention programme can significantly improve the prevention of relapse of clients with alcohol dependence syndrome.

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