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RESEARCH ARTICLE

EFFECTIVENESS OF SPECIFIC NURSING INTERVENTION PROGRAME ON MOTIVATION AND RELAPSE AMONG CLIENTS WITH ALCOHOL DEPENDENCE SYNDROME-A PILOT STUDY.

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Abstract

Motivation plays an important role in alcoholism treatment by influencing patients to seek, complete, and comply with treatment as well as make successful long-term changes in their drinking in prevention of relapse. The present study was aimed at assessing the effectiveness of structured intervention programme on motivation and relapse of clients with alcohol dependence syndrome admitted in a selected hospital, Ernakulam, Kerala. True experimental- pretest post test control group was the study design.The sample consisted of 20 clients with alcohol dependence syndrome, who were admitted in the de-addiction ward, and the subjects were selected by systematic random sampling method. Tool used were demographic and clinical data sheet related to alcoholism, Stages of Change Readiness and Treatment Eagerness Scale (SOCRATES 8A) and Advance WArning of RElapse -AWARE. Pretest was done on the first day. Second day onwards specific nursing intervention programe was scheduled with risk reward analysis, coping skill training programme, assertiveness training programme, family based intervention and psycho education for experimental group from 2nd to 12 th day on alternate days. First post test was conducted one week after the intervention on 19th day, second post test on 42nd day, one month after intervention and after 3 months of intervention, on 102nd day, third post test was conducted. Friedman repeated measures ANOVA revealed a significant difference in the motivation scores and relapse scores of experimental group between the pre-test and post-test I, II and III is (χ = 20.25, P<0.001) and (χ = 28.92, P<0.001) respectively. The intervention programme motivated the clients with alcohol dependence syndrome to face the existing problems and to prevent or reduce relapse, which is a pre-requisite for successful recovery.

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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. Alcohol consumption patterns are changing fast, making it more difficult to comprehend the problem and implement a solution.

Alcohol dependence is a chronic often progressive disease characterized by a preoccupation with alcohol and impaired control over alcohol intake which leads to strong desire to take alcohol, physical dependence, tolerance and progressive neglect of alternative pleasures in consumers (Gelder, Mayou & Cowen, 2004). Alcohol misuse has been implicated in over 20% of traumatic brain injuries (Gururaj, 2002) and 60% of all injuries reporting to emergency rooms (Benegal et. al, 2002).

Alcoholism causes disorganization in the family, impairment in social functioning, and economic loss in terms of working hours, work efficiency and loss of job. It also leads to legal consequences as it is involved in a major percentage of all sorts of criminal offences (Tasman & Allan, 2006). It has a disproportionately high association between deliberate self harm (Gururaj & Isaac, 2001), high risk sexual behaviour, HIV infection (Chandra, 2003), tuberculosis (Rajeswary, 2002), oesophageal cancer (Chitra et al., 2004), liver disease and duodenal cancer (Sarin, 1988; Jain, 1999).

Alcohol is consumed by about 2 billion people the world over, approximately one third of them have diagnosable alcohol use disorders (Ghosh et al., 2012). In India, the estimated numbers of alcohol users in 2005 were 62.5 million, with 17.4% of them (10.6 million) being dependant users(McQuad et al., 2000) and 20 30% of hospital admissions are due to alcoholrelated problems.(Andreasson et al., 2000) Alcohol related problems made up 17.6% of case load of psychiatric emergencies in a general hospital in India (Adityanjee& Wig 1989). Kerala has the highest per capita consumption of alcohol in India and is among the drunken leaders of the world, at a mind-blowing consumption rate of 8.5 litres per person.

A relapse or uncontrolled return to alcohol or other drug use following competent treatment, is one of the greatest problems substance abusers and their counselors face (Lewis, Dana & Blevins, 2002; Johnson, 2003:). Relapse prevention is a major challenge in the treatment of alcoholism. About 50% of detoxified alcohol users relapse within 3 months. There is evidence that approximately 90 percent of alcohol dependents are likely to experience at least one relapse over the 4-year period following treatment (Tempesta, 2000).

According to Marlatt behavioural model, relapse happens as a response to internal and external stressors. Individual maintain abstinence when they experience a sense of perceived control. A study conducted by Chetty M. 2011 revealed that main cause for relapse is intrapersonal determinanants- they experienced a negative emotional state and secondly, interpersonal determinants like peer pressure and boredom, also identified. If the individual is able to execute effective coping responses in such problem situations, the probability of relapse is considerably lessened. It is important to maintain support system in order to cope and assure that they do not turn to complete reversals (Noble, 2001).

Many studies conducted in the field of alcoholism have concluded that better outcome is possible when alcohol-dependent persons receive non-pharmacological therapy along with pharmacological treatment. According to Jennis (2007) motivation predicts treatment success.

Motivation is an important first step toward any action or change in behavior and all the interventions would be useless until the alcohol-dependent patient was self-motivated to change his or her drinking behavior (Diclemente, 2004). Often, alcohol-dependent in-patients admitted for the treatment of alcohol-related disease or for detoxification are not ready to stay abstinent after discharge.

Therefore, interventions aimed at the increase of motivation and therapeutic efficacies are extremely valuable. The individual's ability to successfully solve the problem and executing effective coping mechanism also influence the treatment outcome. Engaging the family of the alcohol dependents is definitely helpful in providing support for the patients and in helping them to remain under treatment.(Noble, 2001). However, most of these studies were confined

to selective psychotherapy techniques, leaving the comprehensive nurse-led psychosocial treatment to be an unexplored area.

Materials and Methods:-

Objective:-

To assess the effectiveness of specific nursing intervention programe on motivation and relapse among alcohol dependents

Research approach and Research Design:-

Quantitative, experimental with pre-test and post-test control group design.

Participants:-

Alcohol dependents between the age group of 30 to 60 years. A total of 20, 10 each for the experimental and control groups were selected using systematic random sampling technique from a selected hospital in Ernakulam district, Kerala.

Tool for data collection:-

Tool 1: Part A: Demographic data sheet
Part B: Clinical data sheet related to alcoholism
Tool 2 : Stages of Change Readiness and Treatment Eagerness Scale -SOCRATES V8 (19 item scale)
Tool 3: Advance WArning of RElapse -AWARE Questionnaire (28 item scale)

Procedure for data collection:-

Phase I:- On the first day of data collection pre-test was done using Demographic data Sheet, Clinical data sheet related to alcoholism, SOCRATES V8 (19 item scale), and AWARE Questionnaire (28 item scale)

Phase II:-After the pre test, the experimental group was given specific nursing intervention programe on second to 12^{th} day on alternate days. On the 2nd day of pretest the programme started with an individual session of 30 minutes on risk-reward analysis. An individual session of 30minutes of coping skills training and 30 minutes of assertiveness training had given 4th and 6^{th} day. A session on family based intervention of 30 minutes had given on 8^{th} day and family psycho-education on 10^{th} and 12^{th} day.

Phase III:-First post test was conducted one week after the intervention, on 19^{th} day, using the same pre-test assessment scales.
Phase IV. Second post test on 42^{nd} day, one month after intervention was done using the same scales.
Phase V After 3 months of intervention, on 102^{nd} day, third post test was conducted.

Data analysis:-

The analysis was carried out using sigma plot 12.0 (Systat software Inc, USA). A 'p' value of <0.05 was considered to be statistically significant for the interpretation of the result. Frequency and percentage distribution was done to describe the demographic characteristics. The effectiveness of structured intervention programe was analyzed by nonparametric test, [Mann-Whitney rank sum test and Friedman One way RM ANOVA on ranks].

Ethical consideration:-This study was approved by Institutional Human ethics committee of Saveetha University Chennai.

Results:-

Majority of participants from both control (60%) and experimental (50%) were belonged to the age group of 41-50. 50% from control and 60% in experimental group had only primary education. All participants were manual laborers and were married. In control group, 70% and in experimental group 80% were from nuclear family and 70% in control 90% in experimental group were from rural area. In control group 60% and in experimental group 70% had duration of drinking habit more than 20 years. Majority, 90% in both groups had excessive alcoholism for more than one year. 50% from control and 60% in experimental group never had a period of abstinence. All in control group and, 80% in experimental group had a family history of alcoholism and, 80% in control group 100% and in experimental group had a habit of smoking.

Comparison of pre-test and post-test scores of motivation in control and experimental group:-

In the control group the median pre test motivation score was 46.0 and post-test I, post-test II and post-test III were 47.5, 43.5 and 42.5 respectively. The parallel values in experimental group were 40.5in pre test and 68.5, 68.0 and 65.5 in post-test I, II and III respectively. Non parametric 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=4.483, P=0.214). There was significant difference observed in the experimental group between the pre-test and post-test I, II and III (χ = 20.25, 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 = 123, p=0.184). A significant difference was found between the control and experimental group in the post test I, II and III (T =55, p<0.001).

The motivation scores of control and experimental group are presented in table 1

Table 1:-Motivation 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	46.0 (41.25-47.25)	χ 4.483 P 0.214	X 20.25 P <0.001	T 123 P 0.184	T 55 P <0.001	T 55 P <0.001	T 55 P <0.001
Con-Po1	47.5 (44.75-49.25)						
Con-Po2	43.5 93.75-48.25)						
Con-Po3	42.5 (3.75-48.25)						
Exp –Pre	40.5 (37.75-44.5)						
Exp -Po1	68.5 (66.0-77.0)						
Exp -Po2	68.0 (65.75-70.0)						
Exp -Po3	65.5 (58.75-68.25)						

Table 2:-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)						

Comparison of pre-test and post-test scores of relapse in control and experimental group:-
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 experimental group were 150.0 in pre test and 51.5, 65.5 and 72.5 in post-test I, II and III respectively. Non parametric 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 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 2

Discussion:-

Majority of participants in both control (60%) and experimental (50%) were belonged to the age group of 41-50. The results of the study were congruent with the findings of Schuckit (2000) that heavy drinking during the third and fourth decade of life is a common phenomenon. Kadri et al.(2003) stated in their study of socio demographic profile of substance abusers attending a de-addiction centre 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 experimental group had only primary education. All participants were manual laborers and were married. These findings were similar with the findings of Benegal, Velayudhan, Jain (2000) 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 experimental group were from rural area. Significantly higher use of alcohol has been recorded among rural and low socio economic urban sections (Ray R, 1994). All in control group and, 80% in experimental group had a family history of alcoholism. This is similar with the findings of Khosla, Thankappan, Mini and Sarma (2008) that family history of alcohol was the second major predictor for current alcohol consumption.

It was found that the specific nursing intervention programme was effective in improving the motivation and reducing the relapse in alcohol dependents. There was significant difference in median motivation and relapse scores of control and experimental groups. The intervention strategies implemented in the present study are congruent with many findings. The following studies support the findings of the present study indicating that various complementary and alternative therapies have an effect on motivation and relapse of alcohol dependents.

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(Sureshkumar PN,2007).

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 (Noknoy S,2010).

Another study was conducted to examine the effectiveness of MET in motivating alcoholics to reduce problems as a result of drinking. Subjects included 22 alcoholics who received treatments. Each subjects 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 (Srikosai S, 2006).

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

Conclusion:-

The specific nursing intervention programme including risk reward analysis, coping skill training, assertiveness training, family interaction programme and psychoeducation had a positive effect on motivation of clients with alcohol dependence syndrome. The intervention programme helped the clients with alcohol dependence syndrome to acknowledge the facts, to face the reality of their problems and thus motivated them to maintain abstinence, which is a prime measure for successful recovery from alcohol dependence. Being an active and qualified member of the psychiatric multidisciplinary team, the nurses can be the best providers there interventions. Based on the findings of the study, it is concluded that specific nursing intervention programme can significantly improve motivation and prevent relapse of clients with alcohol dependence syndrome.

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