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A quasi experimental study to evaluate the effectiveness of aerobic exercise on withdrawal symptoms among alcohol dependents in selected de-addiction centres Meerut.

[1]Muthu Kumar Thambi Durai, [2]Priya nathan, [3]Arun R

[1]Professor, [2]Asst Professor, [3]Phd Scholar and Professor

[1]Hind Institute of Medical Sciences ,HIMS,

[2]Hind Institute of Medical Sciences ,HIMS,

[3]Desh bagth University

RESEARCH ABSTRACT

Alcoholism is an illness characterized by significant impairment in physiological, psychological or social functioning of the individual. There have always been people who were unable to restrict their use of mind and body altering substances to culturally prescribed limits, and who have fallen into the trap we know today as addiction. People who become addicted to alcohol gradually introduced and desensitized to them over a period of time.

OBJECTIVES OF STUDY:

1. To assess the level of withdrawal symptoms among alcohol dependent in control group and experimental group.
2. To evaluate the effectiveness of aerobic exercise on withdrawal symptoms among alcohol dependent patient in experimental group.
3. To compare the post test score of effectiveness of aerobic exercise on withdrawal symptoms among alcohol dependent patient in experimental group and control group.
4. To find out association between the post test score on level of withdrawal symptoms among alcohol dependent in experimental group with their selected demographic variable.

Methods: A quasi experimental study was conducted on 40 de-addiction patients, 20 in experimental group and 20 in control group selected by purposive sampling technique having kept the inclusion and exclusion criteria. Demographic variables and CIWA-Ar Scale were used to collect the data applying one group pre-test and post-test design.

Major findings of the study:

In this study data depicts that in experimental group 3 patient had absence of withdrawal symptoms, 13 patients had medium level of withdrawal symptoms and 4 patients had high level of withdrawal symptoms. But in post test no patient had alcohol withdrawal symptoms. The mean post test score (2.9) was significantly lower than mean pre-test score (6.15) with the mean difference of 3.25. The standard deviation pre-test (5.843) and post test (3.606). The obtained paired calculated t value was 5.285 which was higher than tabulated value 2.093 at 0.05 level of significance. Thus decrease in mean post test score explains that the aerobic exercise is effective in decreasing the withdrawal symptoms of the alcohol dependent patient in experimental group.

The mean post test score (1.15) is significantly lower than mean pre test score (4.5) with mean difference of 3.35. The standard deviation pre test (4.387) and post test (3.244). The obtained paired calculated t value was 2.06 which is higher than the table value 2.093 at 0.05 level of significance.

In the experimental post test mean score 2.9 is significantly higher than the post test mean score 1.15 of the control group with the mean difference of 1.75, the SD was 3.606 in experimental group and 3.244 in control group. The obtained unpaired t test value was significantly higher i.e2.134 than the tabulated value which was 1.684 at df 38 at 0.05 level of significance.

There was significant association between post test score with the selected demographic variables (age, gender, weight, educational qualification, type of family, duration of consumption etc.) at 0.05 level of significance.

Conclusion: The study could conclude that aerobic exercise was effective in decreasing alcohol withdrawal symptoms of alcohol dependent patient.

CHAPTER-I

INTRODUCTION

It Does Not Matter How Slowly You Go As Long As You Do Not Stop.

-"Confuscious".

National Library of Medicine, if a person has been drinking alcohol for a long period of time suddenly stops drinking, the body can experience certain signs and symptoms of withdrawal. Alcohol withdrawal is likely to start between six hours and a day after the last drink, as reported in American Family Physician. With AWS, they may experience a combination of physical and emotional symptoms, from mild anxiety and fatigue to nausea. Some symptoms of AWS are as severe as hallucinations and seizures. The prevalence of alcohol use disorder (alcohol abuse and dependence in DSM-IV) is estimated to be 14 percent in community based samples in the United States and as high as 40 percent among hospitalized patients. Approximately half of patients with alcohol use disorder experience alcohol withdrawal when they reduce or stop drinking. Prevalence of problem drinking was 12.8% across the age groups with the highest drinking prevalence in the

age group under 40. Excessive alcohol use is the third leading risk factor for disease following tobacco and blood pressure.

World health organization estimates that as in 2010 there were 208 million people with alcoholism worldwide (4.1 % of population over15 years of age.).It often reduces a person's life expectancy by around 10 years. Thus it necessary that addicts should undergo detoxification treatment and alcohol abstinence. In the U.S., 16.3 million adults (10.6 million men and 5.7 million women) were reported as having an alcohol use disorder (AUD). About 1.5 million adults - less than 1 out of every 10 people struggling with alcoholism - were reported to have received treatment at a specialized AUD facility.

Aerobic exercise is any physical activity that makes you sweat, causes you to breathe harder, and gets your heart beating faster than at rest. It strengthens your heart and lungs and trains your cardiovascular system to manage and deliver oxygen more quickly and efficiently throughout your body. Aerobic exercise uses your large muscle groups, is rhythmic in nature, and can be maintained continuously for at least 10 minutes. In addition to strengthening your heart and cardiovascular system, participation in regular aerobic exercise has many health benefits like it helps to reduce stress, tension, anxiety, and depression.

Background of study

Alcoholism is an illness characterized by significant impairment in physiological, psychological or social functioning of the individual. There have always been people who were unable to restrict their use of mind and body altering substances to culturally prescribed limits, and who have fallen into the trap we know today as addiction. People who become addicted to alcohol gradually introduced and desensitized to them over a period of time.

Alcoholism is not only detrimental to the health and welfare of the individual, family, community and society and large. The word "alcoholism" was first coined by "Magnus huss". It was derived from Arabic word, 'alkuhl' means essence. Chronic dependence of alcohol characterized by excessive and compulsive drinking, that produces disturbance in mental and cognitive level of functioning, which interferes with social and economic functioning.

NEED FOR STUDY

Times of India (2021) India is one of the largest producers of alcohol in the world and there has been a steady increase in its production over the last 15 years. India is a dominant producer of alcohol in South-East. Asia, with 65 per cent of the total share, and contributes to around 7 percent of the total alcohol beverage imports into the region. More than two-thirds of the total beverage, alcohol consumption in the region is in India and there has 5 been a steady increase in the production in the country. Production doubled from 887.2 million liters in 1992-93 to 1,654 million liters in 2009-2010. It was expected to treble to 2,300 million liters by 2022.

Alcohol Atlas of India 2019 Studies by Alcohol and Drug Information Centre (ADIC)-India shows an alarming increase in alcohol consumption among adolescents and youth during the last 30 years. The average age of initiation to alcohol in Kerala which was 19 years in1986 has come down to 13 years in 2015.The statistics shows an extreme gender difference in consumption patterns. Prevalence among women has consistently been estimated at less than 5 percent but is much higher in the North-Eastern States. Significantly higher use has been recorded among tribal, rural and lower socio-economic urban sections. A substantial portion of the family income is spent on alcohol, more so in rural households, which also tend to be poor and marginalized (32 percent in the urban and 24 percent in the rural). The statistics shows that alcoholism increases suicidal tendencies, incidents of domestic violence and affects the ability of a person to concentrate at work.

A study conducted by the **National Institute of Mental Health and Neurosciences, Bangalore** and sponsored by the World Health Organization shows that 20 per cent of women reported domestic 6 violence and 94.5 per cent of women identified their husband's alcohol consumption (www.nimhans.org, 12-3-2011). And as a risk factor in the incidents of domestic violence another study by Alcohol Drug Information Centre (ADIC) , India reveals that 40 percent of the Road accidents were alcohol related. There are various types of aerobics such as cow impact aerobics, water aerobics, step aerobics, dance aerobics and sports aerobics. Aerobic exercise done for about 15-20 minutes helps to increase the level of chemicals such as endorphins, catecholamine, adrenaline, serotonin and dopamine in the brain. Aerobic exercise is also linked with improved mental vigor, including reaction time, activity and math skills. Aerobic exercise helps to increase flexibility, reduce withdrawal symptoms .

Marcurus 2016 conducted a study on the impact of an aerobic exercise programmed on post-traumatic stress disorders , anxiety and depression. Results suggested that aerobic exercise programmed for four weeks has a beneficial effect on anxiety and depression. During hospitalization for treatment of Alcohol Dependence, the patient exhibits not only physical symptoms but also psychological and emotional disturbances such as fear, anxiety, helplessness and hopelessness. This will again worsen their mental well-being during hospitalization as well as after they get discharged and this would result in readmission. Hence the investigator felt that it is important to promote physical and mental 7 well-being of the patient with alcohol dependence who is admitted in de-addiction centre . The aerobic exercise will have the potential of avoiding side effects of pharmacological medications because of all these advantages the researcher has introduced aerobic exercise as an effective non – pharmacological management in the treatment of withdrawal symptoms . So the research wanted to find out the effectiveness of aerobic exercise on withdrawal symptoms and has undertaken this study

STATEMENT OF PROBLEM

A quasi experimental study to evaluate the effectiveness of aerobic exercise on withdrawal symptoms among alcohol dependents in selected de-addiction centres Meerut.

OBJECTIVES OF STUDY:

1. To assess the level of withdrawal symptoms among alcohol dependent in control group and experimental group.
2. To evaluate the effectiveness of aerobic exercise on withdrawal symptoms among alcohol dependent patient in experimental group.
3. To compare the post test score of effectiveness of aerobic exercise on withdrawal symptoms among alcohol dependent patient in experimental group and control group.
4. To find out association between the pre-test and post test score on level of withdrawal symptoms among alcohol dependent in experimental group with their selected demographic variable.

RESEARCH HYPOTHESIS

- H1- There will be significant difference in the withdrawal symptoms among alcohol dependent before and after administration of aerobic exercise at 0.05 level of significance as evidenced by CIWA scale.
- H2- There will be significant difference in comparison of mean post test score of aerobic exercise among alcohol dependent patient in experimental and control group at 0.05 level of significance.
- H3- There will be significant association between the pre test and post test level of aerobic exercise among alcohol dependent and selected demographic variable at 0.05 level of significance.

OPERATIONAL DEFINITION:

Evaluate: In this study, refers to effectiveness of aerobic exercise on withdrawal symptoms among alcohol dependent.

Effectiveness: In this study refers to outcome of effectiveness of aerobic exercise onin which will be appraised by decrease in withdrawal symptoms among alcohol dependent patient.

Aerobic Exercise: Brisk exercise that promotes the circulation of oxygen through the blood and is associated with an increased rate of breathing.

In this study refers to moderate walking (3.5 miles/hour), Jumping Rope, Stair Climbing, Treadmill, Aerobic strength Circuit which helps in reducing alcohol withdrawal symptoms

Withdrawal symptoms: In this study refers to patient who is having withdrawal symptoms like sweating, goose-bumps, vomiting, anxiety, insomnia, tremors, confusions, muscle pain etc

Alcohol Dependent : In the study alcohol dependency is characterized by craving, intolerance, preoccupation and continuation despite harmful consequences.

In this study refers to patient who is chronically dependent upon alcohol beverages.

De-Addiction center : In this study refers to area where the alcohol dependent patient are living and getting care and treatment in particular center.

ASSUMPTION:

- Alcohol dependent patient have chronic/acute withdrawal symptoms during treatment.
- Aerobic exercise may helps to resolve anxiety, improve positive relations with other, deal with breathing difficulties, utilize inner resources and find meaning in significant healthy life.

DELIMITATION:

1. The study is delimited to withdrawal symptoms among alcohol dependent in selected de-addiction center.

2.The sample size is limited to 40.

3.Data collection period is limited to 4 weeks.

CONCEPTUAL FRAMEWORK:

According to Polit and Beck (2011), a conceptual framework is an interrelated concept of abstraction that are assembled together in some rationale scheme by virtue of their relevance to confirm her.

It is framework for communicating a particular perception regarding study. The conceptual framework interprets thinking process of the researcher. It is an organized to summarize and to show how the research problem is chosen for the research purpose.

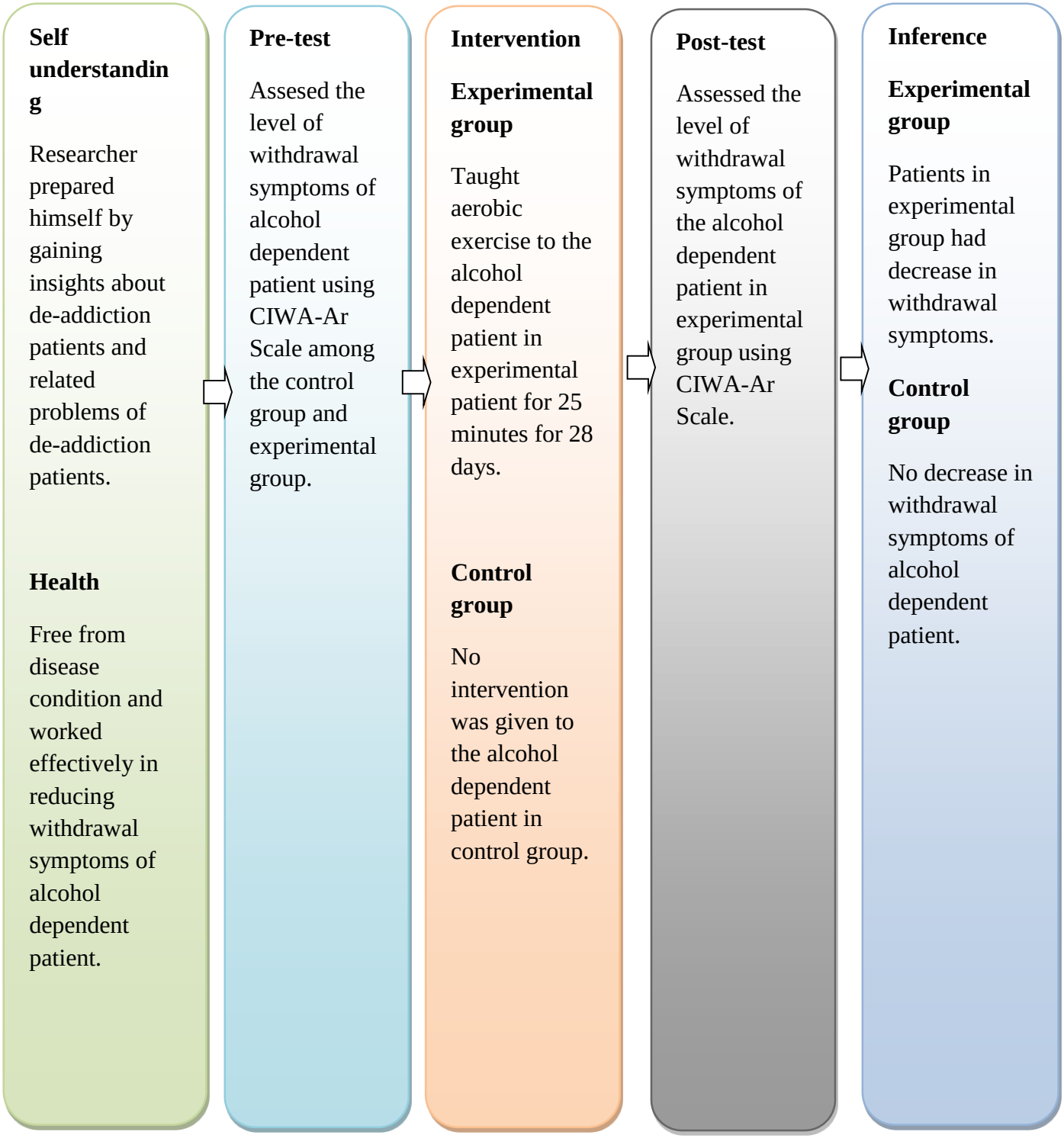
The conceptual framework not only provides meaning to the researcher problem but also helps in developing hypothesis or assumption for the research studies.

It is a researcher plan to develop a conceptual framework based on the existing nursing or other non-nursing theories.

The present study is based on Neuman System Model which was given by Betty Neuman in 1972. The Neuman Systems Model is predominantly holistic in nature, and wellness oriented, viewing the client as an open system, in constant interaction with the environment.

Stressors and the reaction to stressors are important factors on which the model is based. The model is invaluable to nursing practice, as it is geared towards the alleviation of stressors experienced by the client through primary, secondary and tertiary interventions to retain, attain and maintain optimal client stability Neuman. There are four major concepts inherent within the Neuman Systems Model, i.e. client, environment, health and nursing.

SCHEMATIC REPRESENTATION OF CONCEPTUAL FRAMEWORK



SUMMARY

This chapter covered introduction, background of study, need for study, Statement of the problem, Objectives of the study, Operational definition, Hypothesis, Assumption, Delimitation, Ethical Consideration and conceptual Framework.

CHAPTER-II

REVIEW OF LITERATURE

REVIEW OF LITERATURE

Review of literature is essential part of any study of research project. It enhances the knowledge and inspires a clear insight into the problem. Literature review throws light on the studies and their findings reported about the problems under the study.

A review of literature is a body of text which aims to review the reporting points of understanding on a specific topic of research. **(ANA,2000)**

Polit and Hungler state the review of literature provides readers with background for understanding the significance of study.

Reviews are collected on the basis of following headings.

1. Literature related to aerobic exercise.
2. Literature related to effect of aerobic exercise on withdrawal symptoms.
3. Literature related to effect of aerobic exercise on withdrawal symptoms among alcohol dependent.

1. LITERATURE RELATED TO EFFECT OF AEROBIC EXERCISE

J. Brian Byrd, Robert D. Brook et al (2018) conducted a meta-analysis on the effects of endurance exercise on BP found that exercise significantly reduced resting and daytime ambulatory BP consecutively recent review 2010 found again that regular aerobic exercise lowered clinical BP. In both the 2007 meta-analysis and the 2010 review, aerobic exercise appeared to reduce BP more in patients with hypertension compared with those without hypertension. Significantly five small studies in women systematically reviewed in 2011 showed a non-significant change in BP in response to aerobic interval training of walking. Larger trials with increased intensity or frequency of exercise for longer periods tended to be the ones that showed a significant effect. The most comprehensive and latest meta-analysis of all types of exercise clearly demonstrates the ability of aerobic exercise to lower BP within 8 to 12 weeks. In 105 trials, endurance exercise significantly lowered BP by 3.5/2.5 mm Hg. In 2013 AHA Scientific Statement recommends at least 30 minutes of moderate intensity aerobic exercise per day most days of the week. Moderate (or interval)

intensity training is optimal for BP-lowering as well as other aspects of the dose-response effect (i.e., ideal duration of cumulative exercise per week) and the potential impact of different types of aerobic activity requires further investigation.

Laura D Baker, Laura L Frank, Karen Foster et al (2017) conducted a study whose objective of the study was to examine the effects of aerobic exercise on cognition and other biomarkers associated with Alzheimer disease pathology for older adults with mild cognitive impairment, the design of the study was Six-month, randomized, controlled, clinical trial. The research was conducted in Veterans Affairs Puget Sound Health Care System clinical research unit. Thirty-three adults (17 women) with amnestic mild cognitive impairment ranging in age from 55 to 85 years (mean age, 70 years). Participants were randomized either to a high-intensity aerobic exercise or stretching control group. The aerobic group exercised under the supervision of a fitness trainer at 75% to 85% of heart rate reserve for 45 to 60 min/d, 4 d/week for 6 months. The control group carried out supervised stretching activities according to the same schedule but maintained their heart rate at or below 50% of their heart rate reserve. The findings suggests that physical conditioning has positive effects not only on normal aging but also age related neurogenerative disease.

Markus Gerber, Serge Brand, Catherine Elliot, Johannes Beck et al (2018) conducted study in which the main purpose of this study was to pilot-test the potential outcomes of a 12-week exercise training to generate hypotheses for future larger scale studies. The sample consisted of 12 male participants scoring high on the MBI emotional exhaustion and depersonalization subscales. The training program took place in a private fitness center with a 17.5 kcal/kg minimum requirement of weekly energy expenditure. The key findings are that increased exercise reduced overall perceived stress as well as symptoms of burnout and depression. The magnitude of the effects was large, revealing changes of substantial practical relevance. Additionally, profiles of mood states improved considerably after single exercise sessions with a marked shift towards an iceberg profile. Among burnout patients, the findings provide preliminary evidence that exercise has the potential to reduce stress and prevent the development of a deeper depression. This has important health implications given that burnout is considered an antecedent of depressive disorders.

Marco Y C Pang, Janice J Eng, Andrew S Dyson et al (2015) conducted an experimental study to determine whether aerobic exercise improves aerobic capacity in individuals with stroke. The design used was randomized controlled trials. Participants were patient with stroke and intervention given was aerobic exercise training at improving the aerobic capacity. The outcome was divided into Primary outcomes: aerobic capacity (peak oxygen consumption (VO2), peak workload). Secondary outcomes: walking velocity, walking endurance. Data analysis: The methodological quality was assessed by the PEDRO scale. Meta-analyses were performed for all primary and secondary outcomes. The exercise intensity ranged from 50% to 80% heart rate reserve. Exercise duration was 20–40 min for 3–5 days a week. The total number of subjects included in the studies was 480. All studies reported positive effects on aerobic capacity, regardless of the stage of stroke recovery. There is good evidence that aerobic exercise is beneficial for improving aerobic capacity in people with mild and moderate stroke. Aerobic exercise should be an important component of stroke rehabilitation.

Andreas Strohle, Christian Feller, MarliesOnken, Frank Godemann et al (2015) conducted study to test the effect of regular physical activity is anxiolytic for both healthy subjects and patients with panic disorder. However, the acute anti-panic activity of exercise has not yet been studied systematically. The effects of quiet rest or aerobic treadmill exercise (30 minutes at 70% of maximum oxygen consumption) on cholecystokinin tetrapeptide (CCK-4)-induced panic attacks were studied in a crossover design in 15 healthy subjects. The effects were measured with the Acute Panic Inventory. Panic attacks occurred in 12 subjects after rest but in only six subjects after exercise. Aerobic exercise has an acute anti-panic activity in healthy subjects. The optimum intensity and duration of acute exercise for achieving anti-panic effects will have to be characterized. Regular physical activity is anxiolytic for both healthy subjects and patients with panic disorder. The effects of quiet rest or aerobic treadmill exercise (30 minutes at 70% of maximum oxygen consumption) on cholecystokinin tetrapeptide (CCK-4)-induced panic attacks were studied in a crossover design in 15 healthy subjects. The effects were measured with the Acute Panic Inventory. Panic attacks occurred in 12 subjects after rest but in only six subjects after exercise.

Seamus P Whealton, Ashleys Chin, Jiang He et al (2012) conducted a study to meta-analyse randomized, controlled trials was conducted to determine the effect of aerobic exercise on blood pressure. 54 randomized, controlled trials (2419 participants) whose intervention and control groups differed only in aerobic exercise. Using a standardized protocol and data extraction form, three of the investigators independently abstracted data on study design, sample size, participant characteristics, type of intervention, follow-up duration, and treatment outcomes.In a random-effects model, data from each trial were pooled and weighted by the inverse of the total variance. Aerobic exercise was associated with a significant reduction in mean systolic and diastolic blood pressure. Aerobic exercise reduces blood pressure in both hypertensive and normo tensive persons. An increase in aerobic physical activity should be considered an important component of lifestyle modification for prevention and treatment of high blood pressure.

F. Dimeo, M. bauer, I Varahram, G Proest et al (2010) conducted the study which indicated that physical activity can reduce the severity of symptoms in depressed patients. Some data suggest that even a single exercise bout may result in a substantial mood improvement. To evaluate the short term effects of a training programme on patients with moderate to severe major depression. Twelve patients (mean (SD) age 49 (10) years; five men, seven women) with a major depressive episode according to the Diagnostic and Statistical Manual of the American Society of Psychiatry (DSM IV) criteria participated. Training consisted of walking on a treadmill following an interval training pattern and was carried out for 30 minutes a day for 10 days. At the end of the training programme, there was a clinically relevant and statistically significant reduction in depression scores (Hamilton Rating Scale for Depression. Aerobic exercise can produce substantial improvement in mood in patients with major depressive disorders in a short time.

P M Dubbert, **W C Cushmanetal(2010)** conducted a study to determine the antihypertensive efficacy of aerobic exercise training in mild essential hypertension, a prospective randomized controlled trial was conducted comparing an aerobic exercise regimen to a placebo exercise regimen, with a crossover replication of the aerobic regimen in the placebo exercise group. The study took place in an outpatient research clinic in a university-affiliated Veterans Administration medical center. Twenty-seven men with untreated diastolic blood pressure (DBP) of 90-104 mm Hg were randomized to the two exercise regimens. The aerobic regimen consisted of walking, jogging, stationary bicycling, or any combination of these activities for 30 minutes, four times a week, at 65-80% maximal heart rate. BP changes were not associated with any significant changes in

weight, body fat, urinary electrolytes, or resting heart rate. This randomized controlled trial provides evidence for the independent BP lowering effect of aerobic exercise in un-medicated mildly hypertensive men.

Thomas M Dilorenzo, Eric P Bargmen, Renee Stucky Ropp, Gless N Brassington et al (2009) conducted the study for 12-week aerobic fitness program using bicycle ergometry (and confirmed increases in fitness). Following completion of a 12-week aerobic fitness program (and through 12 months of follow-up), 82 adult participants completed the Beck Depression Inventory, Profile of Mood States, State-Trait Anxiety Inventory, and the Tennessee Self-Concept Scale. Exercise participants experienced a positive fitness change and psychological improvement over the initial 12-week program compared to a control group. At 1 year follow-up, physiological and psychological benefits remained significantly improved from baseline. Overall, results indicate that exercise-induced increases in aerobic fitness have beneficial short-term and long-term effects on psychological outcomes. We postulate that participants in the exercise group did not increase the amount of weekly exercise they performed over the 12-month follow-up period and thus the maintenance of the psychological improvements occurred concurrent with equal or lesser amounts of exercise.

A Kiyonaga, K Arakawa, H Tanaka et al (2005) conducted the study on twelve patients with essential hypertension (WHO stages I-II) were subjected to mild aerobic exercise for 10 to 20 weeks. After exercise therapy we found significant reductions in plasma catecholamine levels, and increases in levels of plasma prostaglandin E and the urinary excretion of sodium. A reduction in systolic/diastolic (mean) pressures by more than 20/10 (13) mm Hg was seen in 50% of patients after 10 weeks and in 78% after 20 weeks of exercise. These results indicate that exercise therapy is a potent non-pharmacological tool for the treatment of essential hypertension, especially of the low renin type. Both diminished sympatho-adrenergic activity and enhancement of prostaglandin mechanisms might be responsible for the falls in arterial pressure.

2. LITERATURE RELATED TO EFFECTIVENESS OF AEROBIC EXERCISE ON WITHDRAWAL SYMPTOMS AMONG ALCOHOL DEPENDENT

Dini Davis et.al. (2019) researched that aerobic exercise can promote relaxation and improve cardiac activity there by improve the health benefits of alcoholic dependents. To assess the effectiveness of aerobic exercise on selected alcohol withdrawal symptoms of alcoholic dependents. The research design used in this study was Pretest-Post test control group design. Total 40 AWS patients randomly selected (20 experimental, 20 control group) by purposive sampling. The tools used were CIWA (clinical institute withdrawal assessment) scale and baseline performa. Aerobic exercise was administered for 20 minutes daily; post test was conducted on the 5th day for both groups. There was significant decrease in AWS (alcohol withdrawal symptoms) of alcohol dependents before and after aerobic exercise program. The study concluded that there was significant reduction in AWS after the aerobic exercise programme.

Indian Journal of Public Health Research & Development et al (2019) conducted the study whose aim of the study was to find out the effect of exercise along with medications in individuals with alcohol withdrawal syndrome and to compare their result with individuals taking medications alone for alcohol withdrawal syndrome. After getting the consent, the 40 samples were equally divided and allocated into two groups–group A and group B. Group A received exercise in the form of relaxation exercise, breathing exercise, balance exercise (eg. Frenkel coordination) and low intensity high repetition endurance training along with medications. Group B received medications alone prescribed by consent registered medical practitioners in their rehabilitation centre. The intervention was carried out for 45 days. The exercise intervention for group A carried out for 5 days/week and 2 session/day. The endurance training was progressed once in a week. The post score was recorded. The pre and post data were analysed. After giving them exercise intervention for 45 days, the signs and symptoms reduced to greater extent and concluded that exercise along with medication shows greater improvement among the individuals with alcohol withdrawal syndrome.

Kurt Jensen, Charlotte Nielsen, Claus Thorn Ekstrom (2018) conducted the study whose aim was to compare the effect of exercise training on physical capacity and alcohol consumption in alcohol use disorder (AUD) patients. One hundred and five AUD patients were randomly assigned to treatment as usual combined with running and brisk walking for 30–45 min twice a week, either in small supervised groups (GR) or

individually (IND), or to a control group with no running (C). Assessments were made after 6 and 12 months of training. Alcohol intake decreased from 219 to 41 units per 30 days as the average for the entire sample with no significant difference of drinking outcomes. We saw an effect on drinking habits after running in both groups. However, no additional effect was seen when compared with the control group. A drop in the training frequency during the intervention might have resulted in an insignificant training stimulus.

Kirsten K.Roessler, Randi Bilberg, Kurt Jensen et al (2017) conducted a study to examine whether physical activity as an adjunct to outpatient alcohol treatment has an effect on alcohol consumption following participation in an exercise intervention of six months' duration, and at 12 months after treatment initiation. The study is a randomized controlled study with three arms: Patients allocated to (A) treatment as usual, (B) treatment as usual and supervised group exercise, (C) treatment as usual and individual physical exercise. No direct effect of physical exercise on drinking outcome was found. Moderate level physical activity was protective against excessive drinking following treatment. A dose-response effect of exercise on drinking outcome supports the need for implementing physically active lifestyles for patients in treatment for alcohol use disorder.

Esther S Geisen, Phillip Zimmer, Wilhelm Bloch (2016) conducted the study evaluates the feasibility of an exercise program for patients with severe alcohol dependence in a long-term residential setting and the ability of such a program to improve their level of physical activity and quality of life. Forty-four (44) participants were assigned to two groups, an intervention group experiencing the exercise program and a control group which did not participate in the program. Another matched control group, without the health issues of the other two groups, was also used as a basis of comparison. The study was designed as a year-long longitudinal controlled study with a pre-post design. Measures used to determine the effectiveness of the intervention were attendance records, the SF-36 questionnaire, and monitoring devices of daily activity. Active participants in the exercise program showed a significant improvement in physical activity and an enhanced quality of life.

Richard A brown, Mark A.Prince, Haruka Minami et al (2016) conducted the current study examined the acute effects of exercise on changes in mood, anxiety, and craving from pre- to post-exercise at each week of a 12-week moderate intensity exercise intervention with sedentary alcohol dependent adults. Twenty-six participants in the exercise condition of a larger randomized clinical trial (Brown et al., 2014) exercised in

small groups at moderate intensity for 20–40 min per session. Participants rated mood, anxiety, and cravings in the present moment before and after each exercise session over the course of the 12-week intervention. Join point analyses revealed that the pre-post exercise changes in mood increased, anxiety remained stable, and craving diminished across the 12 weeks. This study provides provisional support for a change in mood, anxiety and alcohol cravings for the role of exercise in the early recovery period for alcohol dependence. Acute single bouts of moderate-intensity exercise may help individuals with alcohol dependence manage mood, anxiety, and craving thereby reducing relapse risk, but further research is needed with a more rigorous study design.

Davy Van Campfort, Andreas Lundin, Brendon Stubbs et al (2016) conducted the study to conduct a systematic review and meta-analysis investigating effects of exercise for people with alcohol use disorders (AUDs) across multiple health outcomes. Systematic review and random effects meta-analysis with meta-regression analyses. 21 studies and 1204 unique persons with AUDs (mean age 37.8 years, mean illness duration 4.4 years) were included. Exercise did not reduce daily alcohol consumption. Available evidence indicates exercise appears not to reduce alcohol consumption, but has significant improvements in other health outcomes, including depression and physical fitness. Additional long-term controlled studies of exercise for AUDs are required.

Matts Hallgren. Karin Romberg, Ann Sophie Bakshi et al (2014) conducted the pilot study explores the feasibility of yoga as part of a treatment program for alcohol dependence. Eighteen alcohol dependent patients were randomized to receive either treatment as usual or treatment as usual plus yoga. Assessments were taken at baseline and six month follow-up. Treatment as usual consisted of psychological and pharmacological interventions for alcohol dependence. The 10-week yoga intervention included a weekly group yoga session. Participants were encouraged to practice the yoga movements at home once per day.Yoga was found to be a feasible and well accepted adjunct treatment for alcohol dependence. Alcohol consumption reduced more in the treatment as usual plus yoga group (from 6.32 to 3.36 drinks per day) compared to the treatment as usual only group (from 3.42 to 3.08 drinks per day). The difference was, however, not statistically significant ($p = 0.17$).Larger studies are needed to adequately assess the efficacy and long-term effectiveness of yoga as an adjunct treatment for alcohol dependence.

Michael Ussher, Amandeep K Sampuran, ReenaDoshi, Robert west, D Collin Drummond (2010) conducted a study to examine whether a brief bout of moderate intensity exercise reduces alcohol urges and mood disturbance in those with alcohol dependence. A counterbalanced cross-over design (within-subjects). A hospital-based alcohol rehabilitation clinic. Twenty males and females who had recently completed alcohol detoxification. Relative to baseline, there was a significant decline in alcohol urges for the experimental condition versus control during exercise (P = 0.02) but not at any measurement point following exercise. At baseline, by chance, there was a non-significant tendency for there to be higher ratings of alcohol urges for the experimental condition versus the control. For mood, there was no evidence for significant differences between treatment conditions for baseline versus any subsequent measurement point. A brief bout of moderate intensity exercise may provide some short-term relief from alcohol urges during exercise. Further studies are required to replicate the present findings and to confirm whether any moderating effect of exercise on alcohol urges is sustained following exercise.

3. LITERATURE RELATED TO EFFECTIVENESS OF AEROBIC EXERCISE ON WITHDRAWAL SYMPTOMS

Daniel C. McCartney, Ashling C Ishik, Kieron Rooney et al (2020) conducted the study on to assess the effect of daily aerobic cycling exercise versus control stretching on sleep quality during inpatient cannabis withdrawal in treatment-seeking dependent cannabis users. Participants performed 35 min of monitored activity per day during the Treatment phase. The intervention group (n = 19) cycled at ~60% aerobic capacity (VO_{2max}), while the control group (n = 12) performed a stretching routine. Objective sleep quality was measured nightly throughout the study using wrist actigraphy ratings of subjective sleep quality were also recorded during the Treatment phase. There were no group differences in sleep measures during the Baseline phase (all $p > .05$). In contrast, the Cycling group exhibited improvements in sleep duration and sleep efficiency during the treatment phase compared to the Baseline phase. Cycling also increased sleep duration, decreased average wake bout and tended to increase sleep efficiency compared to stretching during the Treatment phase. Subjective sleep quality ratings did not differ between groups ($p > .10$). These preliminary findings suggest that moderate-intensity aerobic exercise may attenuate the sleep disturbances associated with cannabis withdrawal.

Premtip Thaveeratitham, Ekalak Sittipornvarakul, Prawit Janwantanakul et al (2017) conducted the study to review randomized controlled trials to gain insight into which types of exercise are effective for smoking cessation. Meta-analysis was conducted to examine the effectiveness of the type of exercise on smoking cessation. The findings revealed low quality evidence for the effectiveness of yoga for smoking cessation at the end of the treatment. The evidence found for no effect of aerobic exercise, resisted exercise, and a combined aerobic and resisted exercise program on smoking cessation was of low to moderate quality. Furthermore, very low to low quality evidence was found for no effect of physical activity on smoking cessation. There was no effect of aerobic exercise, resisted exercise, physical activity and combined aerobic and resisted exercise on smoking cessation. There was a positive effect on smoking cessation at the end of treatment in the program where yoga plus cognitive-behavioural therapy (CBT) was used.

David J. Allsop, Kieron Rooney, Jonathan C. Arnold (2017) conducted the study. A prospective, single blind, parallel-group RCT comparing daily aerobic exercise to a control stretching intervention. A seven-day inpatient hospital admission, with follow-up at 28 days' post-discharge. The study population will be 80 cannabis dependent adults seeking assistance with cannabis withdrawal. Participants in the Intervention group will undergo 35 min of aerobic exercise daily, at 60% of their VO_2 Max, on an exercise bicycle. The Control group will participate in a structured non-aerobic daily stretching routine for 35 min daily. Both groups receive treatment as usual in the withdrawal management unit of the hospital. The primary outcome measure is the severity of cannabis withdrawal symptoms assessed daily using the Cannabis Withdrawal Scale and the Marijuana Cravings Questionnaire – pre and post exercise, across the week.

Ali A Weinstein, Lisa M.K Chin, Randell E. Keyser et al (2015) conducted the study to investigate the effectiveness of an exercise intervention for decreasing fatigue severity and increasing physical activity in individuals with pulmonary arterial hypertension (PAH). A small, phase 2 randomized clinical trial of the effect of aerobic exercise training on fatigue severity and physical activity in patients with idiopathic or PAH associated with other conditions was conducted. Twenty-four patients with PAH (24 female; age: 54.4 ± 10.4 years participated in the study. The aerobic exercise training consisted of 24–30 sessions of treadmill walking for 30–45 min per session at an intensity of 70–80% of heart rate reserve, three days per week over the 10 weeks. After 10-weeks of intervention, patients receiving aerobic exercise training plus education reported routinely engaging in higher levels of physical activity and a decrease in fatigue severity.

The 10-week aerobic exercise training intervention resulted in increased physical activity and decreased fatigue in individuals with PAH.

CHAPTER-III

RESEARCH METHODOLOGY

The methodology of research indicates the general pattern of organizing the procedure for gathering valid and reliable data for an investigation. (Burn and Groove 2000)

This chapter deals with the research approach, research design, variable under the study, setting, population, the sampling technique. It further deal with the development and description of the tool, lesson plan of effectiveness of aerobic therapy on withdrawal symptoms among alcohol dependent patient, pilot study procedure for data collection and plan for data analysis.

RESEARCH APPROACH

A research approach tells the researcher as what to collect and how to analyze it. It is overall plan or blueprint chosen to carry out the study. It also suggests the possible conclusion to be drawn from the data. Evaluative research approach was used for this study to accomplish the objectives of study.

RESEARCH DESIGN

Research design refers to strategies that the researcher adopts to develop information that is accurate, objective and meaningful.

According to Pollit and Beck (2011) “research design is overall plan for addressing a research question, including specification for enhancing the integrity of the study”.

TABLE 1: Symbolic representation of the research design (Quasi Experimental research design)

GROUP	PRE-TEST	INTERVENTION	POST-TEST
EXPERIMENAL (20)	A1	X	A2
CONTROL (20)	A1	-	A2

Keys:

Experimental group:

- A1 - pre-assessment level of withdrawal symptoms among alcohol dependent patient before administering aerobic exercise.
- X - Aerobic exercise
- A2- post assessment of withdrawal symptoms among alcohol dependent after administering aerobic exercise.

Control Group:

- A1- pre-assessment level of withdrawal symptoms among alcohol dependent patient before administering aerobic exercise.
- A2- post assessment of withdrawal symptoms among alcohol dependent after administering aerobic exercise.

Group	Day 1		Day 28
	Pre-test	Treatment	Post-test
Experimental group (20)	To assess level of withdrawal symptoms among alcohol dependent patient before administering aerobic exercise.	Administration of aerobic exercise	To evaluate the level of withdrawal symptoms after administration of aerobic exercise
Control group (20)	To assess the level of withdrawal symptoms among		To evaluate the level of withdrawal symptoms without

	alcohol dependent group		administration of aerobic exercise

Table 2: Schematic representation of Research Design

VARIABLES

According to Polit and Beck (2015) "A variable is the name implies, is something that varies. Quantitative researchers seek to understand how or why things vary, and to learn how difference in one variable relate to difference in another."

A variable is a symbol to which numerators or values are assigned.

INDEPENDENT VARIABLE

"The independent variable is a condition or characteristics that the researcher manipulates or controls in an attempt to ascertain their relationship to observed phenomenon.

In this study, independent variable is Aerobic Exercise.

DEPENDENT VARIABLE

The dependent variable is the condition or characteristics that appears or disappears as a result of independent variable.

In this study dependent variable is level of withdrawal symptoms among alcohol dependent patients.

SETTING Of THE STUDY

According to Polit and Beck (2015) "Setting is the physical location and condition in which data collection takes place in the study".

The selection of the appropriate set up is important because the set up can influence the way people behave or feel and how they respond. The researcher needs to decide where the data will be collected.

The study was conducted in Sanskriti de-addiction center at Meerut.

Criteria for selection of setting:

- Administration approval and expectation of co-operation for the study.
- Familiarity with the setting.
- Geographical proximity of the setting.
- Feasibility of conducting the study.
- Easy access to subjects

POPULATION

Polit and Beck (2015) describes the population as an entire aggregation of case that meet at designated set of criteria. The need for defining a population for a research project arises out of the requirement to specify the group on which the result f the study can be applied.

The population will be easily accessible to the investigator since the researcher permission will be taken from the concerned authorities.

The target population was **alcohol dependent patients.**

SAMPLE

Polit and Beck (2015) states that "sample is a subset of population selected to participate in the research study" and sampling refers to " the process of selecting a portion of the population to represent the entire population". The process of sampling makes it possible to draw valid inference or generalization on the basis of careful observation of variables within relatively small population. Sampling is necessary because it is more economical and efficient to work with small group of elements.

Polit and Beck (2015) states that, the choice of sampling technique depends on the nature of the problem, the kind of variables included in the study, the types of researcher and number of sample unit.

The sample was selected in Sanskriti De-addiction centre at Meerut.

Sampling technique:

According to Polit and Beck (2015) states that the choice of sampling technique depends on the nature of the problem, the kind of variables included in the study, the types of research and number of sample unit.

In this present study Non-probability purposive sampling techniques was**used for collecting the sample.**

SAMPLE SIZE

Sample size include in the study was 40 (20 in experimental group and 20 in control group)

CRITERIA FOR SAMPLE SELECTION

INCLUSION CRITERIA

- Patient who speaks English/Hindi.
- Patient who are willing to participate in study.
- Patient who are alcohol dependent with withdrawal symptoms.

EXCLUSION CRITERIA

- Patient who does not speak English/Hindi.
- Patient who are not willing to participate in study.
- Patient who are not alcohol dependent and without withdrawal symptoms.
- Patient admitted with other substance abuse.
- Patient who are already in other therapies.

TOOLS AND METHODS OF DATA COLLECTION

The most important and crucial aspect of any investigation is the collection of appropriate information, which provides necessary data for study. The phenomenon in which a researcher is interested must ultimately be translated into data that can be analyzed.

Polit and Beck (2015), stated that instrument selected in research should as far as possible be the vehicle that would best obtain data for drawing conclusion pertinent to the study and add to the body of knowledge in a discipline.

Based on the conceptual framework and objectives of the study the tools used to collect the data are socio-Demographic variables and Standardized CIWA-Ar Scale.

Tool 2: Standardized CIWA- Ar Scale. The scoring direction are:

1. 0-9: withdrawal symptoms absent
2. 10-19: mild to moderate withdrawal symptoms
3. More than 20: severe withdrawal

In its questionnaire form, CIWA-Ar scale is easy to administer, and it helps both researchers and professionals understand about withdrawal symptoms among alcohol dependent patient. The questions are easy to understand and are of general nature, and it's also relatively free from bias.

The scale consists of 10 questionnaires that measures the level of withdrawal symptoms. At the level of of education, the alcohol dependent patients did not understand the English language so it was used in the translation of Hindi language.

TABLE 3: Data collection tools and techniques

Sr. no.	Tool	Purpose	Data collection technique
1.	Part 1 Demographic Variable	1. To determine the socio-demographic sample	Interview and self-administered
2.	Part 2 standardized CIWA scale	2. To assess level of withdrawal symptoms	Interview and self – administered

DEVELOPMENT OF TOOLS

The following criteria will be involved in the development of the tool-

1. Review of research and non-research literature and development of the tools
2. Assessing items of content validity

CONTENT VALIDITY OF TOOLS

For the content validity of the tools, criteria will be prepared which consist of items. The tools along with the request letter, statement of the problem, objectives, standardized CIWA scale and demographic variables will be submitted to experts from different of field psychiatric department for validation. Based on the expert suggestion, necessary modification was made.

RELIABILITY OF THE TOOLS

According to Suresh K.Sharma (2011) The reliability of the tool is the degree of consistency with which it measures the attributes it is supposed to measure. The reliability of the standardized CIWA scale was decided. (r= 0.8)

PILOT STUDY

A pilot study is preliminary trial of research which is essential to the development of an extensive program.

According to Treece and Treece (1996) “Pilot study is the miniature trial run of the methodology, planned for a major project. The purpose of pilot study is twofold:- to make improvement in the research project and to detect a problem that must be eradicated before the major study I attempted”.

According to Polit and Beck (2015) “A pilot study often involves a small scale of the entire study, testing not only the instruments but also the sampling plan, intervention, the study procedures and so on”.

The purpose of the pilot study is to find out their feasibility of conducting the study, assess the effectiveness of Aerobic Exercise and deciding the plan for data analysis.

After taking administrative approval from the concerned authority from Principal and HOD Of MHN department, the pilot study was conducted for 7 days in selected CSSH Meerut.

PROCEDURE FOR FINAL DATA COLLECTION

"Formal administrative permission was taken from the respective authority. Final data collection has done according to date decided by the committee members twenty samples in each group was selected by the purposive sampling technique. To obtain free response, the purpose of the study was explained and the subjects was assured about confidentiality of their response".

STEPS: EXPERIMENTAL GROUP

- The researcher will introduce himself and purpose of study was explained to the patients.
- The patients was explained about nature of study and heir expected participation.
- Verbal and written consent will be taken and Confidentiality was assured.
- To obtain free response the purpose of the study was explained.
- On 1st day pre-test level of withdrawal symptoms was assessed using CIWA-Ar Scale and 2nd day onwards Aerobic Exercise was administered which include moderate walking (3.5 miles/hour), Jumping Rope, Stair Climbing, Treadmill, Aerobic strength Circuit which helps in reducing alcohol withdrawal symptoms. At the end of aerobic exercise administration feedback from the patients was taken in experimental group for seven days with the duration of 25 minutes.
- On the day 28th post-test level of effectiveness of aerobic exercise on alcohol withdrawal symptoms among alcohol dependent patient was assisted.

STEPS: CONTROL GROUP

- The researcher introduced himself and purpose of study was explained to the patients.
- The patient was explained about nature of study and heir expected participation.
- Verbal and written consent was taken and confidentiality was assured.
- To obtain free response the purpose of the study was explained.
- On 1st day pre-test level of withdrawal symptoms wasassessed using CIWA-Ar Scale.
- On 28th day post-test was done.

PLAN FOR DATA ANALYSIS

- The data analysis is conducted to organize and ge meaning to the data.

Section 1-

- Frequency and percentage distribution will be used to analyze the demographic variables of patient in experimental and control group.

Section 2-

- Frequency and percentage of pre-test and post-test score level of alcohol withdrawal symptoms among alcohol dependent patient of the experimental and control group.
- Mean, standard deviation and mean difference of pre-test and post-test of level of alcohol withdrawal symptoms among alcohol dependent patient in experimental and control group and paired "t" test score of experimental and control group.
- Independent "t" test was used to compare the effectiveness of aerobic exercise on alcohol withdrawal symptoms among alcohol dependent patient between the experimental and control group.
- Compare the post-test level of alcohol withdrawal symptoms in experimental and control group.

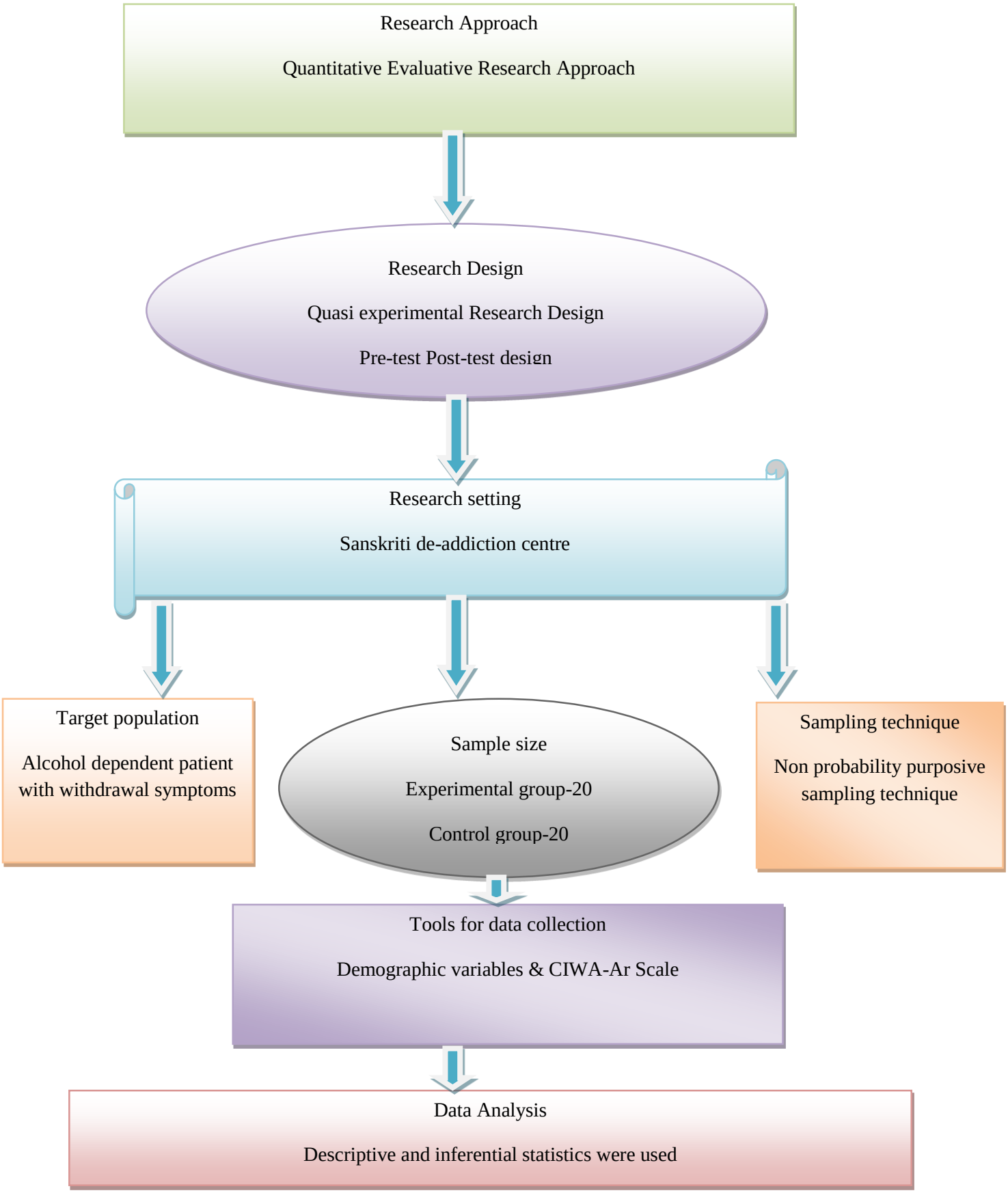
Section 3-

- Chi square test was used to find out the association between post-test and pre-test score on effectiveness of aerobic exercise on alcohol withdrawal patient among alcohol dependent patient in experimental group with their selected demographic variables.

SUMMARY

This chapter has covered research approach, research design, variables under study, population, sample, sampling technique, description of data collection tool, content validity, pilot study, procedure for final data collection and plan for data analysis.

FIGURE-2: SCHEMATIC REPRESEANTAION OF RESEARCH METHODOLOGY



Research is based on its type of design and the statistical technique used to achieve the aim of scientific evaluation of empirical findings in nursing sciences. However, the type of research study and analysis of data should be decided according to its proposed aim, objective and availability of resources in addition to ethical consideration. Scientific method of statistical analysis support the study within depth and good understanding of any branch of knowledge. It facilitates interpretation of the facts and application in nursing practice.

This chapter deals with analysis and interpretation of data obtained from 40 alcohol dependent patient having withdrawal symptoms and purposively selected and distributed to experimental and control group i.e. 20 in experimental and 20 in control group to evaluate effectiveness of aerobic exercise on level of withdrawal symptoms among alcohol dependent patient at selected de-addiction center at Meerut.

According to Polit and Beck (2009) " data analysis is the process of organizing and synthesizing data in such a way that research question can be answered. " The purpose of data analysis, regardless of type of data one has, is to impose some order on a large body of information so that can be synthesized, interpreted and communicated.

The data will be collected using standardized CIWA-Ar scale and structured interview schedule consisting of socio-demographic data. Data was analyzed and interpreted by using both descriptive and inferential statistics. Data was calculated and concluded in master data sheet. The purpose of data analysis is to organize data into interpretable forms so that research problems could be studied and tested. Analysis is categorizing, ordering and summarizing of data, making sense of results and examining the implication of finding in a broader context.

Analysis and interpretation of data were based on the objectives of the study and hypothesis was tested.

OBJECTIVES OF STUDY

1. To assess the level of withdrawal symptoms among alcohol dependent in control group and experimental group.
2. To evaluate the effectiveness of aerobic exercise on withdrawal symptoms among alcohol dependent patient in experimental group.
3. To compare the post test score of effectiveness of aerobic exercise on withdrawal symptoms among alcohol dependent patient in experimental group and control group.
4. To find out association between the Pre test and post test score on level of withdrawal symptoms among alcohol dependent in experimental group with their selected demographic variable.

ORGANIZATION AND PRESENTATION OF DATA

Analysis and interpretation was done as per the objectives of the study and the hypothesis were formulated. Descriptive and inferential statistics were used for analysis of the data. The data and findings were organized and presented under the following section.

Section-1

1.1 Frequency and percentage distribution were used to analyze the demographic data of patient with withdrawal symptoms.

Section-2

2.1 Frequency and percentage distribution of the level of withdrawal among alcohol dependent patient in experimental group.

2.2 Frequency and percentage distribution of level of withdrawal symptoms among alcohol dependent patient in control group.

2.3 Evaluate effectiveness of aerobic exercise on withdrawal symptoms of alcohol dependent patient in experimental group.

2.4 Evaluate effectiveness on withdrawal symptoms among alcohol dependent patient in control group.

2.5 Compare the post test score of effectiveness of aerobic exercise on level of withdrawal symptoms among alcohol dependent patient score in experimental and control group.

Section-3

3.1 To find the association between post-test score on level of effectiveness of aerobic exercise on alcohol dependent patient among experimental group with their selected demographic variables.

Section-1

TABLE-1

1.1 FREQUENCY AND FREQUENCY PERCENTAGE DISTRIBUTION OF ALCOHOL WITHDRAWAL PATIENT IN POST TEST GROUP n=40

Gender	**Control**		**Experimental**	
	Frequency	**Percentage**	**Frequency**	**Percentage**
	20	50	20	50%

Age	**Control**		**Experimental**	
	Frequency	**Percentage**	**Frequency**	**Percentage**
19-24	5	25%	4	20%
25-30	10	50%	12	60%
31-36	3	15%	2	10%
36 and above	2	10%	2	10%

	Control		Experimental	
Education	**Frequency**	**Percentage**	**Frequency**	**Percentage**
No formal education	1	5%	2	10%
Primary education	8	40%	5	25%
Secondary education	5	25%	10	50%
Higher education	4	20%	3	15%
Graduate	2	10%		

Physical appearance	**Control**		**Experimental**	
	Frequency	**Percentage**	**Frequency**	**Percentage**
Excited	6	30%	7	35%
Nervous	10	50%	8	40%
Well groomed	2	10%	3	15%
Dull	2	10%	2	10%

Type of family	**Control**		**Experimental**	
	Frequency	**Percentage**	**Frequency**	**Percentage**
Nuclear	2	10%	1	5%
Extended	18	90%	19	95%
Constituted				

Occupation	**Control**		**Experimental**	
	Frequency	**Percentage**	**Frequency**	**Percentage**
Govt job/Private job	10	50%	5	25%
Self employed	4	20%	12	60%
Pensioner				
Unemployed	6	30%	3	15%

Marital status	**Control**		**Experimental**	
	Frequency	**Percentage**	**Frequency**	**Percentage**
Married	18	90%	15	75%
Unmarried	2	10%	5	25%
Widow				
Divorced				

Duration of consumption	Control		Experimental	
	Frequency	Percentage	Frequency	Percentage
6 month-1 year	5	25%	2	10%
1 year-3 year	10	50%	5	25%
3 year-5 year	3	15%	10	50%
Above 5 year	2	10%	3	15%

Quantity of consumption	Control		Experimental	
	Frequency	Percentage	Frequency	Percentage
30 ml-60 ml	5	25%	3	15%
30 ml-90 ml	4	20%	4	20%
30 ml-120 ml	9	45%	5	25%
30 ml-150 ml	2	10%	8	40%

Mode of admission	Control		Experimental	
	Frequency	Percentage	Frequency	Percentage
Voluntary	5	25%	10	50%
Involuntary	15	75%	10	50%
Miscellaneous				

Weight	Control		Experimental	
	Frequency	Percentage	Frequency	Percentage
40-50 Kg	2	10%	3	15%
51-60 Kg	10	50%	12	60%
61-70 Kg	7	35%	3	15%
71-80 Kg	1	5%	2	10%

Data presented in table shows control group and experimental group

Data presented in table shows the distribution of subjects according to gender, age, weight, physical appearance, education, type of family, occupation, marital status, duration of alcohol consumption, quantity of alcohol consumption etc.

The data reveals that in experimental group and control group 100% subjects were male.

Table shows that in experimental group 5(25%) of them were in the age group of 19-24 years, 10(50%) of them were in the age group of 25-30 years, 3(15%) of them were in age group of 31-36 years and 2(10%) were in age group of 36 and above.

In experimental group 4(20%) were in the age group of 19-24 years, 12(60%) were in the age group of 25-30 years, 2(10%) were in age group of 31-36 years and 2(10%) were in age group of 36 and above.

The data reveals that 1(5%) of them had no formal education, 8(40%) were having primary education, 5(25%) were having secondary education, 4(20%) were having higher education and 2(10%) were having graduation.

In experimental group 2(10%) were having no formal education, 5(25%) were having primary education, 10(50%) were having secondary education, 3(15%) were having higher education.

According to the physical appearance in the control group 6(30%) were excited, 10(50%) were nervous, 2(10%) were well groomed and 2(10%) were dull.

In experimental group 7(35%) were excited, 8(40%) were nervous, 3(15%) were well groomed and 2(10%) dull.

According to type of family 2(10%) were having nuclear family and 18(90%) were having extended family.

In experimental group 1(5%) were having nuclear family and 19(95%) were having extended family.

The table depicts that in control group 10(50%) of the sample were having private or government job, 4(20%) were self employed and 6(30%) were unemployed.

In the experimental group 5(25%) were having government or private job, 12(60%) were self employed and 3(15%) were unemployed.

The data shows that in control group 18(90%) were married and 2(10%) were unmarried.

In experimental group 15(75%) were married and 5(25%) were unmarried.

The data depicts that in control group 5(25%) were consuming alcohol from 6month – 1 year, 10(50%) were consuming alcohol from 1 year to 3 year, 3(15%) were consuming alcohol from 3 years-5 years and 2(10%) were consuming alcohol above 5 years.

In experimental group 2(10%) were consuming alcohol from 6 month-1 year, 5(25%) were consuming alcohol from 1 year-3 year, 10(50%) were consuming alcohol from 3 year -5 year and 3(15%) were consuming alcohol above 5 years.

The table shows in control group 5(25%) were consuming 30ml-60ml of alcohol, 4(20%) were consuming 30ml-90 ml, 9(45%) were consuming 30ml-120ml and 2(10%) were consuming 30ml-150 ml.

In experimental group 3(15%) were consuming 30ml-60 ml, 4(20%) were consuming 30ml-90ml, 5(25%) were consuming 30ml-120ml and 8(40%) were consuming 30ml-150 ml.

The data depicts in control group 5(15%) mode of admission was voluntary and 15(75%) were involuntary.

In experimental group 10(50%) mode of admission was voluntary and 10(50%) was involuntary.

The table shows that 2(10%) of the sample were having 40-50 kg weight, 10(50%) were having 51-60 kg weight, 7(35%) were having 61-70 kg weight and 1(5%) were having 71-80 kg weight.

In the experimental group 3(15%) were having 40-50 kg weight, 12(60%) were having 51-60 kg weight, 3(15%) were having 61-70 kg weight and 2(10%) were having 71-80

Figure 1: The column diagram showing the percentage and frequency distribution of alcohol withdrawal patients in experimental and control group according to their age.

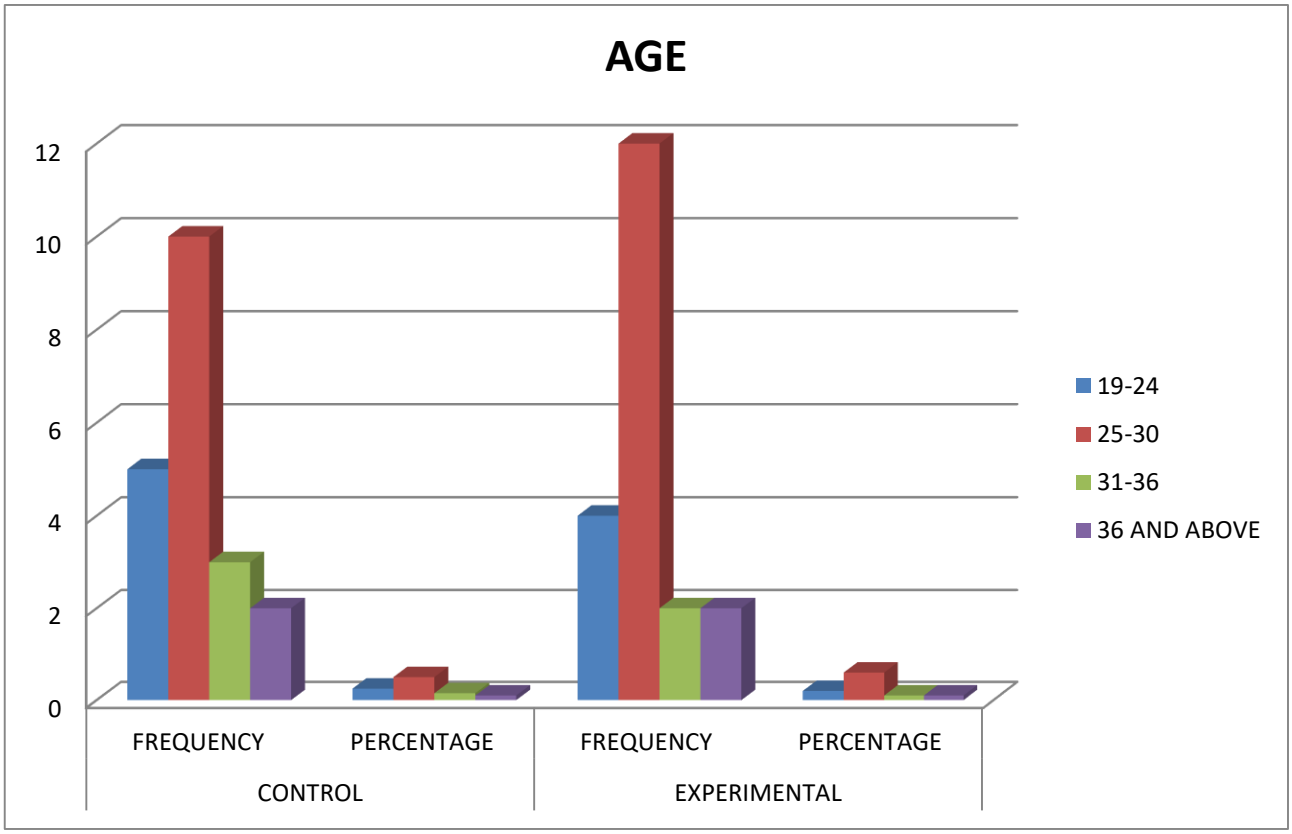


Figure 2: The column diagram showing the percentage and frequency distribution of alcohol withdrawal patients in experimental and control group according to their weight.

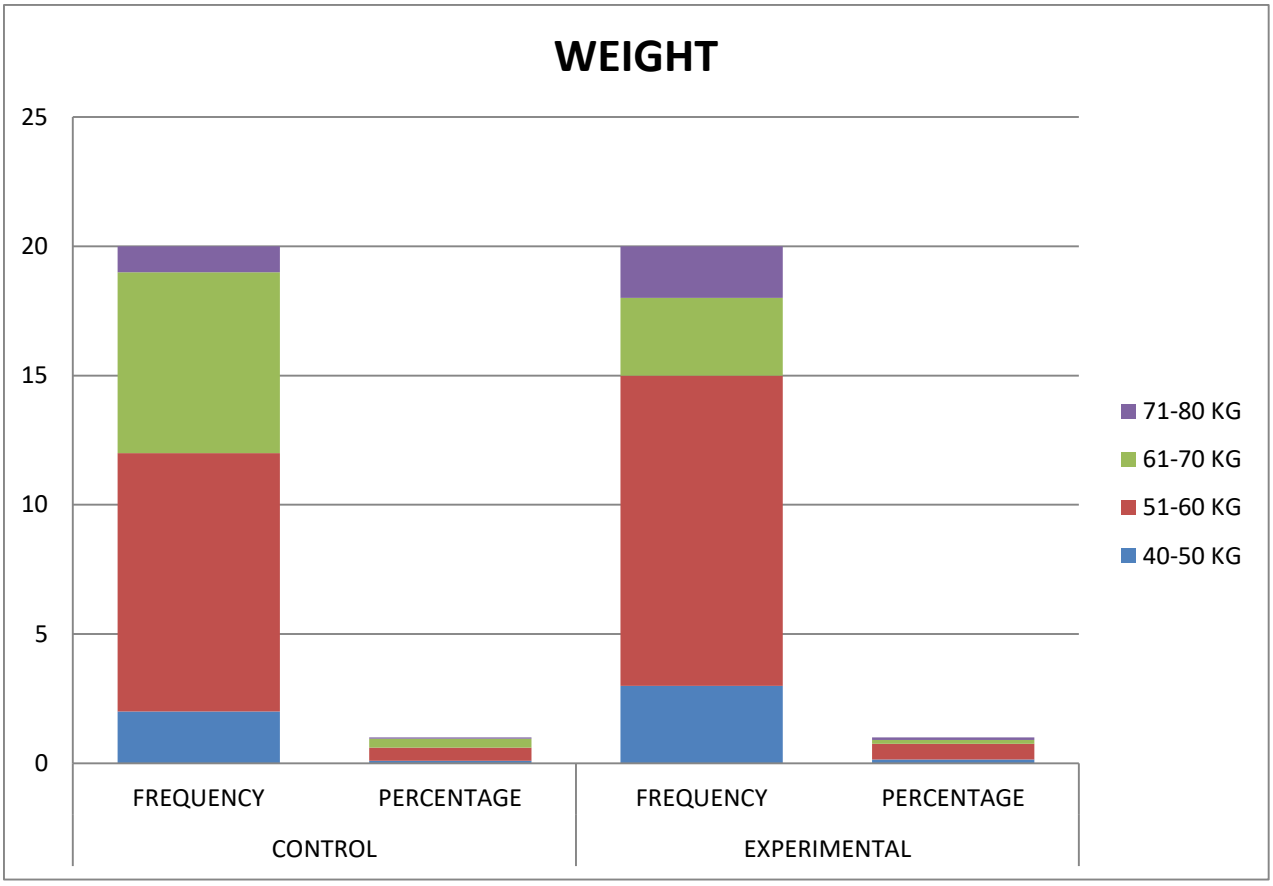


Figure 3: The column diagram showing the percentage and frequency distribution of alcohol withdrawal patients in experimental and control group according to their physical appearance.

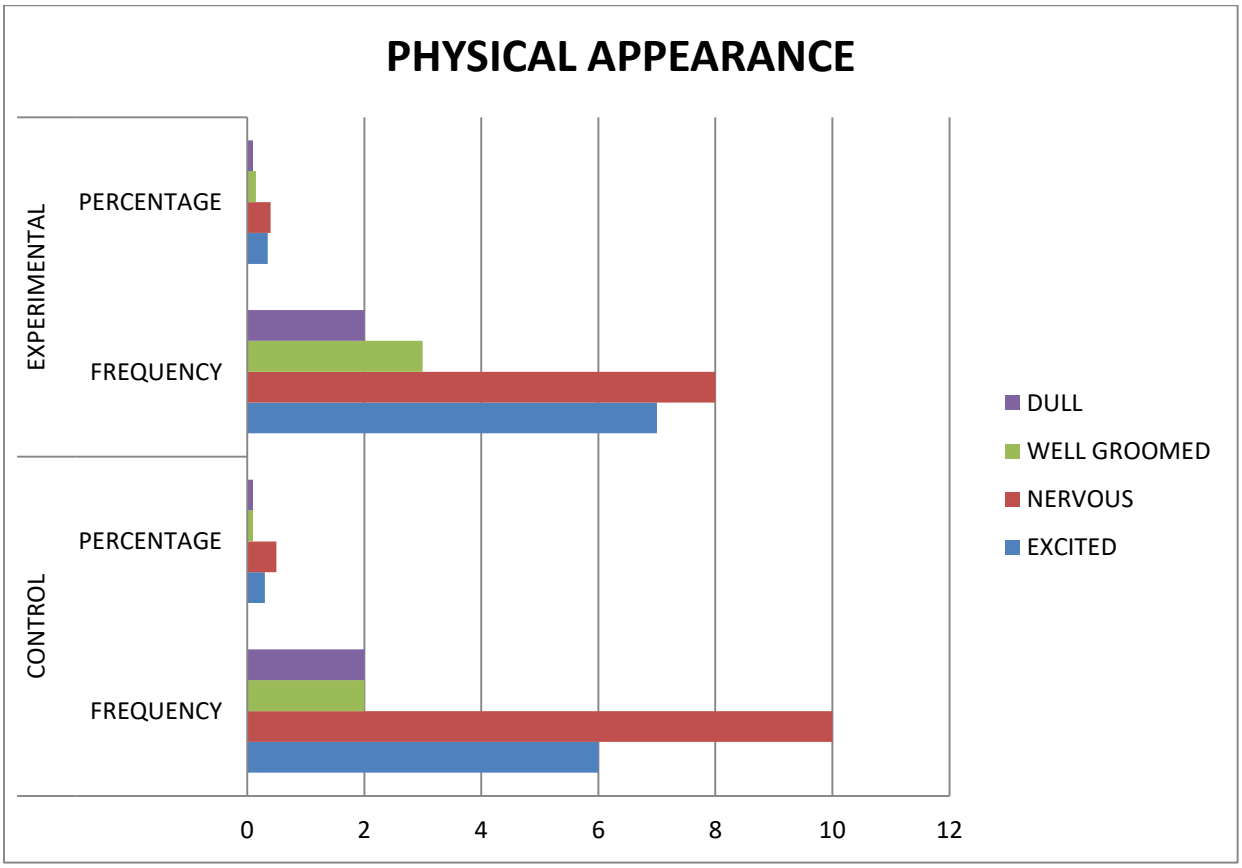


Figure 4: The pie diagram showing the percentage and frequency distribution of alcohol withdrawal patients in experimental and control group according to their education.

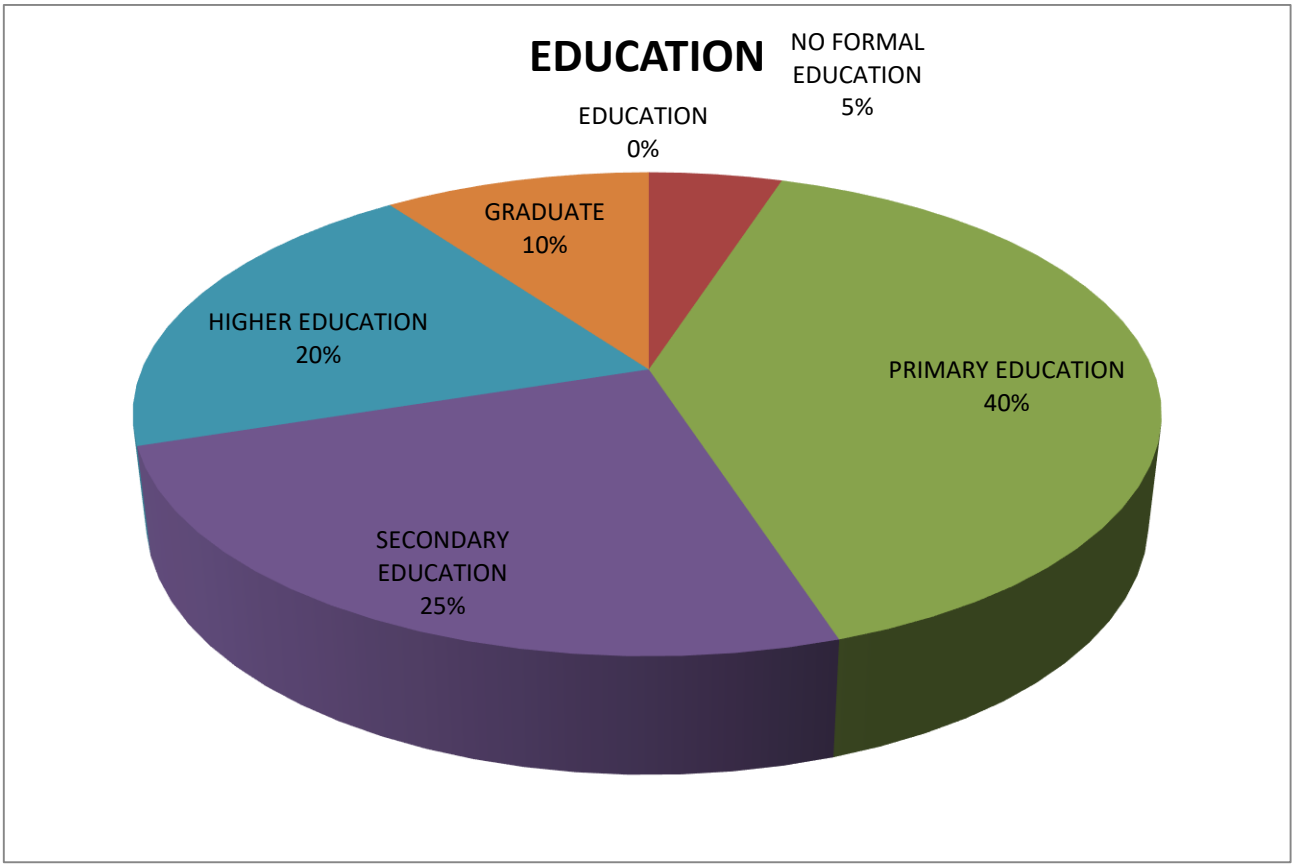


Figure 5: The column diagram showing the percentage and frequency distribution of alcohol withdrawal patients in experimental and control group according to their type of family.

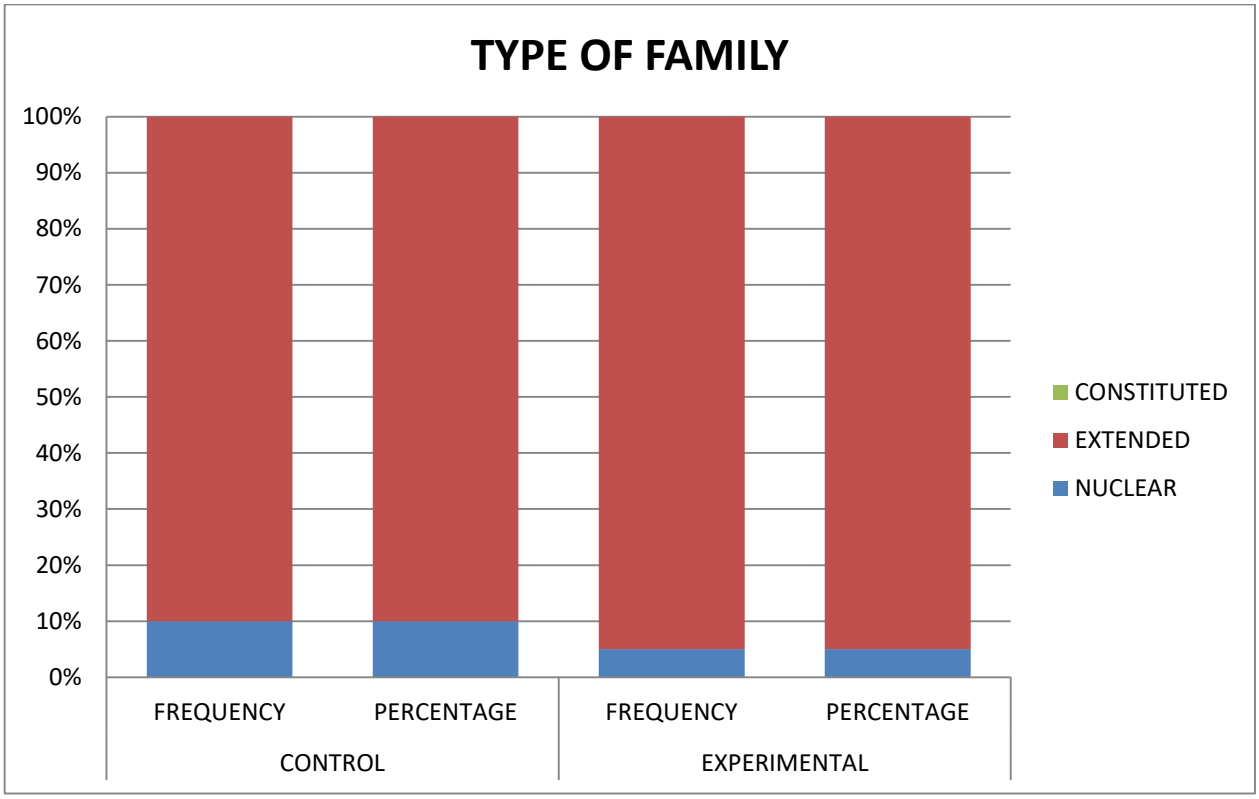


Figure 6: The column diagram showing the percentage and frequency distribution of alcohol withdrawal patients in experimental and control group according to their occupation.

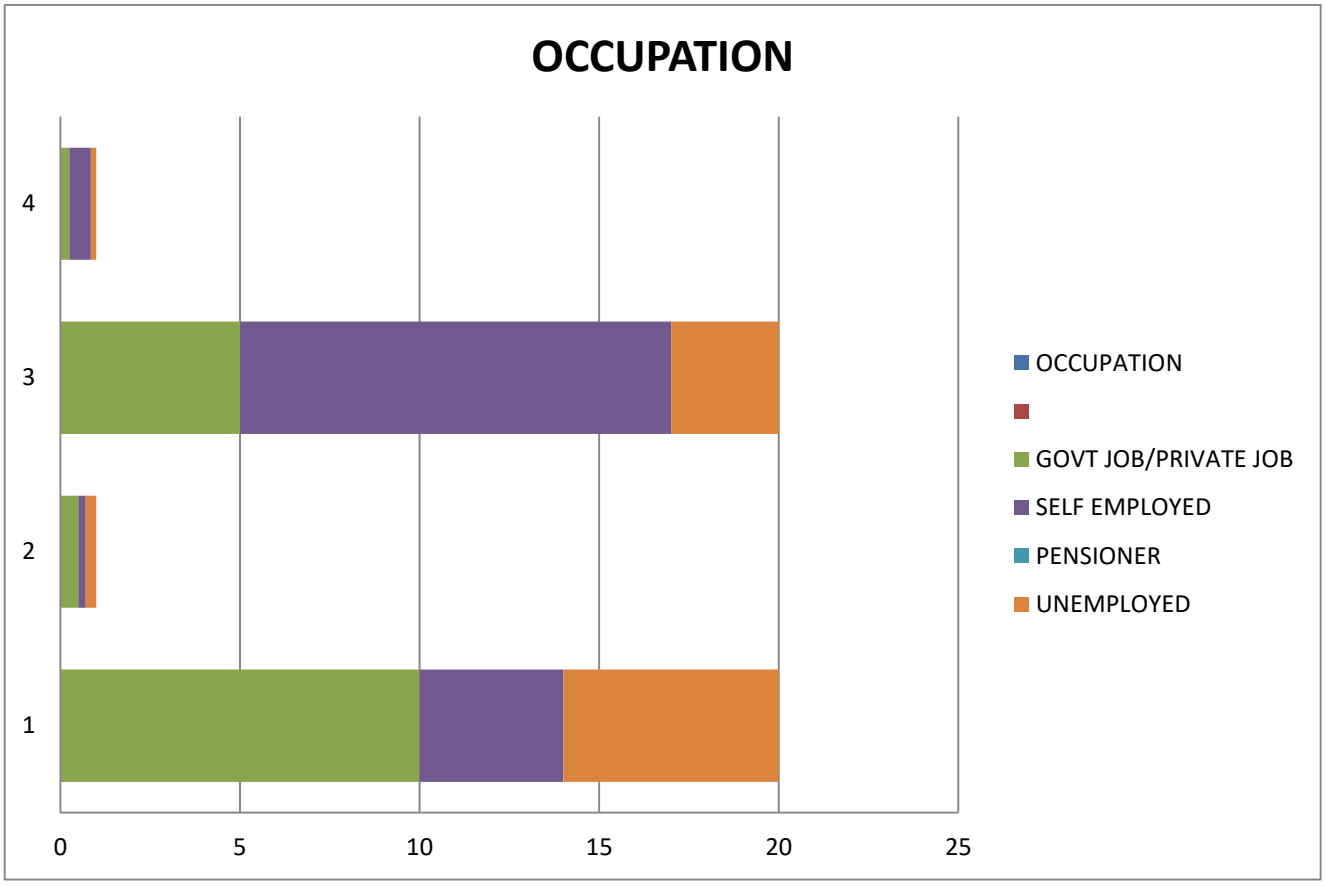


Figure 7: The column diagram showing the percentage and frequency distribution of alcohol withdrawal patients in experimental and control group according to their marital status.

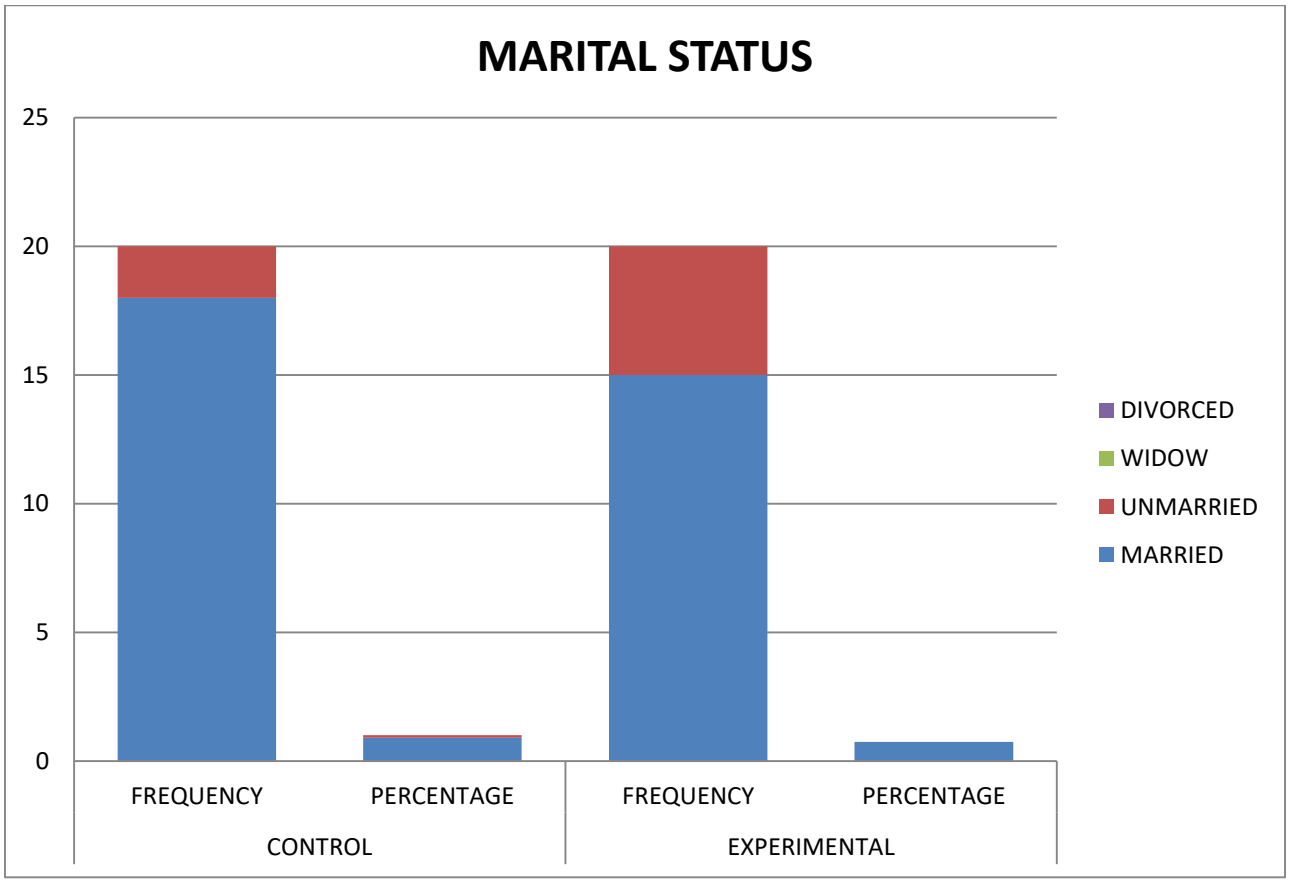


Figure 8: The column diagram showing the percentage and frequency distribution of alcohol withdrawal patients in experimental and control group according to their duration of alcohol consumption.

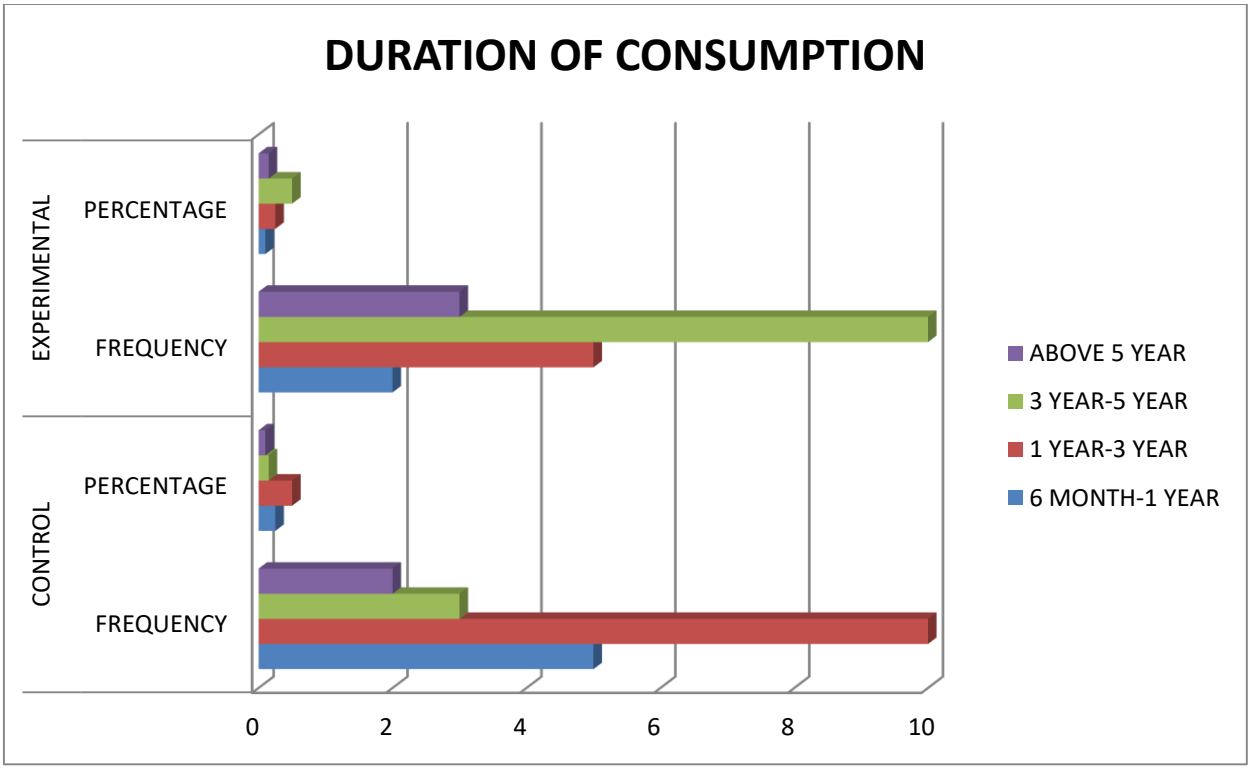


Figure 9: The column diagram showing the percentage and frequency distribution of alcohol withdrawal patients in experimental and control group according to their quantity of alcohol consumption.

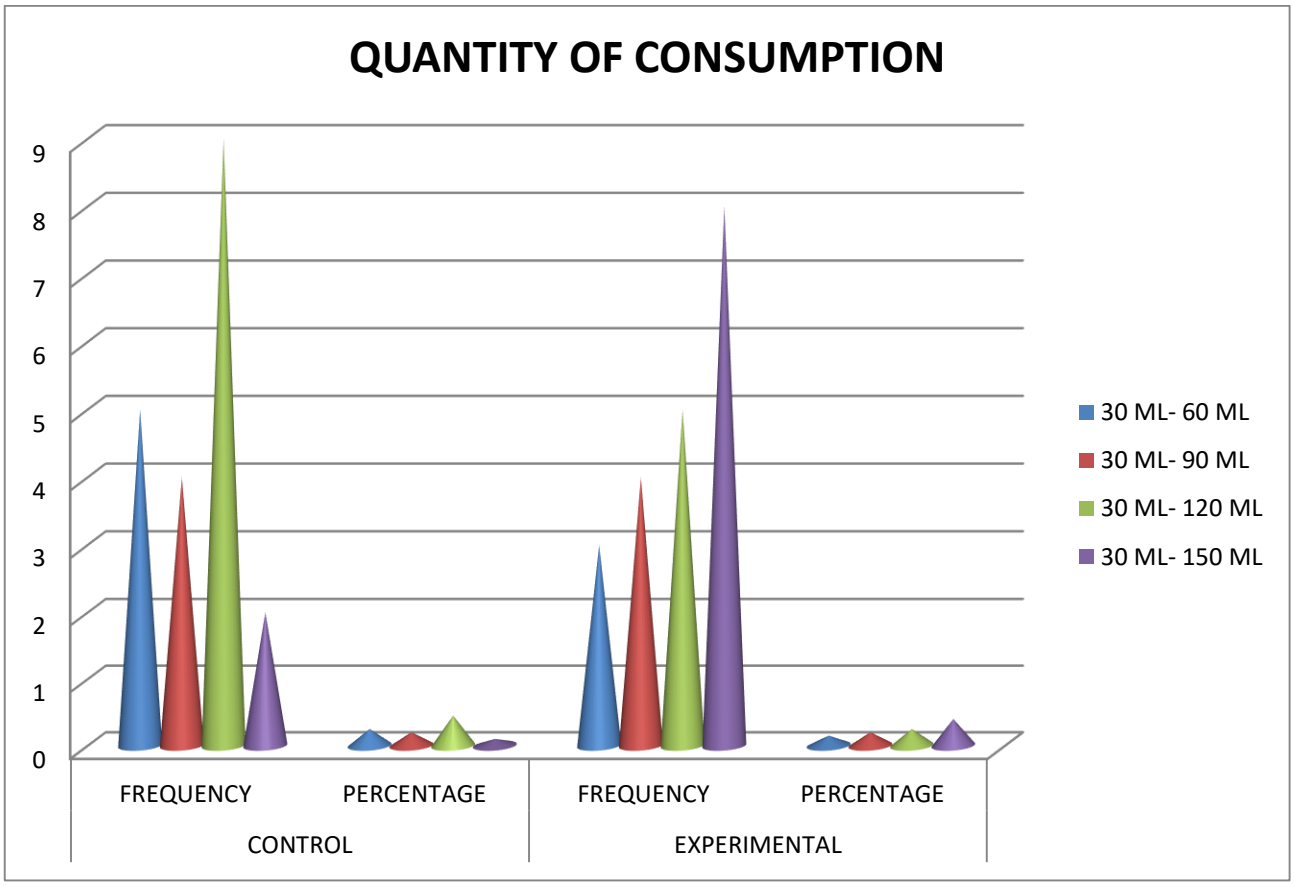
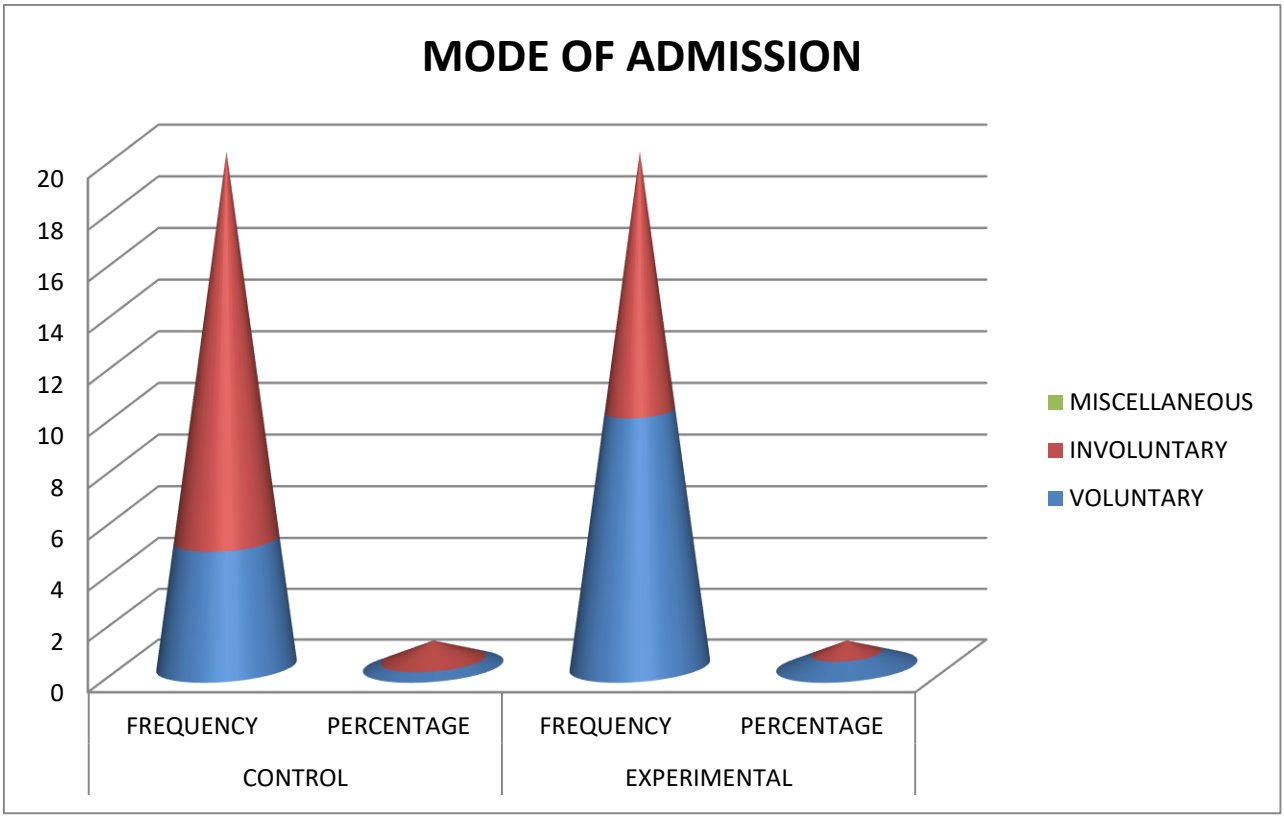


Figure 10: The column diagram showing the percentage and frequency distribution of alcohol withdrawal patients in experimental and control group according to their mode of admission.



Section-2

Table -2

2.1 Frequency and percentage distribution of pre test and post test score of the level of withdrawal among alcohol dependent patient in experimental group.

n=20

Level of alcohol withdrawal	**Pre-test**		**Post-test**	
	Frequency	**Percentage**	**Frequency**	**Percentage**
Absent	3	15%	20	100%
Medium	13	65%		
High	4	20%		

The above table depicts that in experimental group , pre-test level of alcohol withdrawal score of the sample shows that 3 of the patients had absence of withdrawal symptoms according to CIWA score, 13 of them had medium level of alcohol withdrawal. In contrast post test score shows that 20 patients had an absence of alcohol withdrawal symptoms.

Figure :-11 The above column graph showing the percentage distribution level of withdrawal symptoms among alcohol dependent patient in experimental group before and after administration of aerobic exercise.

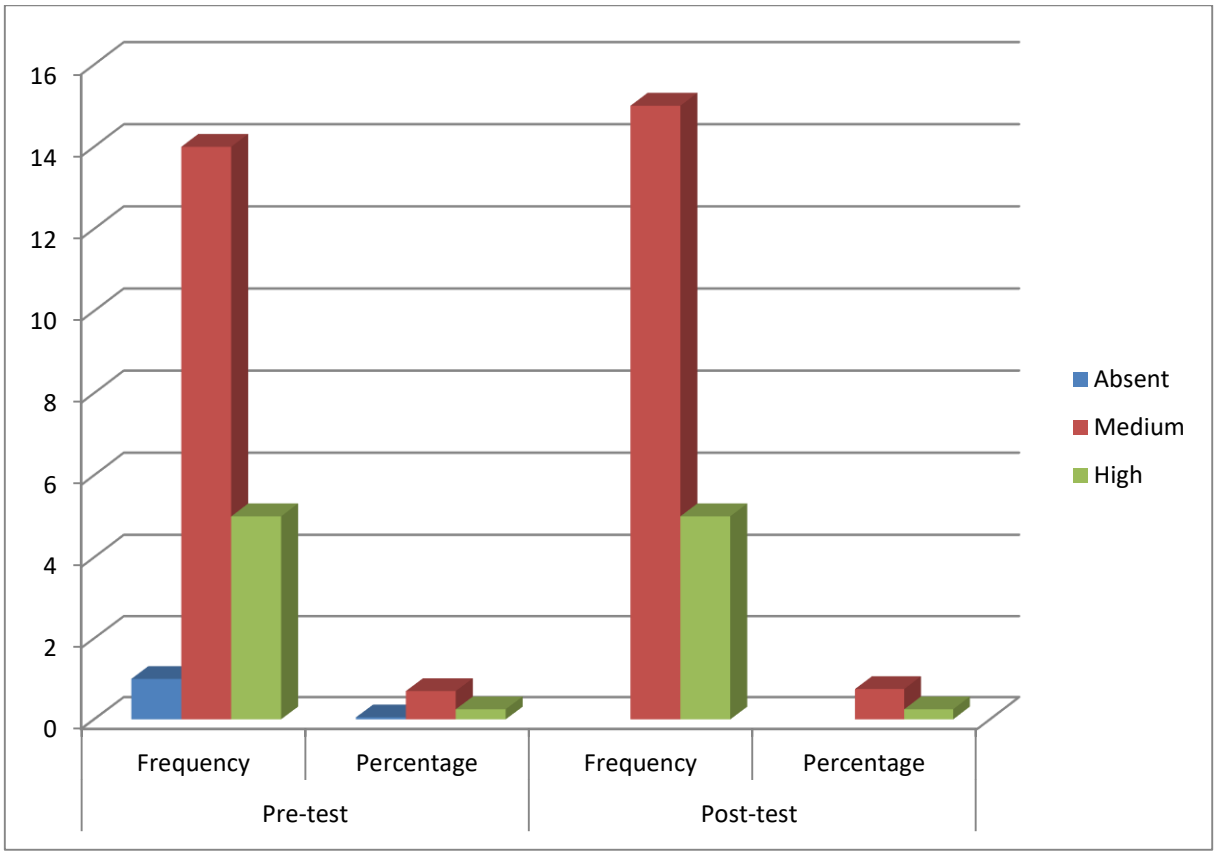


Table-3

2.2 Frequency and percentage distribution of level of withdrawal symptoms among alcohol dependent patient in control group.

n=20

level of alcohol withdrawal	Pre-test		Post-test	
	Frequency	**Percentage**	**Frequency**	**Percentage**
Absent	1	5%		
Medium	14	70%	15	75%
High	5	25%	5	25%

In control group, pre-test score of alcohol withdrawal of the sample shows that 1 patients had absent withdrawal symptoms, 14 patients have medium withdrawal symptoms and 5 patient had high withdrawal symptoms. In contrast in post test 5 patient have high level of withdrawal symptoms and 15 patient have medium level of withdrawal symptoms .

Figure :-12 The above column graph showing the percentage distribution level of withdrawal symptoms among alcohol dependent patient in control group before and after administration of aerobic exercise.

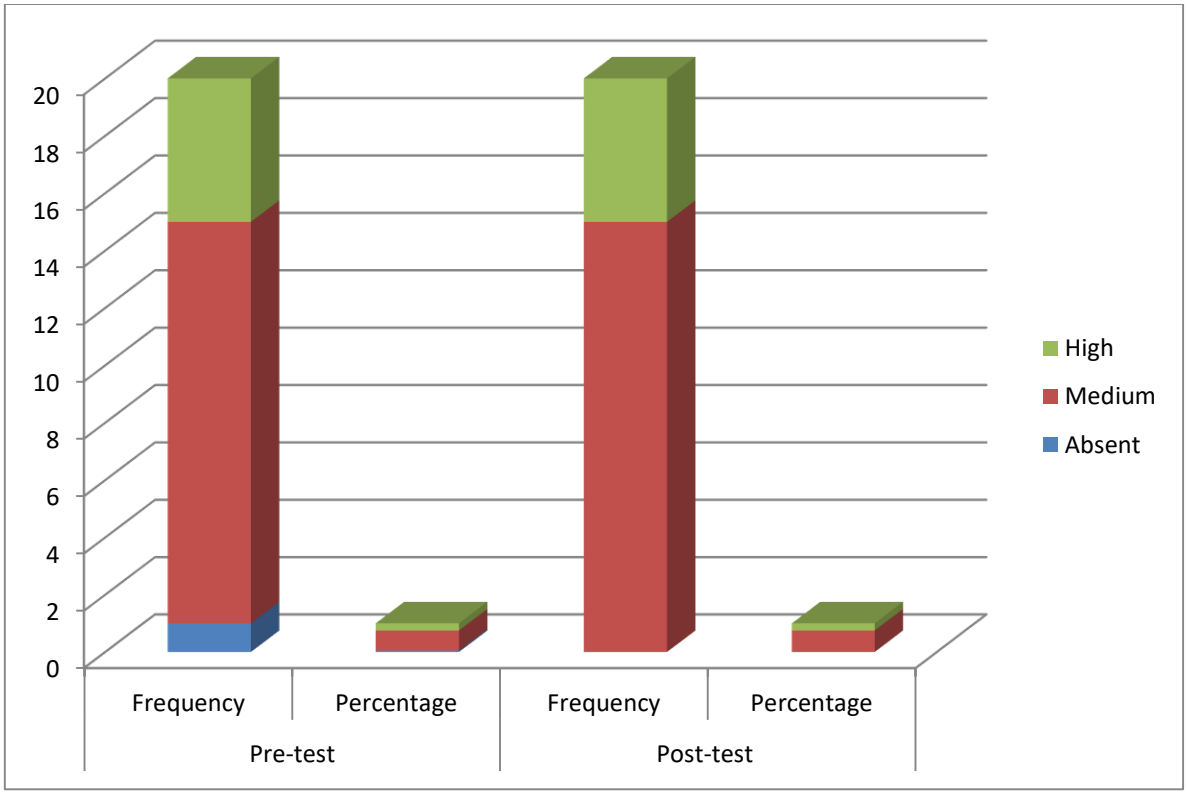


Table-4

2.3 Evaluate the effectiveness of aerobic exercise on withdrawal symptoms among alcohol dependent patient in experimental group.

n=20

	Mean	**Mean difference**	**Standard deviation**	**DF**	**Paired T test**	**Table value**	**p value**
Pre-test	6.15	3.25	5.843	19	5.285	2.093	0.000042
Post-test	2.9		3.606				

Data represented in table shows comparison of mean, pre and post test practice score regarding aerobic exercise training in experimental group. The mean post test score (2.9) was significantly lower than mean pre test score with a mean difference of 3.25. The standard deviation pre test 5.843 and post test 3.606. The obtained paired calculated t value was 5.285 which is higher than the table value 2.093 at 0.05 level of significance. It shows that the aerobic exercise has reduced the withdrawal symptoms among alcohol dependent patient.

Hence the hypothesis H1 is accepted.

Table-5

2.4 Evaluate the effectiveness on withdrawal symptoms among alcohol dependent patient in control group.

n=20

	Mean	**Mean difference**	**Standard deviation**	**DF**	**Paired T test**	**Table value**	**p value**
Pre-test	4.5	3.35	4.387	19	2.06	2.093	0.053364
Post-test	1.15		3.244				

Data represented in table shows comparison of mean pre-test and post-test score regarding aerobic exercise training in control group. The mean post test score was 1.15 which is significantly lower than the pre test score 4.5 with mean difference of 3.35. The standard deviation of pre test score was 4.387 and post test score was 3.244. The obtained paired calculated t-value 2.06 which is less than table value 2.093 at 0.05 level of significance. So there was no changes in control group.

Table-6

2.5 Compare the post test score of effectiveness of aerobic exercise on level of withdrawal symptoms among alcohol dependent patient score in experimental and control group.

n=20

	Mean		**Mean difference**	**Standard deviation**		**DF**	**Unpaired T test**	**Table value**	**P value**
	Control	**Experimental**	1.75	**Cont.**	**Exp.**	38	2.134	1.684	0.046093
Post-test	1.15	2.9		3.244	3.606				

Data represented in table shows that experimental post test mean score 2.9 was which is significantly higher than the post test mean score 1.15 of control group with the mean difference of 1.75, the SD was 3.244 in control group and 3.606 in experimental group. The obtained unpaired t test value 2.134 was significantly higher than table value 1.684 at 0.05 level of significance.

Hence hypothesis H2 was accepted. It was statistically proven that in experimental group the aerobic exercise training is highly effective to reduce the withdrawal symptoms of alcohol dependent patient.

Section-3

Table-7

3.1 TO FIND OUT THE ASSOCIATION BETWEEN PRE TEST SCORE ON LEVEL OF EFFECTIVENESS OF AEROBIC EXERCISE ON ALCOHOL DEPENDENT PATIENT AMONG EXPERIMENTAL GROUP WITH THEIR SELECTED DEMOGRAPHIC VARIABLES.

n=20

S.no	Demographic variable	Absent	Medium	High	Df	Chi square	Table value	Significant /non significant	P value
1.	Age								
	19-24 year	4	0	0	6	34.6	12.592	S	0.00001
	25-30 year	5	5	0					
	31-36 year	2	0	0					
	36 and above	5	0	0					
2.	Weight								
	40-50 kg	2	0	0	6	231	12.592	S	0.00001
	51-60 Kg	15	0	0					
	61-70 Kg	2	1	0					
	71-80 Kg	0	0	0					
3.	Physical appearance								
	Excited	12	0	0	6	9.7	12.592	NS	0.137868
	Nervous	1	0	0					
	Well groomed	5	0	0					
	Dull	2	0	0					
4.	Education								
	No formal education	2	0	0	8	16.3	15.507	S	0.00001
	Primary education	5	0	0					
	Secondary education	10	0	0					
	Higher education	3	0	0					
	Graduate								
5.	Type of family								

	Nuclear	1	0	0	4	19	9.488	**S**	0.00001
	Extended	19	0	0					
6.	**Occupation**								
	Govt/Private	5	0	0	6	39	12.592	**S**	0.00001
	Self emlpoyed	12	0	0					
	Pensioner	0	0	0					
	Unemployed	3	0	0					
7.	**Marital status**								
	Married	15	0	0	6	5	12.592	**NS**	0.00001
	Unmarried	4	0	0					
	Widow								
	Divorced								
8.	**Duration of consumption**								
	6 month- 1 year	2	0	0	6	15	12.592	**S**	0.00001
	1 year- 3 year	5	0	0					
	3 year- 5 year	10	0	0					
	5 year and above	3	0	0					
9.	**Quantity of consumption**								
	30 ml-60 ml	3	0	0	6	11	12.592	**NS**	0.00001
	30 ml-90 ml	4	0	0					
	30 ml-120 ml	5	0	0					
	30 ml-150 ml	8	0	0					
10.	**Mode of admission**								
	Voluntary	10	0	0	4	10	9.488	**NS**	0.00001
	Involuntary	10	0	0					
	Miscellaneous								

At 0.05 level of significance

There is significant association between pre test score with the selected demographic variable (age, weight, educational qualification, type of family, duration of consumption) at 0.05 level of significance.

Therefore H3 hypothesis was accepted.

Section-3

Table-8

3.1 TO FIND OUT ASSOCIATION BETWEEN POST TEST SCORE ON LEVEL OF EFFECTIVENESS OF AEROBIC EXERCISE ON ALCOHOL DEPENDENT PATIENT AMONG EXPERIMENTAL AND CONTROL GROUP WITH THEIR SELECTED DEMOGRAPHIC VARIABLES.

n=20

S.no	Demographic variable	Absent	Medium	High	Df	Chi square	Table value	Significant /non significant	P value
1.	Age								
	19-24 year	4	0	0	6	63.2	12.592	S	0.00001
	25-30 year	12	0	0					
	31-36 year	2	0	0					
	36 and above	2	0	0					
2.	Weight								
	40-50 kg	2	0	0	6	65	12.592	S	0.00001
	51-60 Kg	10	0	0					
	61-70 Kg	7	0	0					
	71-80 Kg	1	0	0					
4.	Physical appearance								
	Excited	6	0	0	6	29	12.592	S	0.00001
	Nervous	10	0	0					
	Well groomed	2	0	0					
	Dull	2	0	0					
5.	Education								
	No formal education	2	0	0	8	16.3	15.507	S	0.00001
	Primary education	5	0	0					

	Secondary education	10	0	0					
	Higher education	3	0	0					
	Graduate								
6.	**Type of family**								
	Nuclear	1	0	0	4	19	9.488	**S**	0.00001
	Extended	19	0	0					
7.	**Occupation**								
	Govt/Private	5	0	0	6	39	12.592	**S**	0.00001
	Self emlpoyed	12	0	0					
	Pensioner	0	0	0					
	Unemployed	3	0	0					
8.	**Marital status**								
	Married	15	0	0	6	5	12.592	**NS**	0.00001
	Unmarried	4	0	0					
	Widow	0	0	0					
	Divorced	0	0	0					
9.	**Duration of consumption**								
	6 month- 1 year	2	0	0	6	15	12.592	**S**	0.00001
	1 year- 3 year	5	0	0					
	3 year- 5 year	10	0	0					
	5 year and above	3	0	0					
10.	**Quantity of consumption**								
	30 ml-60 ml	3	0	0	6	11	12.592	**NS**	0.00001
	30 ml-90 ml	4	0	0					
	30 ml-120 ml	5	0	0					
	30 ml-150 ml	8	0	0					
11.	**Mode of admission**								

	Voluntary	10	0	0	4	10	9.488	**NS**	0.00001
	Involuntary	10	0	0					
	Miscellaneous	0	0	0					

At 0.05 level of significance

There is significant association between post test score with the selected demographic variable (age, weight, educational qualification, type of family, duration of consumption) at 0.05 level of significance.

Therefore H3 hypothesis was accepted.

SUMMARY

This chapter deals with analysis and interpretation of data collection from alcohol withdrawal patients (20 in experimental group and 20 in control group) in selected de-addiction center of Meerut. Both descriptive and inferential statistics were used to analyze the data. In the study it was found that aerobic exercise training was effective to decrease alcohol withdrawal symptoms. Hence all the objectives were obtained and hypothesis was accepted.

CHAPTER-V

RESULT AND DISCUSSION

The discussion chapter deals with sample characteristics in the present study. The data was obtained from alcohol dependent patient with withdrawal symptoms admitted in Sanskriti Foundation at Meerut. To achieve the objectives of the study a Quasi experimental pre-test post-test group design was adopted and 40 alcohol dependent patient were selected as the study samples

STATEMENT OF PROBLEM

A quasi experimental study to evaluate the effectiveness of aerobic exercise on withdrawal symptoms among alcohol dependents in selected de-addiction centres Meerut.

OBJECTIVES OF STUDY

- To assess the level of withdrawal symptoms among alcohol dependent in control group and experimental group.
- To evaluate the effectiveness of aerobic exercise on withdrawal symptoms among alcohol dependent patient in experimental group.
- To compare the post test score of effectiveness of aerobic exercise on withdrawal symptoms among alcohol dependent patient in experimental group and control group.
- To find out association between the pre-test and post test score on level of withdrawal symptoms among alcohol dependent in experimental group with their selected demographic variable.

HYPOTHESIS

- H1- There will be significant difference in the withdrawal symptoms among alcohol dependent before and after administration of aerobic exercise at 0.05 level of significance as evidenced by CIWA scale.
- H2- There will be significant difference in comparison of mean post test score of aerobic exercise among alcohol dependent patient in experimental and control group at 0.05 level of significance.
- H3- There will be significant association between the pre test and post test level of aerobic exercise among alcohol dependent and selected demographic variable at 0.05 level of significance.

MAJOR FINDINGS OF THE STUDY

The data was collected, analyzed and interpreted in terms of objectives. Descriptive and inferential statistics were utilized for analysis of the data. The level of significance set for testing the hypothesis was 0.05.

Findings related to demographic variable of the alcohol dependent patient among the experimental and control group

- The data reveals that in experimental group and control group 100% subjects were male.
- Table shows that in experimental group 5(25%) of them were in the age group of 19-24 years, 10(50%) of them were in the age group of 25-30 years, 3(15%) of them were in age group of 31-36 years and 2(10%) were in age group of 36 and above.
- In experimental group 4(20%) were in the age group of 19-24 years, 12(60%) were in the age group of 25-30 years, 2(10%) were in age group of 31-36 years and 2(10%) were in age group of 36 and above.
- The data reveals that 1(5%) of them had no formal education, 8(40%) were having primary education, 5(25%) were having secondary education, 4(20%) were having higher education and 2(10%) were having graduation.
- In experimental group 2(10%) were having no formal education, 5(25%) were having primary education, 10(50%) were having secondary education, 3(15%) were having higher education.
- According to the physical appearance in the control group 6(30%) were excited, 10(50%) were nervous, 2(10%) were well groomed and 2(10%) were dull.
- In experimental group 7(35%) were excited, 8(40%) were nervous, 3(15%) were well groomed and 2(10%) dull.
- According to type of family 2(10%) were having nuclear family and 18(90%) were having extended family.
- In experimental group 1(5%) were having nuclear family and 19(95%) were having extended family.
- The table depicts that in control group 10(50%) of the sample were having private or government job, 4(20%) were self employed and 6(30%) were unemployed.
- In the experimental group 5(25%) were having government or private job, 12(60%) were self employed and 3(15%) were unemployed.

- The data shows that in control group 18(90%) were married and 2(10%) were unmarried.
- In experimental group 15(75%) were married and 5(25%) were unmarried.
- The data depicts that in control group 5(25%) were consuming alcohol from 6month – 1 year, 10(50%) were consuming alcohol from 1 year to 3 year, 3(15%) were consuming alcohol from 3 years-5 years and 2(10%) were consuming alcohol above 5 years.
- In experimental group 2(10%) were consuming alcohol from 6 month-1 year, 5(25%) were consuming alcohol from 1 year-3 year, 10(50%) were consuming alcohol from 3 year -5 year and 3(15%) were consuming alcohol above 5 years.
- The table shows in control group 5(25%) were consuming 30ml-60ml of alcohol, 4(20%) were consuming 30ml-90 ml, 9(45%) were consuming 30ml-120ml and 2(10%) were consuming 30ml-150 ml.
- In experimental group 3(15%) were consuming 30ml-60 ml, 4(20%) were consuming 30ml-90ml, 5(25%) were consuming 30ml-120ml and 8(40%) were consuming 30ml-150 ml.
- The data depicts in control group 5(15%) mode of admission was voluntary and 15(75%) were involuntary.
- In experimental group 10(50%) mode of admission was voluntary and 10(50%) was involuntary.
- The table shows that 2(10%) of the sample were having 40-50 kg weight, 10(50%) were having 51-60 kg weight, 7(35%) were having 61-70 kg weight and 1(5%) were having 71-80 kg weight.
- In the experimental group 3(15%) were having 40-50 kg weight, 12(60%) were having 51-60 kg weight, 3(15%) were having 61-70 kg weight and 2(10%) were having 71-80 kg weight.

Findings related to the assessment of level of alcohol withdrawal among alcohol dependent patient using standard CIWA-Ar Scale

- In experimental group, pre-test knowledge score of the sample shows that 3 of the patients had absence of withdrawal symptoms according to CIWA score, 13 of them had medium level of alcohol withdrawal. In contrast post test score shows that 20 patients had an absence of alcohol withdrawal symptoms.
- In control group, pre test knowledge score of the sample shows that 1 patients had absent withdrawal symptoms, 14 patients have medium withdrawal symptoms and 5 patient had high withdrawal symptoms. In contrast in post test 5 patient have high level of withdrawal symptoms and 15 patient have medium level of withdrawal symptoms .

Findings related to pre test and post test score of alcohol withdrawal symptoms among alcohol dependent patient in the experimental group

Experimental group:

- It shows the comparison of the mean pre-test and post-test knowledge score regarding level of alcohol withdrawal in experimental group. The mean post test score (2.9) was significantly lower than mean pre-test score (6.15) with the mean difference of 3.25. The standard deviation pre-test (5.843) and post test (3.606). The obtained paired calculated t value was 5.285 which was higher than tabulated value 2.093 at 0.05 level of significance.
- Thus decrease in mean post test score explains that the aerobic exercise is effective in decreasing the withdrawal symptoms of the alcohol dependent patient in experimental group.

Control group:

- It shows the comparison of mean pre-test and post-test knowledge score regarding level of withdrawal symptoms in control group. The mean post test score (1.15) is significantly lower than mean pre test score (4.5) with mean difference of 3.35. The standard deviation pre test (4.387) and post test (3.244). The obtained paired calculated t value was 2.06 which is higher than the table value 2.093 at 0.05 level of significance.

Findings to have comparison between pre test and post test score of the withdrawal symptoms among alcohol dependent in experimental and control group

- In the experimental post test mean score 2.9 is significantly higher than the post test mean score 1.15 of the control group with the mean difference of 1.75, the SD was 3.606 in experimental group and 3.244 in control group. The obtained unpaired t test value was significantly higher i.e2.134 than the tabulated value which was 1.684 at df 38 at 0.05 level of significance.

Findings related to the association of pre test and post test scores of alcohol withdrawal symptoms among alcohol dependent patient in experimental group with their selected demographic variable

- There is significant association between post test score regarding withdrawal symptoms among alcohol dependent patient.
- There was significant association between post test score with the selected demographic variables (age, weight, educational qualification, type of family, duration of consumption etc.) at 0.05 level of significance.

DISCUSSION

The findings of this study had been discussed in terms of objectives, hypothesis and results obtained by researcher in the same aspect.

- Based on the objectives of the study and findings revealed that discussion can be framed as follows:

Objective 1: To assess the level of withdrawal symptoms among alcohol dependent in control group and experimental group.

- In experimental group, pre-test knowledge score of the sample shows that majority 13 of the sample have no withdrawal symptoms, 7 of the sample have medium level of withdrawal syndrome. In contrast post test score shows that 0 sample have withdrawal syndrome.
- In control group, pre test knowledge score of the sample shows that majority of the sample 18 have no withdrawal symptoms, 2 of the sample have medium level of alcohol withdrawal symptoms. In contrast post test score shows that majority 19 have no withdrawal symptoms, 1 have medium level of withdrawal symptoms.
- In the study conducted by **Dini Davis et.al. (2019)** Alcoholism and alcohol withdrawal symptoms are increasing day by day. Problems related to withdrawal symptoms may or may not be pathological. Aerobic exercise can promote relaxation and improve cardiac activity there by improve the health benefits of alcoholic dependents. To assess the effectiveness of aerobic exercise on selected alcohol withdrawal symptoms of alcoholic dependents. The research design used in this study was PretestPost test control group design. Total 40 AWS patients randomly selected (20 experimental, 20 control group) by purposive sampling. The tools used were CIWA (clinical institute withdrawal assessment) scale and baseline performa. Aerobic exercise was administered for 20 minutes daily; post test was conducted on the 5th day for both groups. There was significant decrease in AWS (alcohol withdrawal symptoms) of alcohol dependents before and after aerobic exercise program. The computed t(19)=11.9, p=0.001 was greater than table value which shows a significant difference in pre and post interventional level of AWS in experimental group. Computed value (t(38) =3.87), p =0.001 was higher than table value, indicated a difference in the CIWA score between experimental and control group. Interpretation and Conclusion: The study concluded that there was significant reduction in AWS after the aerobic exercise programme.

Objective 2:To evaluate the effectiveness of aerobic exercise on withdrawal symptoms among alcohol dependent patient in experimental group.

- It shows the comparison of the mean pre-test and post-test knowledge score regarding level of alcohol withdrawal in experimental group. The mean post test score (2.9) was significantly lower than mean pre-test knowledge (6.15) with the mean difference of 3.25. The standard deviation pre-test (5.843) and post test (3.606). The obtained paired calculated t value was 5.285 which was higher than tabulated value 2.093 at df 19 at significance level of 0.05.

- Thus decrease in mean post test score explains that the aerobic exercise is effective in decreasing the withdrawal symptoms of the alcohol dependent patient in experimental group.
- It shows the comparison of mean pre-test and post-test score regarding level of withdrawal symptoms in control group. The mean post test score (1.15) is significantly lower than mean pre test score (4.5) with mean difference of 3.35. The standard deviation pre test (4.387) and post test (3.244). The obtained paired calculated t value was 2.06 which is higher than the table value 2.093 at significance level of 0.05.

- In the study conducted by **Indian Journal of Public Health Research & Development et al** (2019). This was an experimental study design with comparative pre and post study type. The outcome measure used was a questionnaire CIWA-Ar. After getting the consent, the 40 samples were equally divided and allocated into two groups–group A and group B. Group A received exercise in the form of relaxation exercise, breathing exercise, balance exercise (eg. Frenkel coordination) and low intensity high repetition endurance training along with medications. Group B received medications alone prescribed by consent registered medical practitioners in their rehabilitation centre. The intervention was carried out for 45 days. Hence Null hypothesis is rejected. On comparing the post mean of Group A and Group B, Group A showed much reduction in the signs and symptoms of AWS than Group B. aerobic Exercise shows greater improvement among the individuals with alcohol withdrawal syndrome.

Objective 3: To compare the post test score of effectiveness of aerobic exercise on withdrawal symptoms among alcohol dependent patient in experimental group and control group.

- In the experimental post test mean score 2.9 is significantly higher than the post test mean score 1.15 of the control group with the mean difference of 1.75, the SD was 3.606 in experimental group and 3.244 in control group. The obtained unpaired t test value was significantly higher i.e2.134 than the tabulated value which was 1.684 at df 38 at significance level of 0.05.

- **The related evidence for the study are mentioned below Colling wood (2017)** conducted the study on aerobics exercise regimen on withdrawal symptoms among alcohol dependent patient in substance abuse treatment center of USA for eight weeks. Inference drawn was there is decrease in the withdrawal symptoms. The result shows that aerobic exercise reduces withdrawal symptoms along with emotions such as anxiety, anger, depression and confusion.

Objective 4: To find out association between the post test score on level of withdrawal symptoms among alcohol dependent in experimental group with their selected demographic variable.

- There is significant association between post test score regarding withdrawal symptoms among alcohol dependent patient.
- There was significant association between post test score with the selected demographic variables (age, gender, weight, educational qualification, type of family, duration of consumption etc.) at 0.05 level of significance.
- In the research conducted by **Lawanya (2014)** to find out association between pre-test level of anxiety with selected demographic variables in withdrawal symptoms among alcohol dependent patient. The statistics shows that demographic variable age, level of education, marital status, occupation, duration of alcohol consumption, duration of hospital stay, quantity of alcohol consumption are associated at 0.05 level of significance. Research hypothesis was accepted.

CONCLUSION

The result shows that the aerobic exercise training is effective and significant to decrease the withdrawal symptoms of the alcohol dependent patient. Aerobic exercise can help in improving the psychological and physiological status of the patient.

Hence the post test level of alcohol withdrawal symptoms of the experimental group is lower than the control group. So all the hypothesis was accepted and objectives were obtained.

CHAPTER: VI

SUMMARY, CONCLUSION, IMPLICATION, LIMITATION AND RECOMMENDATION

This chapter deals with the summary of the study, its major findings, conclusions, implication and recommendations and limitation. The implications for nursing practice, nursing education and nursing administration, mental health nursing, nursing research have been stated and limitation of the study have been enumerated.

STATEMENT OF PROBLEM

A quasi experimental study to evaluate the effectiveness of aerobic exercise on withdrawal symptoms among alcohol dependents in selected de-addiction centres Meerut.

SUMMARY OF THE STUDY

The present study was conducted to assess the effectiveness of aerobic exercise on withdrawal symptoms among alcohol dependent patient in selected de-addiction center.

OBJECTIVES OF STUDY

- To assess the level of withdrawal symptoms among alcohol dependent in control group and experimental group.
- To evaluate the effectiveness of aerobic exercise on withdrawal symptoms among alcohol dependent patient in experimental group.
- To compare the post test score of effectiveness of aerobic exercise on withdrawal symptoms among alcohol dependent patient in experimental group and control group.
- To find out association between the pre test and post test score on level of withdrawal symptoms among alcohol dependent in experimental group with their selected demographic variable.

HYPOTHESIS

- H1- There will be significant difference in the withdrawal symptoms among alcohol dependent before and after administration of aerobic exercise at 0.05 level of significance as evidenced by CIWA scale.
- H2- There will be significant difference in comparison of mean post test score of aerobic exercise among alcohol dependent patient in experimental and control group at 0.05 level of significance.
- H3- There will be significant association between the pre-test and post test level of aerobic exercise among alcohol dependent and selected demographic variable at 0.05 level of significance.

SECTION A

- Demographic variables such as age, qualifications, weight, physical appearance, type of family, occupation, duration of alcohol consumption and quantity of alcohol consumption.

SECTION B

Standardized tool (CIWA-Ar Scale) to assess level of alcohol withdrawal among alcohol dependent patient.

When an instrument is valid it truly reflect concept, it is supposed to measure. Content validity of tool was established by giving the tool to 7 expert for validation, validity of tools were obtained from 5 Mental health nursing professors and 1 psychiatric and 1 clinical psychologist. 90% of the tools were accepted by the experts, the investigators had made necessary modification in the tool under the guidance of the guide.

The pilot study was conducted from 3-2-2022 to 10-2-2022 among the alcohol dependent patient in Sanskriti Foundation. For the study 10 alcohol dependent patient were selected purposively and data was analyzed.

After obtaining the permission the main study data collection was done the investigator from 25-4-2022 to 23-5-2022 for a period of 4 weeks. The study was conducted in Sanskriti Foundation Meerut. For the study, 40 alcohol dependent patient (20 in experimental and 20 control groups) were selected purposively.

Analysis and interpretation of the data were based on the objectives of the study and the hypothesis was tested. Both descriptive and inferential statistics were used.

NURSING IMPLICATION

- The findings of the study reveals that there is a need to understand that alcohol dependent patient requires continuous administration of aerobic exercise to reduce the alcohol withdrawal symptoms among alcohol dependent patient.
- The findings of the study reveals that continuous aerobic exercise training can help the alcohol dependent patient in improving their psychological and physiological condition.

NURSING EDUCATION

- The future of the nursing profession requires qualified nurses to meet the challenges and deliver the health care. As a nursing educator nurse plays a major role in educating the patients.
- Mental health awareness program can be organized to educate the patients about positive effect of aerobic exercise in lifestyle modification and effectiveness in reducing withdrawal symptoms among withdrawal symptoms.
- The nurse researcher can update their knowledge regarding aerobic exercise and related practice in decreasing withdrawal symptoms and improving psychological and physiological status of alcohol dependent patient.

NURSING RESARCH

- Nursing research is an essential aspect of the nursing norms and a body of knowledge. There is a need to conduct further research regarding importance of aerobic exercise and its positive effect on the psychological and physiological symptoms among alcohol dependent patient.
- The findings of the study can be used to further justify the needs for education of the patients to improve their knowledge and help in managing their health issues.

LIMITATIONS

- This study was conducted on small number of alcohol dependent patient. (20 control group and 20 experimental group) this limits the generalization of the findings.
- The study sample was using a non-probability purposive sampling technique which limits the generalization of the findings.
- Lack of awareness regarding aerobic exercise cause unwillingness of the participant to continue throughout the research study.

PROBLEM FACED DURING RESEARCH STUDY

- During data collection the researcher faced problems in gathering patients for the intervention.
- It was difficult to maintain social distancing during delivering the intervention as some patients were not co-operative.

RECOMMENDATION

- This study can be replicated in large samples so that findings can be generalized for a large population.
- A comparative study can be done to see the difference in the effect of aerobic exercise on withdrawal symptoms among alcohol dependent patient among different de-addiction center.
- A follow up study can be done to assess the knowledge about aerobic exercise training and its effect on physiological and psychological condition of the alcohol dependent patient.
- A study can be conducted to identify the educational needs of the patient regarding health issue and positive effect on mental health.
- Similar kinds of studies can be conducted by using other research strategies.

CONCLUSION

The above findings of the study concludes: The aerobic exercise could reduce the level of alcohol withdrawal symptoms among alcohol dependent patients. The findings suggest that aerobic exercise can help to reduce the alcohol withdrawal symptom and regular aerobic exercise can help in reducing psychological and physiological symptoms of the alcohol dependent patient.

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PANNA DHAI MAA SUBHARTI NURSING COLLEGE

EFFECTIVENESS OF AEROBIC EXERCISE ADMINISTRATION

ON

ALCOHOL WITHRAWAL SYMPTOMS AMONG ALCOHOL DEPENDENT PATIENT

SUBMITTED TO:
SUBMITTED BY:

MR. ARUN R.
AMRITANSHU

ASSOCIATE PROFESSOR
M.SC FINAL YEAR

MHN. PDMSNC.
MHN. PDMSNC

OBJECTIVES

GENERAL OBJECTIVES:- At the end of the aerobic exercise administration the withdrawal symptoms of alcohol dependent patient will decrease.

SPECIFICALLY OBJECTIVES:

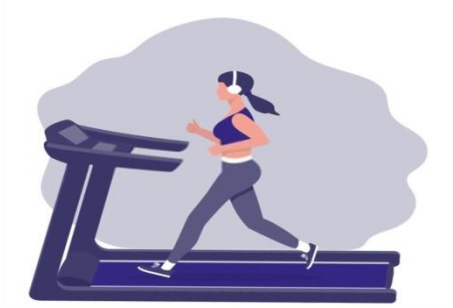
- To introduce the topic
- To define aerobic exercise, alcohol withdrawal symptoms and alcohol dependence
- To enumerate signs and symptoms of alcohol withdrawal
- To enlist advantages of aerobic exercise
- To list down different types of aerobic exercise

- To summarize the topic
- To conclude the topic

S.NO	OBJECTIVE	CONTENT	AV AID	TIME DURATION	EVALUATION
1.	Introduction	Brisk exercise that promotes the circulation of oxygen through the blood and is associated with an increased rate of breathing. If a person has been drinking alcohol for a long period of time suddenly stops drinking, the body can experience certain signs and symptoms of withdrawal. Alcohol withdrawal is likely to start between six hours and a day after the last drink, as reported in American Family Physician. With AWS, they may experience a combination of physical and emotional symptoms, from mild anxiety and fatigue to nausea. Some symptoms of AWS are as severe as hallucinations and seizures. The prevalence of alcohol use disorder (alcohol abuse and dependence in DSM-IV) is estimated to be 14 percent in community based samples in the United States and as high as 40 percent among hospitalized patients. Approximately half of patients with alcohol use disorder experience alcohol withdrawal when they reduce or stop drinking. Prevalence of problem drinking was 12.8% across the age groups with the highest drinking prevalence in the age group under 40. Excessive alcohol use is the third leading risk factor for disease following tobacco and blood pressure.	Lecture cum discussion	5 min	

		alcohol dependency is characterized by craving, intolerance, preoccupation and continuation despite harmful consequences.			
2.	Definitions	**Aerobic Exercise:** Brisk exercise that promotes the circulation of oxygen through the blood and is associated with an increased rate of breathing. Example:- moderate walking (3.5 miles/hour), Jumping Rope, Stair Climbing, Treadmill, Aerobic strength Circuit which helps in reducing alcohol withdrawal symptoms **Withdrawal symptoms**: It refers to patient who is having withdrawal symptoms like sweating, goose-bumps, vomiting, anxiety, insomnia, tremors, confusions, muscle pain etc **Alcohol Dependent :** In the study alcohol dependency is characterized by craving, intolerance, preoccupation and continuation despite harmful consequences.	Powerpoint presentation	3 min	Define aerobic exercise, alcohol withdrawal symptoms and alcohol dependence.
3.	Enumerate sign and symptoms of AWS	**Signs and symptoms** • Sweating • Goose-bumps • Vomiting • Anxiety • Insomnia • Tremors • Confusions • Intolerance • Preoccupation • Delusion • Hallucination	Powerpoint presentation	2 min	Enumerate signs and symptoms of alcohol withdrawal symptoms.

3	Advantages of aerobic exercise	**Advantages** • Improves metabolism • Increase cardiovascular efficiency • Reduces stress • Effective in reducing high blood pressure • Improves cognitive functions ex: memory, thinking, recalling, listening • Enhances respiratory function • Decreases neuro-inflammation and increases vascularization • Improves endocrine functions • Reduces depression, anxiety, panic • Improves sleeping pattern • Increases work efficiency • Strengthens musculoskeletal system	Powerpoint presentation	3 min	Explain the advantages of aerobic exercise.
4	Different types of aerobic exercise.	 • **Moderate walking and jogging (3.5 miles/hour)**  • **Jumping Rope**	Demonstrate	10 min	List down different types of aerobic exercise.

		 • **Stair Climbing**  • **Treadmill**  • **Aerobic strength circuit**			
5	Summary	Aerobic exercise is any type of cardiovascular conditioning, or cardio. It can include activities like brisk walking, swimming, running, or cycling. By definition, aerobic exercise means "with oxygen." The American Heart Association recommends that everyone reach a minimum of 30 minutes of some form of cardiovascular exercise 5 to 6 days per week. This can be broken up into 10-minute time periods. This means that taking 3 walks of 10 minutes each would let you reach the recommended minimum guideline for reducing the risk of heart	Discussion	2 min	

		disease, diabetes, hypertension, and high cholesterol.			
6	Conclusion	Brisk exercise that promotes the circulation of oxygen through the blood and is associated with an increased rate of breathing. It helps in improving psychological and physiological functioning of the alcohol dependent patients by reducing the withdrawal signs. Aerobic exercise also inhibits the chances of relapse of the withdrawal as it improves the efficiency of patient in maintaining positive mind setup.	Discussion	3 min	

Master Data Sheet on Demographic Variables of Control Group

	Age	Weight	Gender	Physical Appearance	Education	Type of Family	Occupation	Marital Status	Duration of Alcohol Consumption	Quantity of Alcohol Consumption	Mode of Admission
S1	A	A	A	A	A	A	A	A	A	A	A
S2	A	A	A	A	B	A	B	A	B	A	A
S3	B	B	A	A	B	A	B	A	C	B	A
S4	B	B	A	A	A	A	B	B	C	B	B
S5	B	C	A	B	A	A	B	A	B	B	A
S6	B	C	A	B	B	A	B	A	C	C	A
S6	B	D	A	B	B	A	B	B	B	C	A
S7	A	B	A	A	D	A	A	B	D	D	B
S8	A	D	A	B	B	A	A	A	D	B	A
S9	A	C	A	B	B	B	D	A	C	C	A
S10	C	C	A	C	B	A	A	A	B	B	A
S11	C	B	A	B	D	A	D	A	D	C	B
S12	C	B	A	D	D	A	D	B	C	D	A
S13	B	B	A	C	C	A	B	A	C	D	A
S14	D	B	A	C	C	A	B	A	D	D	A
S15	B	C	A	B	C	A	B	B	C	D	A
S16	B	B	A	B	D	B	D	B	C	D	A
S17	D	B	A	C	C	A	D	A	D	D	A

S18	B	B	A	C	C	A	B	A	D	D	B
S19	B	B	A	B	C	A	B	A	C	D	A
S20	B	B	A	B	C	A	D	A	C	D	B

Master Data Sheet on Demographic Variables of Experimental Group											
	Age	Weight	Gender	Physical Appearance	Education	Type of Family	Occupation	Marital Status	Duration of Alcohol Consumption	Quantity of Alcohol Consumption	Mode of Admission
S1	A	A	A	A	A	A	A	A	A	A	A
S2	A	A	A	A	B	B	A	A	B	B	A
S3	B	B	A	B	A	B	C	A	B	A	A
S4	B	B	A	A	B	B	A	A	A	B	A
S5	B	B	A	B	B	B	D	A	B	B	A
S6	B	C	A	A	C	B	A	A	B	A	A
S6	A	B	A	B	B	B	A	A	B	B	A
S7	A	C	A	A	C	B	C	A	C	B	A
S8	D	B	A	A	B	B	D	A	C	D	A
S9	B	B	A	C	C	B	C	A	C	C	A
S10	B	B	A	B	C	B	C	A	C	D	A
S11	B	B	A	D	D	B	C	A	D	C	B
S12	B	B	A	B	C	B	C	A	C	C	B
S13	B	C	A	B	C	B	C	A	D	D	B
S14	B	C	A	C	C	B	C	B	C	C	B
S15	B	D	A	B	D	B	D	A	D	D	B
S16	D	B	A	B	C	B	C	B	C	C	B
S17	B	C	A	B	C	B	C	A	C	D	B
S18	B	C	A	D	C	B	C	B	C	D	B
S19	B	B	A	B	D	B	C	B	C	D	B
S20	B	C	A	D	C	B	C	B	C	D	B

MASTER DATA SHEET CONTROL GROUP											
CONTROL GROUP											
PRE-TEST											
SAMPLE	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	TOTAL
1	0	0	0	0	0	0	0	0	0	0	0
2	0	0	2	0	0	3	0	0	4	0	9
3	1	3	0	5	0	0	1	0	0	0	10
4	1	0	4	0	2	0	5	0	0	1	13
5	1	0	0	0	0	0	0	0	0	0	1
6	0	1	0	4	0	0	0	0	0	0	5
7	0	1	0	0	0	0	0	0	0	0	1
8	4	0	1	0	4	0	2	0	0	5	16
9	0	1	0	0	0	0	0	0	0	0	1
10	1	0	0	0	3	0	0	0	0	0	4
11	0	1	0	0	0	3	0	0	0	0	4
12	0	0	1	0	0	2	0	0	0	0	3
13	2	1	0	5	0	3	0	4	0	2	17
14	0	1	0	0	0	0	6	0	0	0	7
15	0	0	1	0	0	0	0	0	0	0	1
16	1	0	0	0	0	0	4	0	0	4	5
17	2	1	3	3	2	0	1	1	0	2	15
18	1	3	0	5	0	0	6	0	2	1	18
19	0	2	0	0	0	0		0	0	2	4
20	0	1	0	0	0	0	2	0	0	0	3

MASTER DATA SHEET CONTROL GROUP											
CONTROL GROUP											
POST-TEST											
SAMPLE	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	TOTAL
1	0	0	4	0	0	0	2	0	0	1	7
2	0	0	2	0	0	3	0	0	4	0	9
3	1	3	0	5	0	0	1	0	0	0	10
4	1	0	4	0	2	0	5	0	0	1	13
5	1	0	0	0	0	0	0	0	0	0	1
6	0	1	0	4	0	0	0	0	0	0	5
7	0	1	0	0	0	0	0	0	0	0	1
8	4	0	1	0	4	0	2	0	0	5	16
9	0	1	0	0	0	0	0	0	0	0	1
10	1	0	0	0	3	0	0	0	0	0	4
11	0	1	0	0	0	3	0	0	0	0	4
12	0	0	1	0	0	2	0	0	0	0	3
13	2	1	0	5	0	3	0	4	0	2	17
14	0	1	0	0	0	0	6	0	0	0	7
15	0	0	1	0	0	0	0	0	0	0	1
16	1	0	0	0	0	0	4	0	0	4	5
17	2	1	3	3	2	0	1	1	0	2	15
18	1	3	0	5	0	0	6	0	2	1	18
19	0	2	0	0	0	0		0	0	2	4
20	0	1	0	0	0	0	2	0	0	0	3

MASTER DATA SHEET CONTROL GROUP											
EXPERIMENTAL GROUP											
PRE-TEST											
SAMPLE	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	TOTAL
1	0	0	0	0	0	0	0	0	0	0	0
2	0	0	2	0	0	3	0	0	4	0	9
3	1	3	0	5	0	0	1	0	0	0	10
4	1	0	4	0	2	0	5	0	0	1	13
5	1	0	0	0	0	0	0	0	0	0	1
6	0	1	0	4	0	0	0	0	0	0	5
7	0	1	0	0	0	0	0	0	0	0	1
8	4	0	1	0	4	0	2	0	0	5	16
9	0	0	0	0	0	0	0	0	0	0	0
10	1	0	0	0	3	0	0	0	0	0	4
11	0	1	0	0	0	3	0	0	0	0	4
12	0	0	1	0	0	2	0	0	0	0	3
13	2	1	0	5	0	3	0	4	0	2	17
14	0	1	0	0	0	0	6	0	0	0	7
15	0	0	0	0	0	0	0	0	0	0	0
16	1	0	0	0	0	0	4	0	0	4	5
17	2	1	3	3	2	0	1	1	0	2	15
18	1	2	0	2	0	0	5	0	0	1	10
19	0	2	0	0	0	0		0	0	2	4
20	0	1	0	0	0	0	2	0	0	0	3

MASTER DATA SHEET CONTROL GROUP											
EXPERIMENTAL GROUP											
POST-TEST											
SAMPLE	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	TOTAL
1	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0

ANNEXURE-I

ANNEXURE-II

1. Dr. S.P Bharti
   Clinical Psychologist
   SMC & CSSH

2. Mrs. Moirangthem Sumita
   Associate professor
   Army Institute of Nursing
   Guwahati

3. Prof. Vir Vikram Singh
   College of Nursing, LLRM
   Meerut

4. Arshi Anjum Khan
   Asst. Professor
   Holy Family College of Nursing
   New Delhi

5. Dr. Vivek Kumar
   Department of Psychiatry
   SMC & CSSH

6. Mr. Chris Thomas
   Associate Professor
   SLM Global Nursing College, Abu Road
   Rajasthan

7. Mr. Blessy George Gabriel
   Registered Nurse Govt. Hospital M.sc(N)
   Tamilnadu

ANNEXURE- III

Data Collection Tool

Section-1

DEMOGRAPHIC VARIABLES

Name …….

1) Age (in years) ……

2) Weight (in Kg) ……..

3) Gender
   a) Male
   b) Female

4) Physical Appearance
   a) Excited
   b) Nervous
   c) Well Groomed
   d) Dull/Sick

5) Education
   a) No Formal Education
   b) Primary Education
   c) Secondary Education
   d) Higher Education
   e) Graduate

6) Type of family
   a) Nuclear
   b) Extended
   c) Constituted

7) Occupation
   a) Government Job/Private Job
   b) Self Employed
   c) Pensioner
   d) Unemployed

8) Marital status
   a) Married
   b) Unmarried
   c) Widow
   d) Divorced

9) Duration of alcohol consumption
   a) 6 months-1 year
   b) 1year-3year
   c) 3year-5year
   d) Above 5 year

10) Quantity of alcohol consumption (Small Peg: 30 ml Large Peg: 60 ml)
   a) 30 ml- 60 ml
   b) 30 ml-90 ml
   c) 30 ml-120 ml
   d) 30 ml-150 ml

11) Mode of admission
   a) Voluntary
   b) Involuntary
   c) Miscellaneous

शराब प्रत्याहार मूल्यांकन स्कोरिंग दिशा निर्देश (CIWA-Ar Scale)

जी मिचलाना/ उल्टी करना दर 0-7 के बीच

0- कुछ भी नहीं
1-हल्की मतली / बिना उलटी के
2
3
4-रुक-रुक कर होने वाली मतली
5
6
7- लगातार मतली / लगातार सखी भारी और उल्टी

झटके - विस्तारित भुजा एवं फैली हुई अंगुलियां 0-7 के बीच

0 - कोई झटके नहीं
1 – अदृश्य (उंगलियों पर महसूस किया जा सकता है)
2
3
4 - विस्तारित भुजा/ मध्यम
5
6
7 – तीव्र

घबराहट दर 0-7 के बीच

0 - कोई घबराहट नहीं
1 - हल्की घबराहट
2 -
3
4 - मध्य श्रेणी का घबराहट / संभलकर बोला हुआ
5
6
7 – तीव्र घबराहट की स्थिति / चित्तविभ्रम/ विखंडितमनस्कताग्रस्त की स्थिति में देखा हुआ

व्यग्रता दर 0-7 के बीच

0 - सामान्य गतिविधि
1 - कुछ सामान्य गतिविधि
2
3
4 - मध्यम रूप से चंचल एवं अशांत
5
6
7 - बेचैन / असामान्य शारीरिक गति

कंपकंपी के साथ पसीना दर 0-7 के बीच

0 - सहज / पसीनारहित
1 - मुश्किल से प्रत्याक्ष / हथेली में आर्द्रता
2
3
4 - माथे पर पसीने की बूँद
5
6
7 - पसीने से भीगे हुए

दिशानिर्देश एवं ज्ञानेन्द्रियों का धुँधलाना दर 0-4 के बीच

0 - उन्मुख
1 - क्रमिक जोड़ में असक्षम / तारीख के बारे में अनिश्चित

2 - तारीख के बारे में अनिश्चित (2 कैलेंडर दिनों से अधिक नहीं)

3 - तारीख के बारे में अनिश्चित (2 कैलेंडर दिनों से अधिक)
4 - जगह और व्यक्ति के बारे में अनिश्चित

स्पर्श-संबंधी विघ्न (खुजली/चुभन/जलन/सुन्न/त्वचा के नीचे रेंगने वाले कीड़े)
0 - कोई नहीं
1 - बहुत हल्का खुजली/चुभन/जलन/सुन्न
2 - हल्का खुजली/चुभन/जलन/सुन्न
3 - मध्यम खुजली/चुभन/जलन/सुन्न
4 - मध्यम मतिभ्रम
5 - तीव्र मतिभ्रम
6 - अत्यंत गंभीर मतिभ्रम
7 - निरंतर मतिभ्रम

श्रवण बाधा (अपने आस पास के आवाज़ से अवगत/चौकना/कठोर/मतिभ्रम)
0 - अनुपस्थित
1 - बहुत हल्का कठोर/ चौकना
2 - हल्का कठोर/ चौकना
3 - मध्यम रूप से कठोर/ चौकना
4 - मध्यम मतिभ्रम
5 - तीव्र मतिभ्रम
6 - अत्यंत गंभीर मतिभ्रम
7 - निरंतर मतिभ्रम

दृष्टि बाधा (रौशनी का तेज़ प्रतीत होना /क्या रंग में परिवर्तन है /क्या आपको कुछ दीखता है जोप आपको परेशान करता है)
0 - अनुपस्थित
1 - बहुत हल्का संवेदनशील
2 - हल्का संवेदनशील
3 - मध्यम संवेदनशील
4 - मध्यम मतिभ्रम
5 - तीव्र मतिभ्रम
6 - अत्यंत गंभीर मतिभ्रम
7 - निरंतर मतिभ्रम

सरदर्द (क्या आपके सर में कुछ बंधा हुआ महसूस होता है/ क्या आप सर में सामान्य से अलग महसूस करते है)
0 - अनुपस्थित
1 - बहुत हल्का
2 - हल्का
3 - मध्यम
4 - तीव्र
5 -अत्यंत तीव्र
7 - अत्याधिक

PANNA DHAI MAA SUBHARTI NURSING COLLEGE

EFFECTIVENESS OF AEROBIC EXERCISE ADMINISTRATION

ON

ALCOHOL WITHRAWAL SYMPTOMS AMONG ALCOHOL DEPENDENT PATIENT

SUBMITTED BY:

PICTURE GALLERY

Withdrawal patients practicing aerobic exercise during main study.

Pre-test and post-test of the withdrawal patients during pilot study.