EFFECTIVENESS OF AEROBIC EXERCISEFOR REDUCTION ON ANXIETY AMONGANALCOHOLIC DEPENDENCEIN SELECTED DE ADDICTION CENTER AT MADURAI, TAMIL NADU.

A DISSERTATION SUBMITTED TO THE TAMILNADU DR. M. G. R MEDICAL UNIVERSITY, CHENNAI IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE DEGREE OF MASTER OF SCIENCE IN NURSING

APRIL – 2014

EFFECTIVENESS OF AEROBIC EXERCISE FOR REDUCTION ON ANXIETY AMONG ANALCOHOLIC DEPENDENCE IN SELECTED DE ADDICTION CENTER AT MADURAI, TAMIL NADU.

BY

301230551

A DISSERTATION SUBMITTED TO THE TAMILNADU DR. M. G. R MEDICAL UNIVERSITY, CHENNAI IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE DEGREE OF MASTER OF SCIENCE IN NURSING

APRIL – 2014

AMONGALCOHOLIC DEPENDENCEIN SELECTED DEADDICTION CENTER AT MADURAI, TAMIL NADU.

Approved by the dissertation Committee on : ……

HOD in Research : ……...

Prof. Mrs. SHABERA BANU, M.Sc., (N), Ph.D
Principal,
Matha College of Nursing,
Manamadurai.

Clinical Specialty Expert : ……..……

Mr.PREM KUMAR, M.Sc., (N),
Reader in Mental Health Nursing,
Matha College of Nursing,
Manamadurai.

Medical Expert :…….……

Dr. KARTHIKEYAN .M.D.D.M,
Psychiatricconsultant,
Meenakshi MissionHospital and Research centre,
Madurai.

A DISSERTATION SUBMITTED TO THE TAMILNADU DR. M. G. R MEDICAL UNIVERSITY, CHENNAI IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE DEGREE OF MASTER OF SCIENCE IN NURSING

APRIL – 2014

MATHA COLLEGE OF NURSING

(Affiliated to the TN Dr. M.G. R. Medical University)

VAANPURAM, MANAMADURAI – 630 606,

SIVAGANGAI DISTRICT, TAMILNADU.

CERTIFICATE

This is the bonafide work of **Reg.No.301230551,** M.Sc., Nursing **(2012 – 2014 Batch)** II year student from Matha College Of Nursing, (Matha Memorial Education Trust) Manamadurai – 630 606, submitted in partial fulfillment for the **Degree of Master of Science in Nursing**, under the Tamilnadu Dr. M. G. R. Medical University, Chennai.

SIGNATURE: ……..

Prof. Mrs. SHABERA BANU, M.Sc., (N), Ph.D
Principal, MathaCollege of Nursing,
Manamadurai.

COLLEGE SEAL:

APRIL – 2014

ACKNOWLEDGEMENT

"Oh, give thanks to the 'lord', for he is good!

For his mercy endures forever"

First, I thank from the deepest of my heart, the **Lord Almighty** and give all the glory and honour for his never failing love, grace and blessing that enabled me to complete this study successfully

I wish to express my sincere thanks to Mr. **JEYAKUMAR, M.A, B.L.,** founder chairman and Mrs**. JEYAPACKIAM JEYAKUMAR, M.A.,** Bursar of Matha memorial educational trust, Manamadurai for their unstinted support, continuous encouragement and providing the required facilities for the successful completion of the study.

My sincere thanks to Professor **Mrs. SHABERA BANU, M.Sc., (N) Ph.D.,** Principal, Head of the Dept of obstetrics and gynecology Nursing, Matha college of Nursing, Manamadurai, for her elegant direction and valuable suggestion for completing this study.

I extend my thanks to professor **Mrs. STELLA SAHAYA MARY M.Sc.,(N), Ph.D.,**AcademicVice principal of Matha college of Nursing, Manamadurai, for her valuable suggestions and advice given throughout this study.

I extend my thanks to professor **Mrs.BHARATHA SORUBA RANIM.Sc.,(N), Ph.D.,** Administrative vice principal of Matha college of nursing, Manamadurai, for her valuable suggestions and advice given throughout this study.

I express my greatful thanks to **Mr.PREM KUMAR M.Sc. (N),** Reader in mental health nursing cum guide, for his valuable suggestions, guidance and elegant motivation throughout the study. He gave great concern, immense help and support without which the study would never have taken this commendable shape and form.

I greatful thanks to **Mrs. NANDHINI M.Sc(N),**Asst. professor in child health nursing cum co-ordinator for her valuable suggestions, elegant motivation throughout the study.

I am immensely thankful to **Ms.ROGINA.J.S.SAVARIMUTHUM.SC.(N), Mrs.ROJA RAMANI M.Sc.(N), and M.Sc (N) LECTURERS** in mental health Nursing for their timely help, valuable suggestions and guidance for successful completion of this study.

I extend my sincere thanks to the **PANEL OF JUDGES** in the dissertation committee and all my respectful **Professors, ASSOCIATE PROFESSORS AND LECTURERS** of Matha College of Nursing for their valuable suggestions and guidance during the proposal and throughout the study.

I am thankful to the **LIBRARIANS** of Matha college of Nursing, Manamadurai and The Tamilnadu Dr. M.G.R Medical University, Chennai, for extending library facility throughout the study.

My deep sense of gratitude is due to **Dr.KARTHIKEYAN , M.D (Psy.) DPM**, Psychiatry Department Meenakshi Mission Hospital And Research Center, Madurai for his valuable guidance and timely help in making this study a grand success.

My Sincere thanks to profoundly **Dr..KANNAN**,**Ph.D,** Professor of Biostatistics, for his immense help and guidance in statistical analysis and Presentation of data.

I would like to extend my thanks **Mr.SURYA B.E choreographer of** The southern swingers Institution, for their valuable training and guidance in the aerobic exercise.

We will be failing in our duty if we don't thank our **parents**&**my Sisters** and **my brother** for their benevolence and blessings which stood us in good stead during the course of the project.

The onus of thanking can't be finished without memorizing my beloved friends (**Veer,Dhileepan, Raj Kumar, Selvin Raj Kumar,Sam**and others) who encouraged and supported in finishing my project on time.

I am grateful to all the experts who have contributed with their valuable suggestions in validating the tool.

This study would not have been possible without the encouragement and co-operation of my friends.

I also express my thanks to the editors for editing and the computer technicians for their help and untiring patience in printing the manuscript and completing the dissertation work.

As a final note, my sincere thanks and gratitude to all, those who directly or indirectly helped in successful completion of this dissertation.

ABSTRACT

STATEMENT OF THE PROBLEM:

"A study to assess the effectiveness of aerobic exercises on reduction of anxietyamong analcoholic dependence in selected de addiction center at Madurai"

METHODOLOGY

A quantitative approach was used for this study .The study population was alcoholic dependence who are staying in de addiction center at Madurai .The sample size consists of 60 samples. Purposive sampling was used to select the samples. One group pre test post test design was used in this study. The data collection tool was 1.demographic data 2.Standardized Hamilton anxiety scale. Conceptual frame work is based on Roys adaptation Model. The content validity and reliability were established for the entire tool. The pilot study was conducted to find out the feasibility of the main study. The collected data was analyzed by using descriptive and inferential statistics.

OBJECTIVES

- To assess the pre test level of anxiety among alcoholic dependence in deaddiction centers at Madurai.

- To assess the post test level of anxiety among alcoholic dependence in de addiction centers at Madurai.
- To find out the effectiveness of aerobic exercise in post test level of level of anxiety among alcoholic dependence in de addiction centersat Madurai.
- To associate mean pre test level of anxiety among alcoholic dependence with their selected demographic variables.

Hypotheses:

- **H_1:** The mean post test score of anxiety lesser than the mean pre-test score of anxiety among alcoholic dependence.
- **H_2:**There will be a significant association between mean pre test anxiety and their selected demographic variables such as age, education ,religion,, , occupation,, marital status, income, place of living, type of family, duration of stay, duration of consumption, type of alcohol, amount of consumption, causative factorsfor alcohol consumption.

MAJOR FINDINGS OF THE STUDY.

Majority of the samples 20(33.3%) belonged to the age group of 20-30 years and 22(36.7%) samples belonged to the age group of 31-40 years.

Regarding the groups majority of the samples were Hindus by religion 51(85.0%) in 60 samples,9(15%) were other religion.

Regarding educational status, majority19 (31.7%) of the samples had illiterate 7(11.7%) of samples had primary education and 17(28.3%)of samples had high school / higher secondary education, the 17(28.3%) of the samples had Diploma and graduate.

Regarding the occupational status, majority 25(41.7%) of the samples from were coolie and16 (26.7%)were business man12,(20%) were private employees.

Regarding marital status, 7(11.7%) single and 20(33.3%) married, majority of 22(36.7%)divorced or separated whereasin the 60 samples, 11(18.3%) of them widower.

Regarding the family income per month, majority35 (58.3%) of the samples in the had an income of Rs. 3001-57000, whereas whereas in the 14(23.3%) had an income of Rs. 5001-7000.

Regarding the type of family, majority 37(61.7%) of them were from nuclear family in the group, 23(38.3%) of them were in the joint family.

Regarding the place of residence, majority of the samples were from rural areas and in the as 33(55%) and 27(45 %) were from urban areas respectively.

Regarding the duration of stay, majority59 (98.3%) of the samples were staying for less than one month whereas1 (1.7%) of the samples were staying than one month . With regard to the duration of consumption of alcohol, majority29(48.3%) of the samples were consuming alcohol for 3-5years and whereas in, 23(38.3.3%) were consuming alcohol for 6-8 years.

Regarding the types of alcoholic beverages, majority of them were taking Indian made foreign liquor both in the 59(98.3%) and 1(1.7%) respectively.

Regarding the amount of alcohol consumption in a day for the past one month, majority of them 30(50%) were taking 90ml-279ml and16 (26.7%) of them were taking 180-296ml..

Regarding the factors causing anxiety, majority 27(Regarding the types of alcoholic beverages, majority of them were taking Indian made foreign liquour both in the 59(98.3%) and 1(1.7%) respectively.

Regarding the amount of alcohol consumption in a day for the past one month, majority of them 30(50%) were taking 90ml-279ml and16 (26.7%) of them were taking 180-296ml..

Regarding the factors causing anxiety, majority 27(45%) of them experienced anxiety due to financial factors 20(33.3%) of them experienced anxiety due to about withdrawal behavior.

RECOMMENDATIONS

On the basis of the present study the following recommendations have been made for further studies.

- A descriptive study can be undertaken to determine the level of anxiety and different anxiety disorders among alcohol dependence.
- A longitudinal study can be undertaken to see the long term effect of aerobic exercise in reducing the level of anxiety.
- A similar study can be done in various other settings with large samples.
- A qualitative approach can be applied in studying the effects of aerobic exercise on anxiety.

CONCLUSION

These findings of the study have been discussed in terms of the objectives, theoretical base and hypothesis.

1. Most of the alcohol dependence in selected de-addiction centres suffered from anxiety.

2. Aerobic exercise was effective in reducing the level of anxiety among the alcohol dependence in the de-addiction centers.

The findings indicate that aerobic exercise can be administered to all the groups of psychiatric patients in reducing the level of anxiety.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDIX

CHAPTER – I

INTRODUCTION

"Alcoholis1m isn't a spectator sport. Eventually the whole family gets to play"

- Joyce Rebeta –Burdi

BACKGROUND OF THE STUDY

The word 'ALCOHOL' is derived from the Arabian term "Alkakal'' which means " finely divided spirit''. The usage of alcohol may vary across societies and cultures. In this modern world man has to face many problems to lead the life in a successful way. If he fails to succeed then he may end up in anxiety, frustration, irritability, depression, lack of confidence and self concept. To get rid of these emotions, an individual starts to sip alcohol as he/she goes for parties and later on becomes addicted to it. India is one of the largest producers of alcohol in the world and that has been steadily increasing in the developing countries like India and decreasing in the developed countries since 1980s. It is estimated that there are 62.5 million alcohol users in India. Alcoholism remains a serious problem in a contemporary society around the world. Alcohol dependence is the major public health

problem worldwide and it is the fourth leading cause of disability .Alcohol dependence is present in approximately 4 % of the United State Adult is common among primary care patients and may contribute to more than 1,00000 preventable deaths per year. **(P. Devi 2004)**

Alcoholism and anxiety are co-morbid, or occur together. Between 22 percent and 69 percent of alcohol dependence patients have co morbid anxiety (**Robert 2005**). Researchers and clinicians have long observed that the rate of anxiety disorders among those suffering with Alcohol dependence is two to four times greater than that found in the general population . " Anxiety disorders are fairly common to begin with, about 15 percent of all adults, but the rate of anxiety disorders among alcohol dependent, individuals can be as high as 50 percent **(Kushna 2005)** .

Smail ,shockwell, Canter and Hodgson (2009) conducted a prevalence study to assess anxiety among sixty male alcohol dependent patients. It was found that 21 subjects had severe phobias. The more severely phobic patients were more alcohol dependent patients. Kushner, Kenneth and Carrie (2001) conducted a systematic review on the relationship between alcohol dependence and anxiety by reviewing the laboratory, clinical, family and prospective studies. Finding shows that there is an increased co-morbid anxiety among alcohol dependence.

Schukit and Herrebrock (2004) conducted a co-relation study to assess the relationship between the alcohol dependence and anxiety among alcoholic dependence. Retro perspective analysis was used and the reports were collected from database Medline during the period of 1975-1994. Results show that the high rates of co-morbidity in some studies likely reflect a mixture of true anxiety disorders among alcoholics at a rate equal to or slightly higher than that for the general population, along with temporary, but at times severe substance induced anxiety syndrome

In recent years, a growing body of empirical research has examined the numerous physical and psychological benefits of exercise, and has begun to explore potential treatment applications of exercise **(United States Department of Health and Human Services 2006).**

Exercise may represent a potentially useful and relatively unexplored alternative behavior for alcoholics working toward long-term recovery on "Lifestyle Modification," (**Marlatt, 2006)** and cites exercise as "a highly recommended lifestyle changing activity" and discusses the advantages of exercise as a relapse prevention strategy. Other writers have agreed that lifestyle-enhancing factors such as exercise and fitness may play an important role in the prevention and treatment of addictive disorders **(Agne & Paolucci, 1982; C.B. Taylor, Sallis, & Needle, 2005; Tkachuk & Martin, 2009).**

Exercise also has the potential to be cost-effective, flexible and accessible; many forms of exercise (e.g., running, fitness videotapes, swimming) may be conducted independently, either at home or outdoors and associated costs are likely to be minimal. Finally, exercise has minimal side effects compared to pharmacological. **(Broocks et al., 2008**).

With the use of proper precautions for prevention of injuries, exercise carries with it far less risk of adverse events than does the use of psychotropic medication. (**American College of Sports Medicine, 2006).**

Thus it appears that exercise participation may offer decided advantages as a maintenance strategy for alcohol dependent individuals. Research is proving that aerobic exercise has a part to play in the treatment of psychological and mental health problems.

SIGNIFICANCE AND NEED FOR THE STUDY

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

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 1999-2000. It was expected to treble to 2,300 million liters by 2007-08. **(Alcohol Atlas of India.2009**).

Studies by Alcohol and Drug Information Centre (ADIC)-India shows an alarming increase in alcohol consumption among adolescents and youth during the last 20 years. The average age of initiation to alcohol in Kerala which was 19 years in1986 has come down to 14 years in 2006.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

violence and 94.5 per cent of women identified their husband's alcohol consumption **(www.nimhans.org, 12-3-2011).** An 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 anxiety .

Marcurus (2006) 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

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 anxiety. So the research wanted to find out the effectiveness of aerobic exercise on anxiety and has undertaken this study

STATEMENT OF THE PROBLEM

"A study to assess the effectiveness of aerobic exercise on reduction of anxiety among on anxiety among an alcoholic dependence in selected de addiction centers at Madurai".

OBJECTIVES OF THE STUDY

- To assess the pre test level of anxiety among alcohol dependence in the selected de addiction centers at Madurai.
- To assess the post test level of anxiety among alcohol dependence in the selected de addiction centers at Madurai.
- To find out the effectiveness of aerobic exercise on reduction of anxiety among an alcohol dependence.

- To associate the pre test anxiety levels of alcohol dependence with their demographic variables such as age, occupation, religion, education, income, duration of consumption, type of family, place of residence and duration of stay

HYPOTHESES

All hypotheses was tested at 0.05 level of significance.

1. The mean post-test anxiety score of the alcohol dependence who had aerobic exercise was a significantly lesser than the mean pre-test anxiety score among alcoholic dependence.
2. There was a significance association between the pre test anxiety level of alcohol dependence and their selected demographic variables such as age ,religion, education, occupation, marital status, income of the family, type of family, place of living, duration of stay in hospital, duration of consumption ,type of alcohol ,amount of consumption during past one month, causative factors.

OPERATIONAL DEFINITION

Alcohol Dependence

It is a psychiatric diagnosis describing an entity in which an individual uses alcohol despite significant areas of dysfunction, evidence of physical dependence and / or related hardship.

Anxiety

Anxiety is a diffuse apprehension present in the alcohol dependence that is vague in nature and associated with feelings of isolation, alienation and insecurity which is measured by Hamilton anxiety scale.

Aerobic Exercise

It is a systematic and regular movement of hands and legs performed in well ventilated room to the slow, rhythmic music in three sequential sessions namely warm up, work out and cool down.

Effectiveness

It is the outcome of the aerobic exercise which will be appraised, validated by decrease in the anxiety level among alcohol dependence after interventions and measure by Hamilton anxiety scale.

De addiction Centers

De addiction centers refers to the institutions where the alcohol dependence are getting treatment.

ASSUMPTIONS

1. Alcohol dependence are filled with anxiety, frustration, indecisiveness, struggle and looking out for support.
2. Many alcohol dependence patients are affected by mental health problems.
3. Aerobic exercise has an effect on the body and the mind .

Delimitations

1. The study is delimited to the alcohol dependence who are in selected de addiction centers at Madurai.
2. The data collection period is limited to six weeks.

Projected Outcome

This study proposes to evaluate the effectiveness of aerobic exercise in the reduction of anxiety among alcohol dependent patients.

1. The findings of the study will elicit the level of anxiety among alcohol dependence
2. The study report will help to arrange aerobic exercise sessions in order to manage anxiety among alcohol dependence.

Conceptual Framework

The conceptual framework in this study is based on the sister Callista Roy's Adaptation Model (1939) which involves five concepts.

- Person

- Goal of nursing
- Nursing activities
- Health
- Environment

The adaptive system has four components like input, processes, effectors and output.

For the present study, the above mentioned components have been modified as follows:

1.Roy states that the recipient of nursing care may be an individual, a family, a group, a community or a society. Each one is considered as an adaptive system. In this study the focus is on individual person as an adaptive system, who are in constant interactions with their environments.

It causes exchange of information, matter and energy. The constant interaction of persons with their environment is characterized by both internal and external change. In this changing world, persons must maintain their own integrity i.e. each person must make some kind of adaptation for better existence. Hence the person is viewed as an adaptive system. It has input, coming from the external environment as well as internally from itself. In this study, assessment of anxiety among alcohol dependence are taken as input.

2. Roy has utilized the harm-coping mechanisms to describe the control process of the person as an adaptive system. Some are inherited or genetic, other mechanisms are learned.

In this study aerobic exercises are learned and practiced by the alcohol dependent patients under supervision to cope with anxiety.

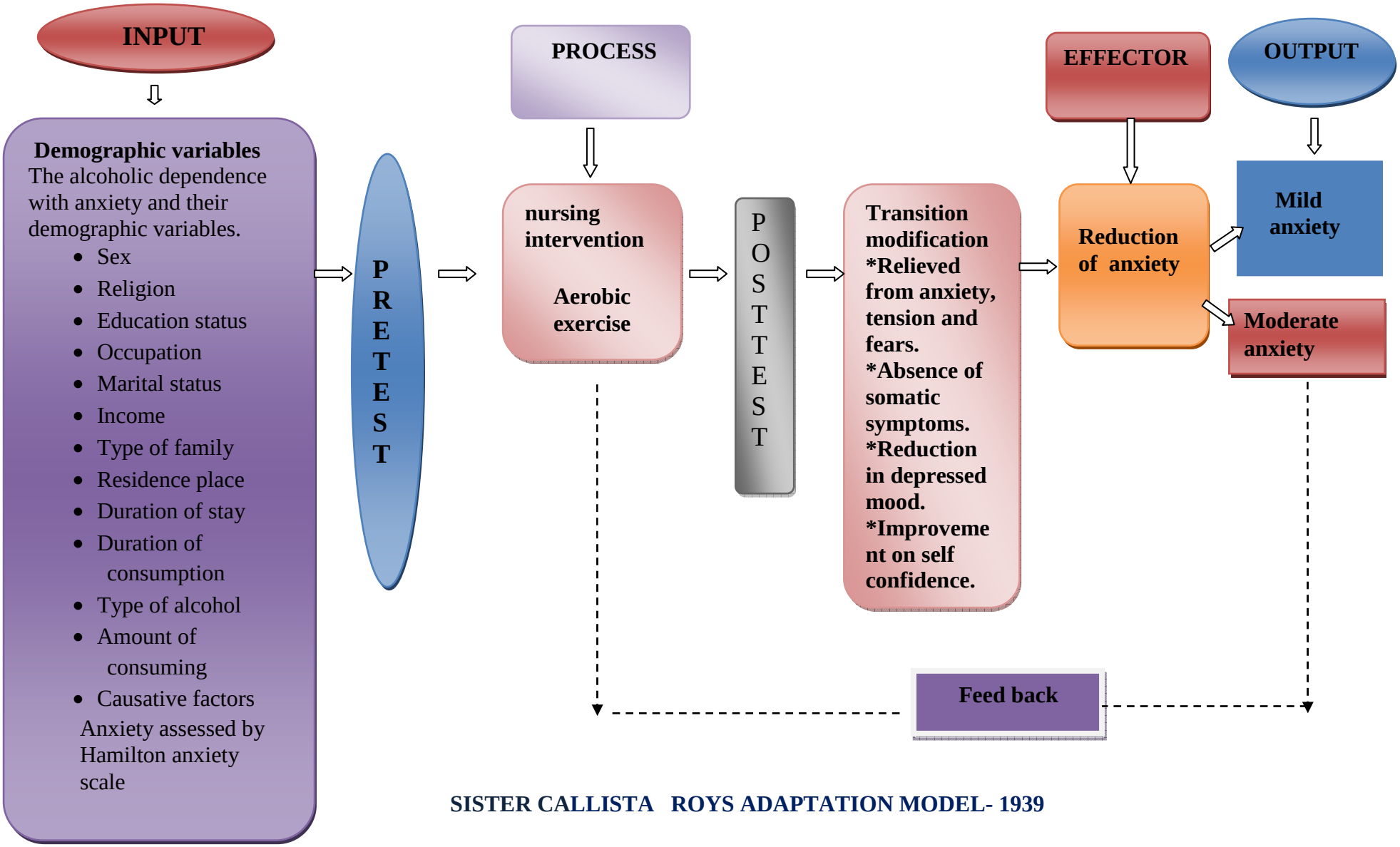
3. Effectors refer to the regulator and cognator. There are the sub-systems of the person as a system. It is viewed as acting with four adaptive modal such as physiological function, self concept, role function and interdependence.

In this study, the effectors are the adaptive modes of the alcohol dependent patients which are regulated by the neuro- endocrine changes gained through the practice of aerobic exercise.

4. Outputs of the person as a system are the behaviors of the persons. Output behaviors can be both external and internal. These behaviors observed, measured or subjectively reported, becomes the feedback to the system.

Roy states output of the system as either adaptive responses or ineffective responses. In this study the positive or the adaptive responses to aerobic exercise on anxiety becomes the output. It can be either positive, that is reduction in anxiety or negative result, such as no

reduction in anxiety. In this case, the negative result becomes the feedback, where it must be reassessed and reinstituted in the aerobic exercise in the same manner or in a modified way.



SISTER CALLISTA ROYS ADAPTATION MODEL- 1939

CHAPTER II

REVIEW OF LITERATURE

"First the man takes a drink; then the drink takes a drink; then the drink takes the man".

Japanese Proverb

The review of related research and theory on a topic has become a standard and virtually essential activity of scientific research projects. Review of literature was done to gain indepth knowledge of the various aspects of the problem from published articles, text, books reports and Medline search. Literature review is a critical summary of research on a topic of interest, often prepared to put a research problem in context or as the basis for an implementation project. (Polit & Hungler, 2012)

Literature review is organized and presented under the following headings in this study.

1. Studies related to overview of alcohol and alcohol dependence.
2. Studies related alcohol dependence and anxiety.
3. Studies related to aerobic exercise.

4. Studies related to the effect of aerobic exercise on anxiety among patients with alcohol dependence.

1. STUDIES RELATED TO OVERVIEW OF ALCOHOL AND ALCOHOL DEPENDENCE:

ALCOHOL:

Alcohol refers to pure spirit of wine, pure or highly rectified spirit .It is extracted by simple distillation from various vegetable juices and infusions of a saccharine nature. **(online dictionary-babylon.com, 30-05-2011)**.

Alcoholism

Alcoholism is a primary illness or disorder characterised by some loss of control over drinking, with habituation or addiction to the drug alcohol,causing interference in any major life function example. health, family, family, job, spiritual, friends, legal, etc (**http://www.alcoholism-and-drug-addiction-help.com/definition-of-alcoholism.html,28-8-2011**).

Having friends or a close partner who drinks regularly could increase your risk of alcoholism. The glamorous way that drinking is sometimes portrayed in the media may also send the message that it's ok

to drink excessively (**www.alcoholism and drug addiction.com, 3-11-2011)**

AUDIT

The Alcohol Use Disorders Identification Test (AUDIT) is the most accurate alcohol screening tool for identifying potential alcohol misuse, including dependence. It was developed by the World Health Organisation, designed initially for use in primary health care settings with supporting guidance. (**www.wikipedia.org, 5-7-2011).**

The CAGE Test

One of the oldest and most popular screening tools for alcohol abuse is the CAGE test, which is a short, four-question test that diagnoses alcohol problems over a lifetime.

C - Have you ever felt you should **cut down** on your drinking?

A- Have people **annoyed** you by criticizing your drinking?

G - Have you ever felt bad or **guilty** about your drinking?

E - Eye opener: Have you ever had a drink first thing in the morning to steady your nerves or to get rid of a hangover? **(counselingresource.com, 14-7-2011).**

Alcohol dependence is a psychiatric diagnosis (a substance related disorder DSM-IV) describing an entity in which an individual uses alcohol despite significant areas of dysfunction, evidence of physical dependence and/or related hardship and also may cause stress and bipolar disorder.(**www.wikipedia.org, 5-7-2011**).

Saha,T.D,Grant,B.F(2006)research shows that people are most likely to drink the heaviest in their late teens and early twenties.70 percent of young adults, or about 19 million, reported drinking in the year preceding this survey. They found that although rates of heavy episodic drinking were slightly higher for college students than for non college students, the greatest differences were related to where those young adults lived.

Romanowicz M,(2009) Alcohol consumption is associated with a broad array of physiologic and behavioural effects including changes in heart rate.A significant inverse correlation was found between heart rate variability and both the severiority of depression and the duration of the depressive episode and anxiety.At present however there is almost no research data supporting this hypothesis.

Chung T ,Maisto SA (2006) Relapse serves as an early warning sign of a failure to maintain desired behavioural change. Because relapse is ideally understood in the context of longer term patterns of use,the review also discusses the extent to which early episodes of use mark clinically significant change points in post-treatment course,and how knowledge of longer term clinical is essential to understanding the relapse process and mechanisms underlying the maintenance of behavioural change.

National Epidemiologic Survey on Alcohol and Related Condition(2004) Researchers reported that the risks of meeting the criteria for both alcohol and abuse were in direct proportion to how often people exceeded the daily limits. people who begin to drink at a young are at much higher risk of developing a problem with alcohol later in life. This link between early drinking and later problems was first demonstrated using data. Researchers found that 45 percent of the people who began drinking before the age of 14 developed later alcohol dependence, compared with only 10 percent of those who waited until they were 21 or older to start drinking.

2. STUDIES RELATED TO ALCOHOL DEPENDENCE AND ANXIETY:

Joshua, Brian and Michael (2004)who conducted a study on the effect of aerobic anxiety sensitivity , showed that it reduces the anxiety sensitivity . Anxiety sensitivity is a known precursor to panicattacks and panic disorder. Exercise and specifically aerobic exercise that increases oxygen levels in the body is a natural, non-Two of the most common anxiety disorders found among alcoholics are social phobia, or fear and avoidance of social situations and panic disorder or persistent " panic attacks" or episodes of intense anxiety " (**Connor 2006).**

Schukit and Herrebrock (2005) conducted a co-relation study to assess the relationship between the alcohol dependence and anxiety among alcoholic patients. Retroperspective analysis was used and the reports were collected from database Medline during the period of 2005-2008. Results have shown that the high rates of co-morbidity in some studies are likely to reflect a mixture of true anxiety disorders among alcoholics at a rate equal to or slightly higher than that for the general population, along with temporary, but at times severe substance induced anxiety syndromes.

Loes.a. Marquenie etal , (2007) conducted a co-relational study to assess the alcohol dependence and anxiety among alcoholic patients. Retroperspective analysis was used for data collection and the sampling method used was multistage, stratified random sampling procedure. Results showed elevated co-morbidity rates of alcohol dependence and anxiety disorder .

Kushner, Kenneth and Carrie (2007) conducted a systematic review on the relationship between alcohol dependence and anxiety by reviewing the laboratory, clinical, family and prospective studies. Finding shows that there is an increased co-morbid anxiety among alcohol dependent patients.

Smail, Hockwell, Canter and Hodgson (2009) conducted a prevalence study to assess anxiety among sixty male alcohol dependent patients. It was found out that 21 subjects had severe phobias. The more severely phobic patients were more alcohol dependent patients.

3. STUDIES REALTED TO AEROBIC EXERCISE:

Aerobic exercise is a physical exercise of relatively low intensity that depends primarily on the aerobic energy-generating process. Aerobic literally means "living in air" and refers to the use of oxygen to adequately meet energy demands during exercise. **(www.wikipedia.org,6-9-2011).**

Aerobic exercise is defined as "any activity that uses large muscle groups, that can be maintained continuously, and is rhythmic in nature." (**The American College of Sports Medicine, 2012).**

Today, the message is loud and clear, but with different modalities. The running craze from the 1970s is still going strong, with numerous marathons, 5- and 10-kilometer races and triathlalons testing the limits of aerobic exercise. Group classes have evolved from simply aerobics to step aerobics, kickboxing, Zumba, boot camp and spinning. Aerobic training machine options now feature treadmills, stair climbers, elliptical trainers and a variety of indoor cycling options. **(http://www.livestrong.com,22-3-2011)**

Aerobic exercise is the simple form of exercise which can be easily followed and practiced by an individual. Human beings need relaxation and want to spend their life in a peaceful manner**.** Regular aerobic exercise has been shown to decrease the amount of anxiety a

person typically experiences in his/her daily life. It appears that low to moderate intensity exercise is the best for such a benefit, while an exercise in with the intensity level is too high may not be of as much (if any) benefit. Such an impact on anxiety has not been demonstrated for resistance exercise. The impact of regular aerobic exercise on the amount of anxiety a person typically experiences in his/her daily life is even greater for those who have a diagnosable anxiety disorder. This appears to be true, regardless of whether or not a person experiences any increases in physical fitness. It also appears that this benefit is noted when the intensity of exercise is low to moderate (**Counselling & Psychological Services, University, of California,2005).**

" Exercise has long been regarded in popular culture as a good way to relax when a person is feeling anxious or nervous. Aerobic exercise is a continuous exercise without intermittent rest periods as in going for a jog , walking, swimming laps at a pool and riding an exercise bike". "Exercise increases blood flow to the brain, releases hormones, stimulates the nervous system, and increases the levels of morphine like substances found in the body that can have a positive effect on mood. Exercise may trigger a neurophysiological high- a shot of adrenaline or endomorphins, that produces an anti - depressant depression,prevent muscle spasm, relieve muscular tension, reduce stress

and improve mental health . These aerobic exercises have three sequential sessions such as warm up ,work out and cool down **(www.livestrong.com, 2011**).

prescription drug a way to deal with anxiety because it fools the body into thinking it is either fighting or fleeing . During exercise, body engages in intense activity that puts those chemicals and increases blood flow to good use. Body, in general and brain in particular, receive a high dose of oxygen which helps reduce tension in the body and muscles, making more relaxed and calm. Physical activity is defined as any bodily movement that results in energy expenditure. Exercise is a subset of physical activity and is defined as "planned, structured and repetitive bodily movement done to improve or effect in maintain one or more components of physical fitness" **(Caspersen, Powell, and Christenson,2005).**

4. STUDIES RELATED TO THE EFFECT OF AEROBIC EXERCISE ON ANXIETY AMONG ALCOHOL DEPENDENT PATIENTS

Egil.w Martinsen and Leir and Ole Bjorn (2009)conducted an explorative study to determine the effect of aerobic exercise on

anxiety among non-psychotic alcohol dependent patients. All eighty nine patients took part in aerobic exercise for 8 weeks and took part for atleast 1 hour five times a week. Degree of mental distress (anxiety disorder) was measured by the symptom rating scale (SRT), physical work capacity (PWC) was calculated from a Submaximal Bicycle Ergo meter Test. Results indicated that 65 percent of respondents exercise regularly and regular exercise habits were most strongly associated with low SRT score at follow up . Patients retrospectively ranked physical aerobic exercise as the most important component in the treatment programme .

Mattew P Herring et al (2008) conducted a systematic review to determine the effects of aerobic exercise on anxiety .Literature review was done from the Physical Activity Guidelines for American Scientific data base ,supplemented by additional searches through December 2008 of the following data base: Google scholar, Medline, Psych info, Pub Med and web of science. Articles were reviewed from January 1995 to august 2007. They included both an anxiety outcome measured at base line and after exercise training and random alignment to either an exercise intervention of three or more weeks or a comparison condition that lacked exercise. Results shown that exercise training reduces anxiety symptoms among sedentary patients who have a chronic illness.

P.Devi (2004) conducted an experimental study to determine the effectiveness of aerobic exercise on anxiety among patients with alcohol dependence, admitted at De-addiction cum Rehabilitation centre at Valarsarvakkam in Chennai. Forty patients with alcohol dependence were taken in Dr. AJ.Dorr Hospital at de-addiction centre.

Methods used for this study was technique by lottery method using State Trait Anxiety Inventory Scale. Results have shown that after receiving aerobic exercise in the control group, the patient score - 32(80%) were in moderate level of anxiety and eight (20%) had mild level of anxiety. In the post test, 28(70%) had mild level of anxiety and 12(30%) were in the normal level.effect in some, an anti-anxiety effect in others and a general sense of feeling better in most . (**Michael H. Sacks2007.)**

Jennifer P (2008) in New York, reported the effect of aerobics on fifty eight adult participants receiving the inpatients alcoholic rehabilitation treatment. The result revealed that these subjects demonstrated better abstinence than non-exercising subjects of other two groups. It also has the significant improvement in the negative emotion factor such as stress, anger, anxiety, depression and confusion.

Donoghy and Mutric (2006) in the United states of America reported a randomized controlled trail of hundred and seventeen problem drinkers and concluded that there was a good evidence that structured three weeks aerobic exercise program followed by a twelve week home based program was beneficial in improving physical fitness and strength, significant reduction in anxiety, depression and Psychological perception of self work.

Colling Wood (2006), evaluated the effect of eight weeks of aerobic exercise programme on anxiety among alcohol dependent patients in Substance Abuse Residential Treatment Centres of U.S.A. The results reported that there is a significant improvement in the negative emotion factors such as anxiety, anger, stress, depression and confusion. The result suggests that aerobic exercise was associated with improved mood and may be a useful way of reducing anxiety during inpatient psychiatric treatment.

Core and Oak (2010) explored a study in Japan on the effect of aerobic exercise on anxiety among 95 alcohol dependent patients and the result shown that aerobic exercise was effective in lowering the anxiety level and increasing self-esteem of patients with alcohol dependence.

CHAPTER 3

RESEARCH METHODOLOGY

This chapter includes research approach, research design, setting, population, sampling size, sampling technique, and criteria for selection of the sample, description of tools, testing the tools, pilot study, data collection, and protection of subject rights.

Statement of the problem:

A study to assess the effectiveness of aerobic exercise on reduction of anxiety among an alcoholic dependence in selected De addiction centre at Madurai.

Research approach :

Quantitative approach was used for this study.

Research design:

Pre experimental research design that is one group pre test post test design was used in this study.

O_1	X	O_2

O1 - Pretest level of anxiety.

X - Intervention (aerobic exercise).

O2- Post test level of anxiety.

Setting of the study

The study was conducted in two de-addiction centers at Madurai. The two de-addiction centers are namely, Trishul De-addiction and After Care, Centre in K.K. Nagar at Madurai which is run by Chellamuthu Trust and Swasham De-addiction Center which are located at Aanaiyoor .

STRENGTH OF THE DE-ADDICTION CENTRE

Trishul De-addiction and After Care Centre

Total Strength -40 beds.

Aanaiyoor De-addiction Centre.

Total strength -20 beds.

INFRASTRUCTURE

Trishul De-addiction and After Care Centre in K.K. Nagar at Madurai is located at the centre of the city. Each room consists of 10 beds. This de-addiction centre has good physical facilities like large size halls for exercise, drinking water supply and toilet facilities. All the four rooms are well ventilated and are under close supervision of the staff nurses and supportive staff.

Swasham De-addiction Centre is located in Aanaiyur which is located in the extension area .All the physical facilities are similar to that of Trishul De-addiction and After Care, Centre in K.K. Nagar at Madurai.

Population :

The population of the study consisted of alcoholic dependence.

Sample :

Alcohol dependence those who have anxiety in selected de addiction centers at Madurai.

Sample size :

Sample size was 60 who fulfill the inclusion criteria was selected for the study.

Sampling techniques :

Purposive sampling technique was used.

Criteria for sample selection ;

The sample was selected based on the following inclusion and exclusion criteria.

Inclusion criteria :

- Alcohol dependence who were willing to participate in this study.
- Alcohol dependence with anxiety .
- Alcohol dependence with maintenance therapy.
- Those who could read and understand Tamil and English.

Exclusion criteria:

- Those who are not willing to participate.
- Alcohol dependence with other mental disorder.
- Alcohol dependence with cardiac disease or unfit to do aerobic exercise.

Description of tool :

The research tool had two sections .

Part 1

This tool consisted of demographic variables such as age , education, marital status family income , occupation, type of family

,types of residence, duration of stay, duration of consumption of alcohol , type of alcoholic beverages , amount of alcohol consumption in a day for past one month, factors causing anxiety.

Part 2

Hamilton anxiety scale was used to detect the anxiety level among alcoholic dependence .It is a four point likert scale which was assessed the anxiety level . normal score = 0 – 17 , mild anxiety = 18 – 24 , moderate anxiety = 25 -29, severe anxiety =<30.

Testing of the tool

Validity & Reliability

For demographic variable tool, the content validity was obtained from 5 experts from nursing and medical field. The Hamilton anxiety scale internal consistency and a reliability coefficient.

Reliability:

Stability of the scale was very good,with a correlation of 0.96.

Intervention:

Samples are divided into 6 groups consisting of 10 samples in each group.

Aerobic exercise involves three phases.

- Warming up phase
- Comprehensive phase
- Cooling down phase

1. Warming up phase:

In this phase, only per formation of warm up drills alone such as jumping and skipping for about five minutes etc

2. Comprehensive Phase:

It lasts for about thirty minutes. In this phase, all the strenuous movements will be performed.

Cooling down Phase:

Put on some slow beat music, the subject can also perform some of the warming up movements.

AEROBIC EXERCISE ROUTINES

Aerobic exercise routines involve three phases. It starts with warming-up and then goes through a strenuous movement phase. The final stage is the cooling-down phase. Aerobic exercise, when done in

this standard way, increases oxygen intake of the body. This is a key factor in staying healthy and fit.

According to fitness experts, aerobic exercises should be performed at moderate levels in extended period of time. A typical aerobic exercise routine involves three phases, warming up, intensive movements and cooling down. Here is a brief description of all the three stages of an aerobic exercise session.

WARMING-UP PHASE

Warming up is necessary before any strenuous activity, as it stretches and loosens the body muscles. Warming-up prevents from muscle cramps, muscle fatigue and injuries due to sudden jerk. The subject can warm up the body in several ways.

COMPREHENSIVE PHASE

The comprehensive phase should last for about thirty minutes. Put on preferred fast beat music. Repeat the below-mentioned movements to a count of six. The first movement is, step with your left foot, bend and try to touch the ground with the toe of the right foot. Do it alternatively as well. The second movement is to step the left foot, bend forward and touch the ground with the heel of the right foot. Do this movement

alternatively. Step the left foot and raise the right foot and do it alternatively. The other aerobic movements involve moving four steps forward, backward and on the sides. Repeat this movement to a count of eight. Raise the arms towards the ceiling and bring them back down. Repeat this movement for a count of ten. Jump up and down for a few minutes. All these movements increase the heart beat, which itself raises the oxygen consumption. Physical activities such as swimming, rope-skipping and cycling are other examples of aerobic exercises. When the subjects have been sweating for about ten minutes, then the participants are ready to start with the final phase of the aerobic exercise routine.

COOLING-DOWN PHASE

Put on some slow beat music. Raise the arms up and inhale. Bring the arms down and exhale. Repeat this movement for a count of five. The subject can also perform some of the warming-up movements. It would relax the ck down. Repeat this movement for a count of ten. Jump up and down for a few minutes. All these movements increase the heart beat, which itself raises the oxygen consumption. Physical activities such as swimming, rope-skipping and cycling are other examples of aerobic exercises. When the subjects have been sweating for about ten

minutes, then the participants are ready to start with the final phase of the aerobic exercise routine.

PILOT STUDY

In order to test the feasibility, relevance and practicability of the study, a pilot study was conducted among 6 alcohol dependence with anxiety in a de-addiction centre at Madurai. The study was conducted in a manner in which the final study would be done. It revealed that the study was feasible. Data were analyzed to find out the suitability of the statistical method.

Data collection procedure :

The data collection was done for five weeks in two selected de addition centers of Madurai district. Before conducting the study researcher obtained a formal written permission to conduct the study , from the director of Chella Muthu de addiction centre and swasham de addiction centre , Madurai district and from the dissertation committee of Matha college of nursing, Manamadurai. Researcher obtain a verbal consent from the study participants . Hamilton anxiety scale was used to assess the level of anxiety among alcohol dependent patients , 60 samples with anxiety were selected for the study in Trishul and Swasham de

addiction centre. Approximately 10 minutes was taken to complete the assessment on each individual. There were 3 sessions(in each session one single group was involved in aerobic exercise).each session progressed through 3phases ,nearly 45 minutes had been taken for the completion of each session .after 3 weeks of intervention post test was conducted .

Data analysis:

The data analyzed using both descriptive and inferential statistics.

Descriptive statistics:

1. Frequency, percentage distribution was used to analyze the demographic variable.
2. Mean and standard deviation was used to assess the level of anxiety among an alcoholic dependence.

Inferential statistics:

1. Student paired t test was used to find out the effectiveness of Aerobic exercise.
2. Chi-square test was used to find out the association between the demographic variables and the pre test level of anxiety.

Protection of human subjects

The dissertation committee was approved the research proposal prior to pilot study and main study. Permission was obtained from Head of the department of psychiatric nursing, Matha College of nursing, Manamadurai. And from higher authority of Matha college of nursing at Sivagangai Verbal and written Permission was obtained from the Trishul de addiction center and Swasham de addiction center for authorities. And study subject's data collection kept confidential. Assurance was given study subjects that anonymity of each individual was maintained.

pCHAPTER IV

DATA ANALYSIS AND INTERPRETATION OF DATA

This chapter deals with the descriptive and inferential analysis of the data collected from 60 samples to determine the effectiveness of aerobic exercise on reduction of anxiety among an alcoholic dependence in selected de addiction centers at Madurai.

Analysis is a process of organizing and synthesizing data in such a way that research questions can be answered and hypothesis tested (Polit and Hungler 2012).

This chapter deals with the description of the samples, analysis and interpretation of the data collected and achievement of the objectives of the study.

OBJECTIVES OF THE STUDY:

- To assess the pre test level of anxiety among alcoholic dependence residing in de addiction centers at Madurai.
- To assess the post test level of anxiety among alcoholic dependence residing in de addiction center.

- To find out the effectiveness of aerobic exercise in post test level of anxiety among alcoholic dependence residing in de addiction centers at Madurai.
- To associate mean pre test level anxiety among alcoholic dependence with their selected demographic variables.

ORGANIZATION OF THE DATA:

The analysis and interpretation of data are presented tabulation and statistical form under the following sections.

SECTION A : Distribution of samples based on their selected demographic variables.

SECTION B : Distribution of samples based on their level of anxiety in pre-test and post-test score.

SECTION C : Evaluate the effectiveness of aerobic exercise on reduction of anxiety among the samples.

SECTION D : Association between pre -test level of anxiety among alcohol dependence in selected demographic variables

SECTION – I

Table 2:

Frequency and percentage sample distribution of alcohol dependence based on their demographic variables. N=60

S.NO	DEMOGRAPHIC VARIABLES	F	%
1	Age in years		
	a) 20-30 years	20	33.3
	b) 31-40 years	22	36.7
	c) 41-50 years	13	21.7
	d) 51-60 years	05	8.3
2	Religion		
	a) Hindu	51	85
	b) Others	9	15
3	Educational status		
	a) Illiterate	19	31.7
	b) Primary	07	11.7
	c) High school / Hr. secondary	17	28.3
	d) Diploma / Graduate	17	28.3

4	Occupation		
	a) Student	02	3.3
	b) Coolie	25	41.7
	c) Business man	16	26.7
	d) Private employees	12	20
	e) Government employees	05	8.3
5	Marital status		
	a) Single	07	11.7
	b) Married	20	33.3
	c) Divorced / separated	22	36.7
	d) Widower	11	18.3
6	Income of the family		
	a) Rs.3000-5000	35	58.3
	b) Rs.5001-7000	14	23.3
	c) Rs.7001-9000	04	6.7
	d) Above Rs.9000	07	11.7
8	Place of Residence		
	a) Rural	33	55
	b) Urban	27	45

9	Duration of stay a) Less than one month b) One month c) One month -3 month	 59 01 0	 98.3 1.7 0
10	Duration of consumption a) 3-5 years b) 6-8 years c) 9-11 years d) Above 11 years	 29 23 08 0	 48.3 38.3 13.3 0
11	Type of alcoholic beverage a) Arrack b) Ethyl alcohol c) Indian made foreign liquor	 0 01 59	 0 1.7 98.3
13	Factors causing anxiety a) Fear about well being without alcohol b) Withdrawal of alcohol c) Treatment plans d) Financial	 13 20 0 27	 21.7 33.3 0 45

Figure:1

Frequency percentage sample distribution related to Age:

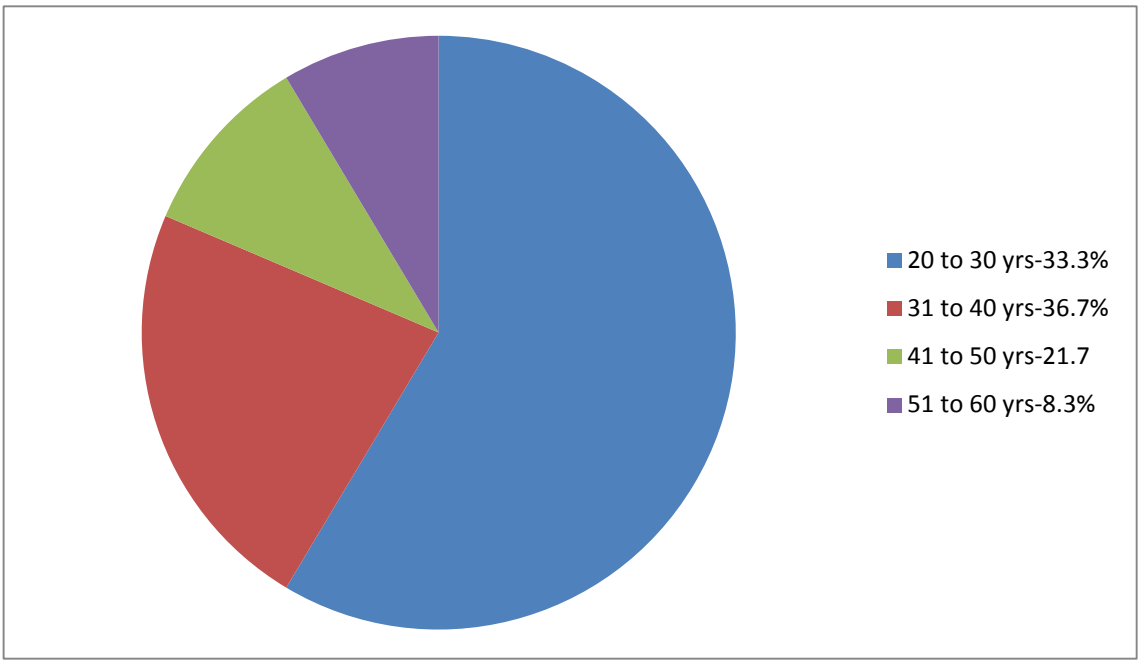
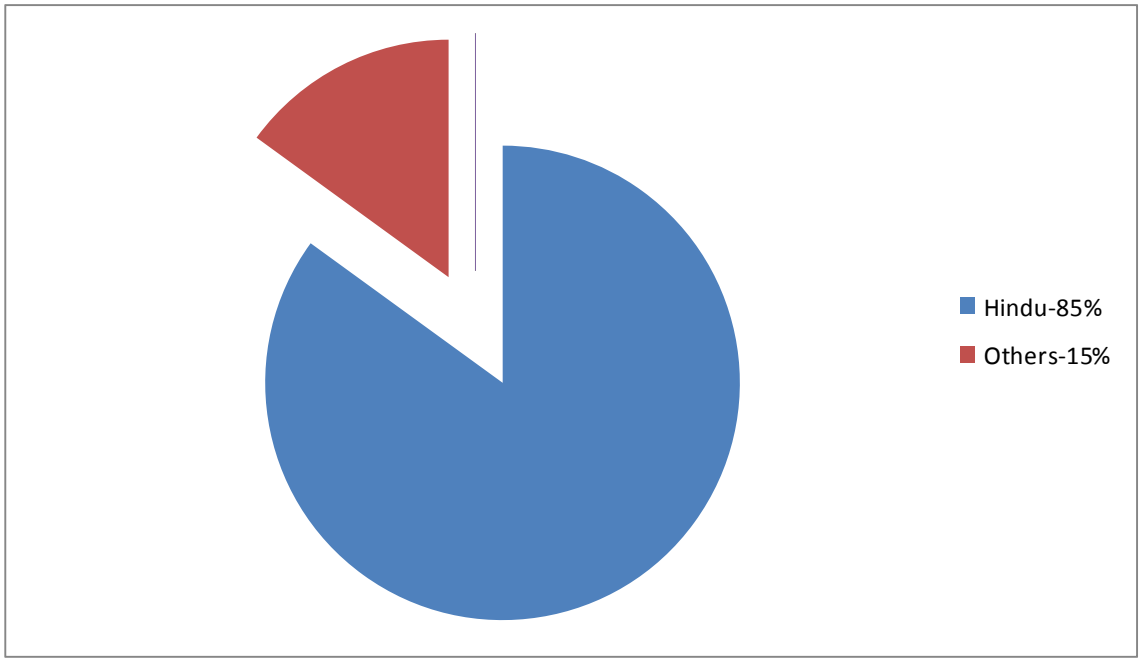


Table 2 predicts that, Majority of the samples 20(33.3%) belonged to the age group of 20-30 years and 22(36.7%) samples belonged to the age group of 31-40 years.

Figure:2

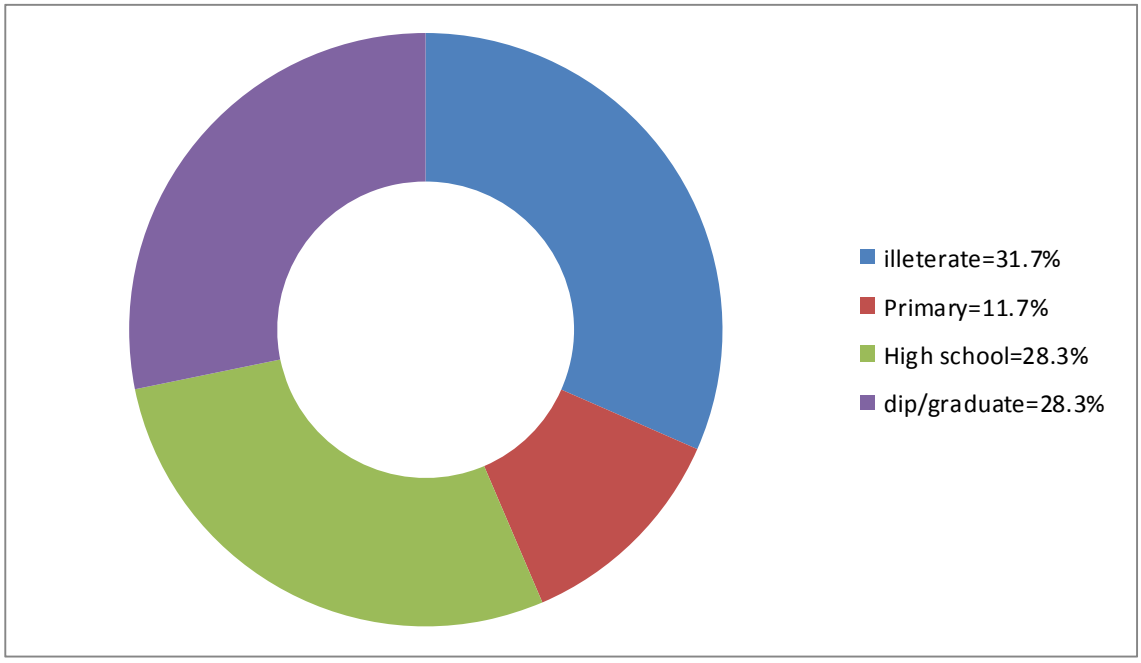
Frequency percentage sample distribution related to religion:



Regarding the groups majority of the samples were Hindus by religion 51(85.0%) in 60 samples,9(15%) were other religion.

Figure:3

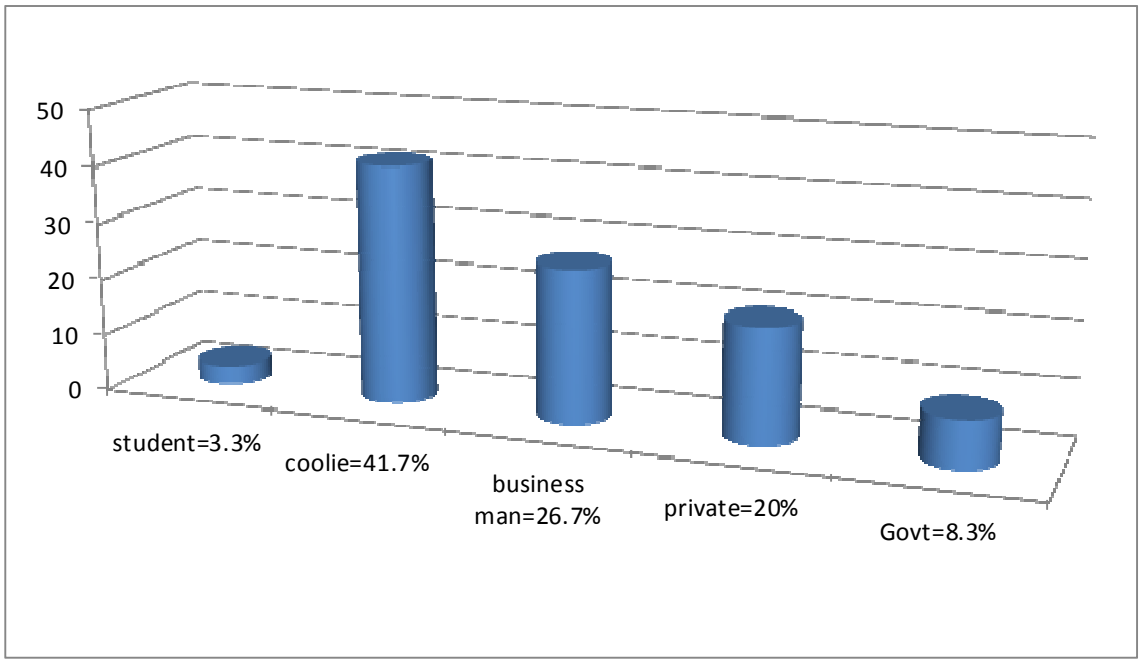
Frequency percentage sample distribution related to educational status:



Regarding the educational status, majority19 (31.7%) of the samples had illiterate 7(11.7%) of samples had primary education and 17(28.3%)of samples had high school / higher secondary education ,the 17(28.3%) of the samples had Diploma and graduate.

Figure:4

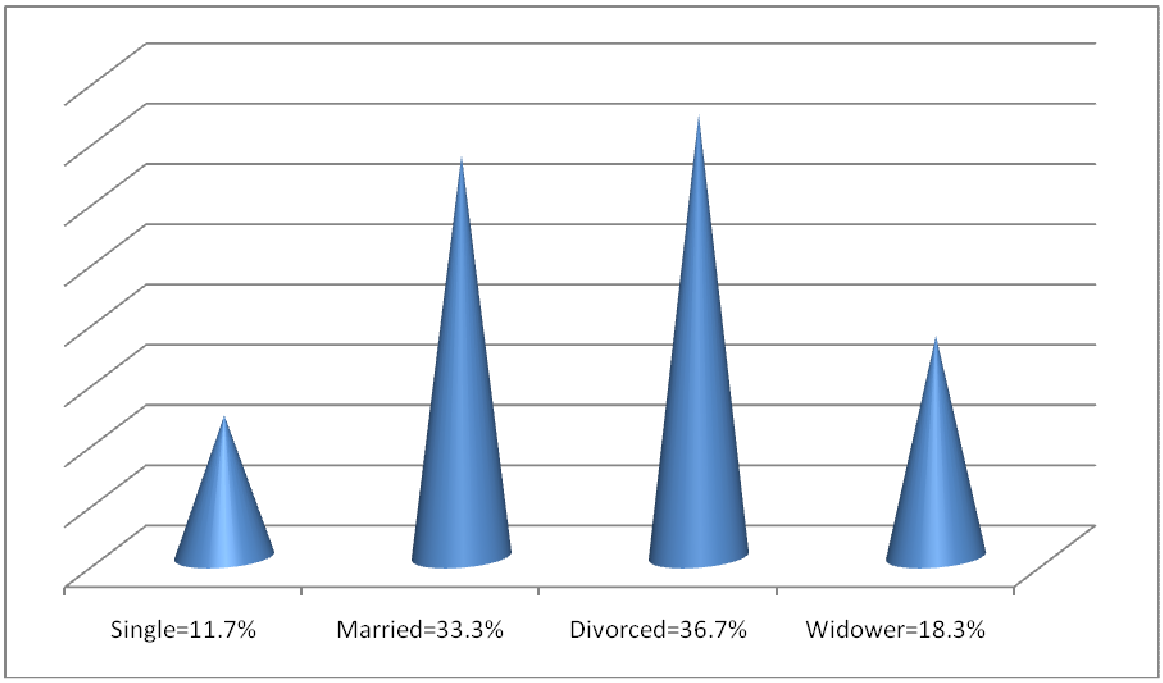
Frequency percentage sample distribution related to occupation:



Regarding the occupational status, majority 25(41.7%) of the samples from were coolie and16 (26.7%)were business man12,(20%) were private employees.

Figure:5

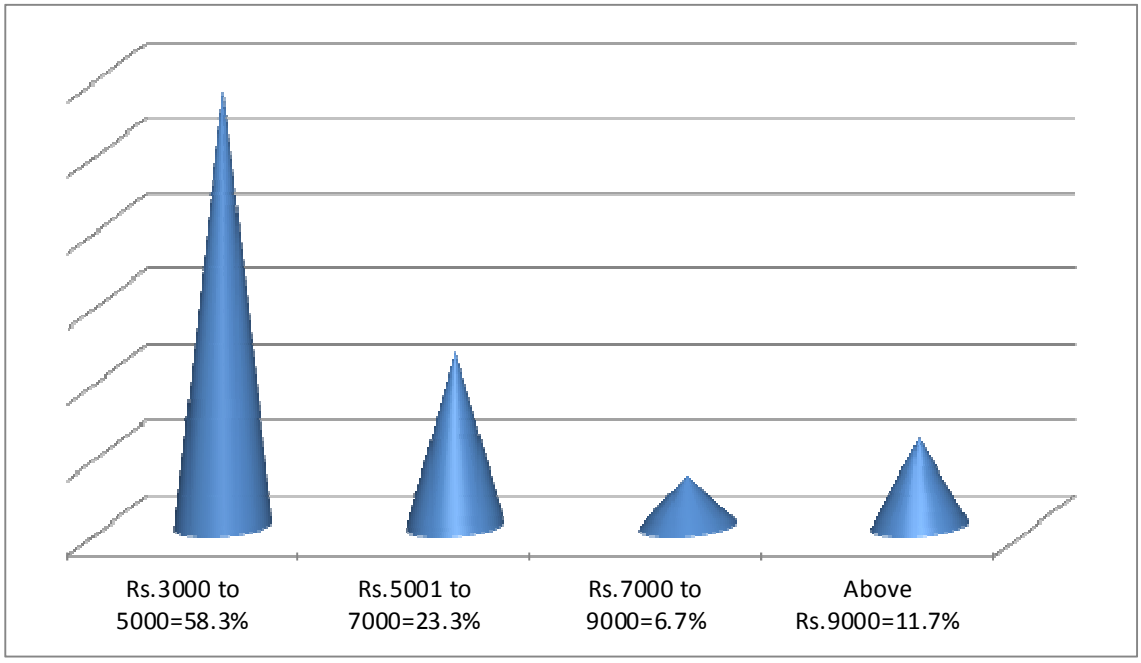
Frequency percentage sample distribution related to marital status:



Regarding marital status, 7(11.7%) single and 20(33.3%) married ,majority of 22(36.7%)divorced or separated whereas in the 60 samples, 11(18.3%) of them widower

Figure:6

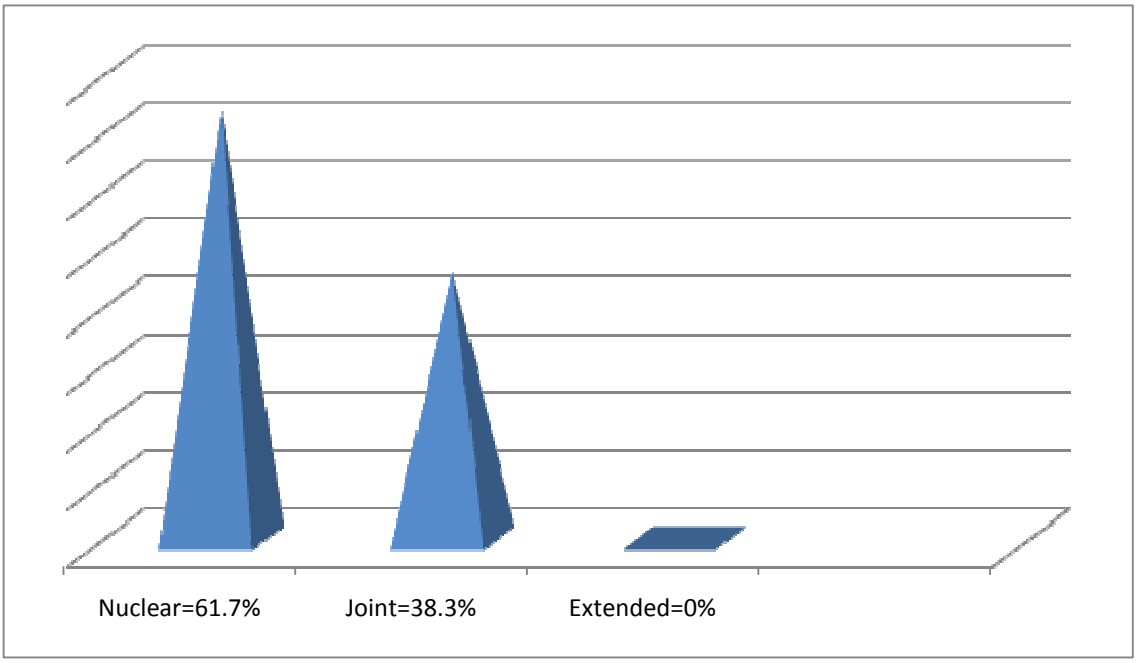
Frequency percentage sample distribution related to family income:



Regarding the family income, majority35 (58.3%) of the samples in the had an income of Rs. 3001-57000, whereas in the 14(23.3%) had an income of Rs. 5001-7000.

Figure:7

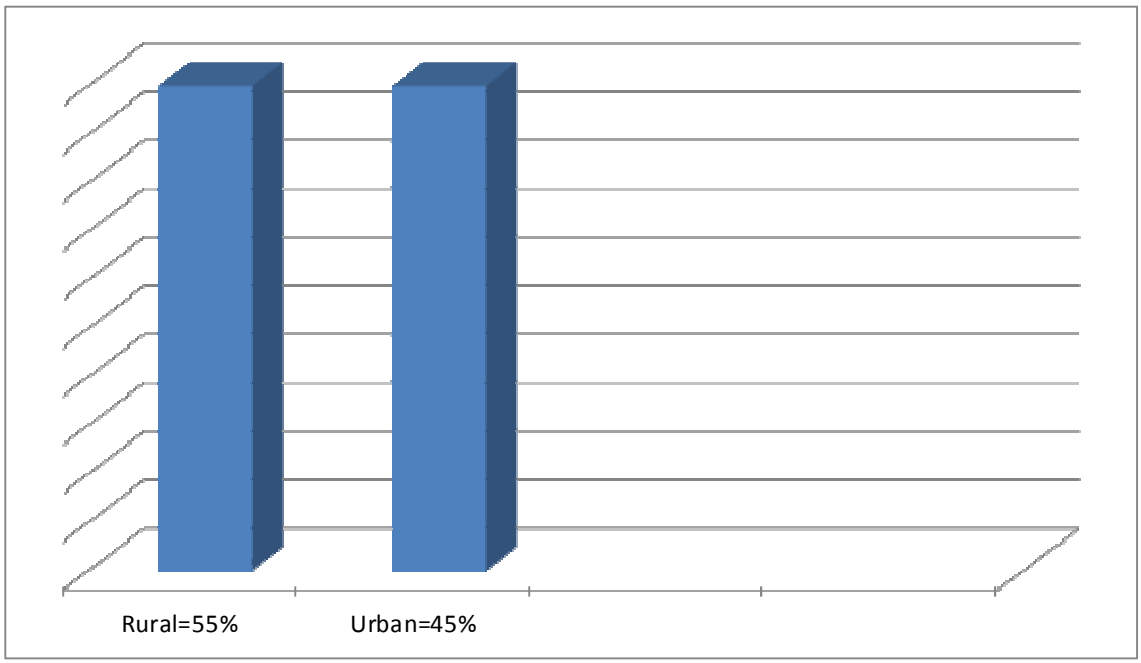
Frequency percentage sample distribution related to type of family:



Regarding the type of family, majority 37(61.7%) of them were from nuclear family in the group, 23(38.3%) of them were in the joint family.

Figure:8

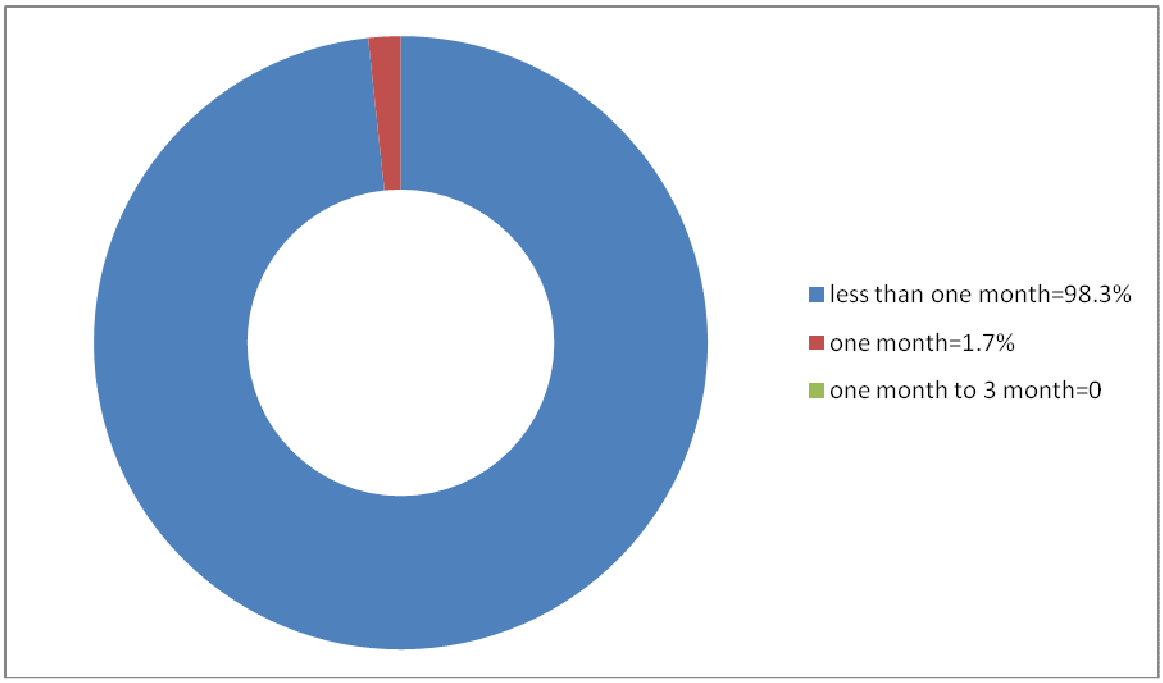
Frequency sample percentage distribution related to place of living:



Regarding the place of residence, majority of the samples were from rural areas and in the as 33(55%) and 27(45 %) were from urban areas respectively.

Figure:9

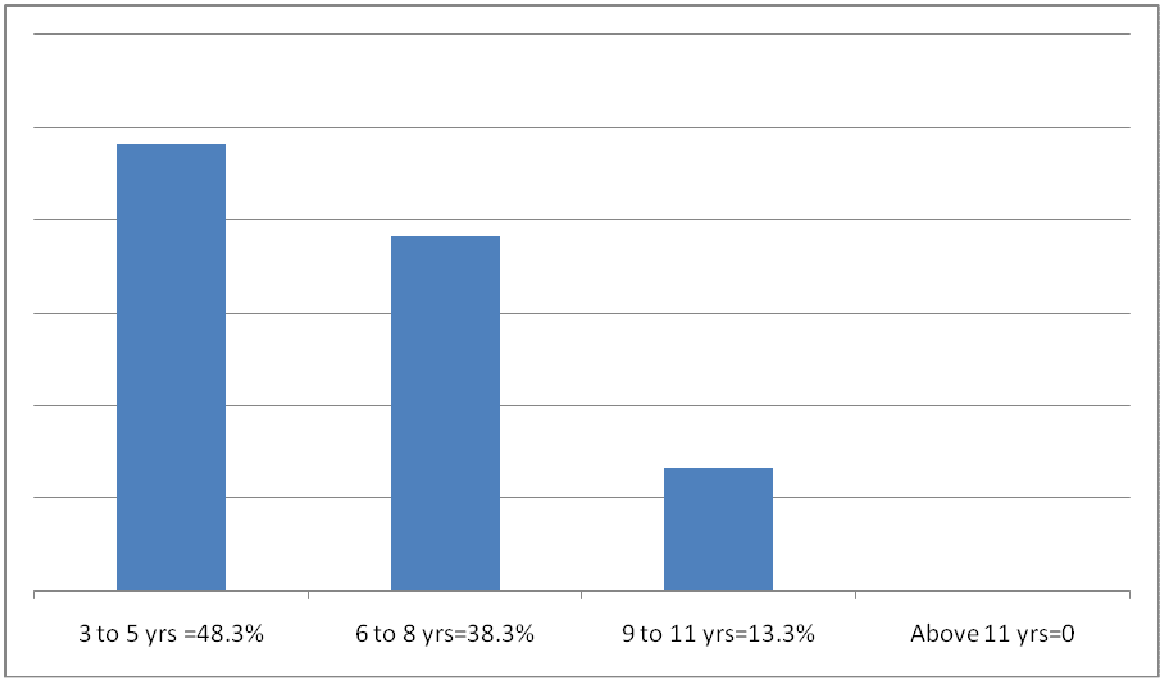
Frequency percentage sample distribution related to duration of stay:



Regarding the duration of stay, majority59 (98.3%) of the samples were staying for less than one month whereas1 (1.7%) of the samples were staying than one month .

Figure:10

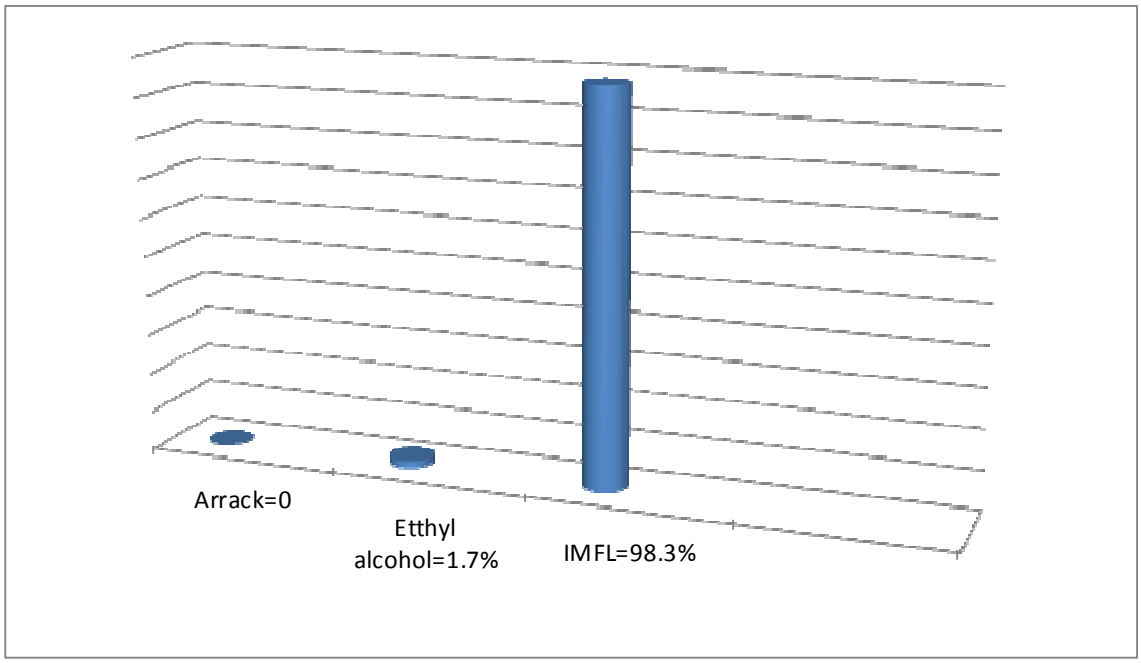
Frequency percentage sample distribution related to duration of consumption of alcohol:



Regarding the duration of consumption of alcohol, majority 29(48.3%) of the samples were consuming alcohol for 3-5years and whereas in, 23(38.3.3%) were consuming alcohol for 6-8 years.

Figure:11

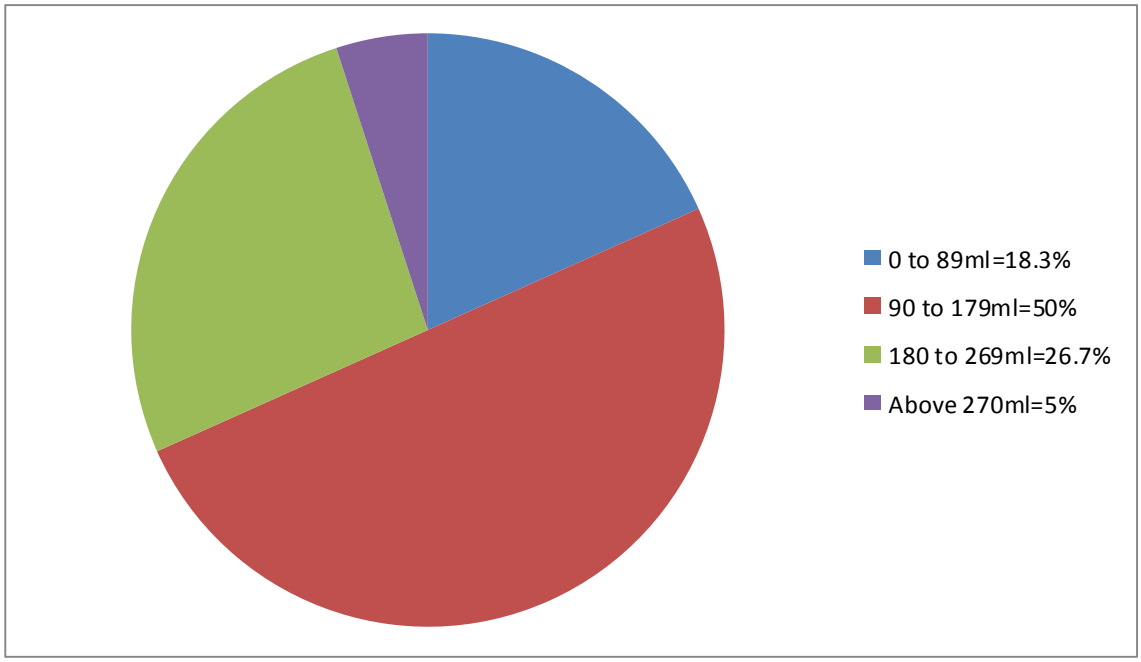
Frequency percentage sample distribution related to type of alcoholic beverage:



Regarding the types of alcoholic beverages, majority of them were taking Indian made foreign liquor both in the 59(98.3%) and 1(1.7%) respectively.

Figure:12

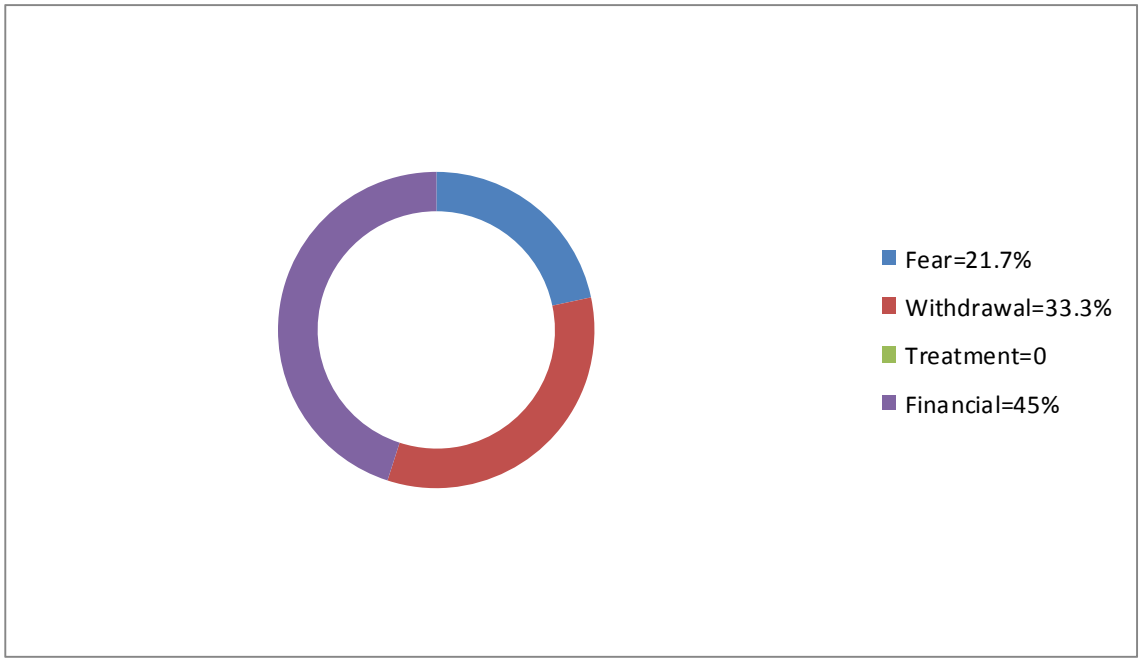
Frequency percentage sample distribution related to amount of alcohol consumption in a day for the past one month:



Regarding the amount of alcohol consumption in a day for the past one month, majority of them 30(50%) were taking 90ml-279ml and16 (26.7%) of them were taking 180-296ml.

Figure:13

Frequency percentage sample distribution related to factor causing anxiety:



Regarding the factors causing anxiety, majority 27(45%) of them experienced anxiety due to financial factors 20(33.3%) of them experienced anxiety due to about withdrawal behavior.

SECTION II

This section deals with the frequency and percentage distribution of samples based on the level of anxiety of the samples**:**

S.NO	LEVEL OF ANXIETY	PRE TEST		POST TEST	
		N	%	N	%
1	Normal	-	-	57	95
2	Mild anxiety	11	18.3	3	5
3	Moderate anxiety	19	31.7	-	-
4	Severe anxiety	30	50	-	-

Table:2 statistically predicts the distribution of alcohol dependent patients according to the level of anxiety before and after manipulation.

Among the pre test, majority 30(50.0%) of the samples experienced severe anxiety and 19(31.7%) experienced moderate anxiety and 11(18.3%) of them experienced mild anxiety. Post test, majority 57(95%) of the samples experienced normal level and 3 number of samples (5%) experienced mild anxiety.

Figure:14

Frequency percentage sample distribution related to level of anxiety in pre and post test:

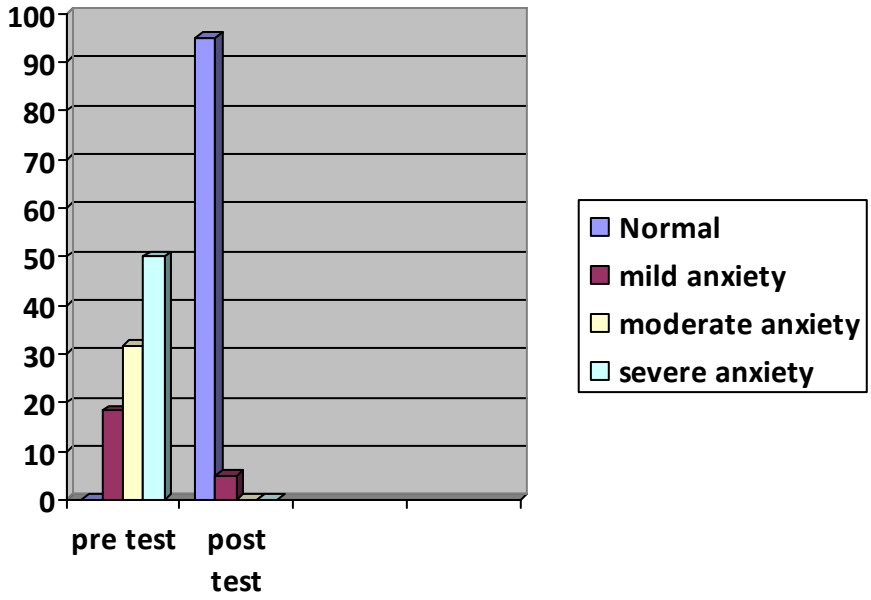


Table 3:

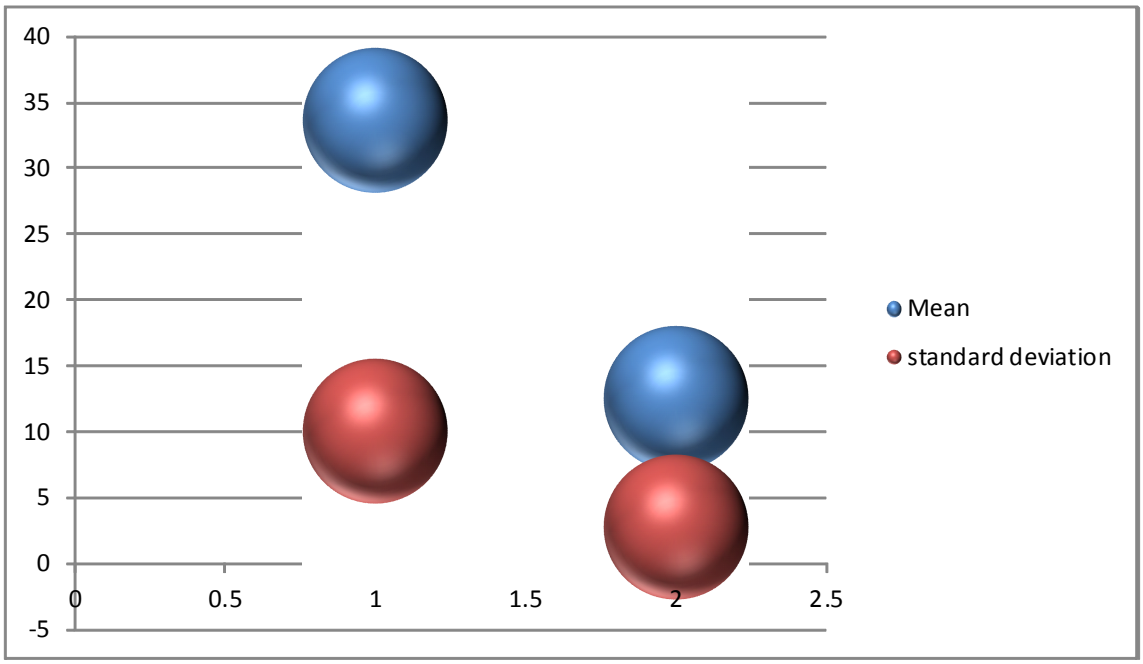
Comparison of the level of anxiety before and after aerobic exercise in the samples:

N=60

Variable	Mean	MD	SD	T. Value	P. Value
Pre test	33.70		10.150		
		21.066		23.34	0.05
Post test	12.633		2.899		

Figure:15

Frequency percentage distribution related to comparison of level of anxiety before and after aerobic exercise.



To compare the mean pre test and post test level of anxiety of the alcohol dependent patients, the null hypothesis was stated as follows

There was significant difference between the pre test and post test anxiety score at 0.05 level of significance.

The hypothesis was tested using paired 't' test method.

Table 5 portrays that the mean post test anxiety score (12.63%) was less than the mean pre test anxiety score (33.70%). The obtained 't' value 23.34 was statistically highly significant at 0.05 level. This illustrates that the mean difference of (21.06)%)was true difference and has not occurred by chance. Therefore the researcher rejects the null hypothesis and accepts the research hypothesis.

SECTION:2

Table 8:

Association between the pre test level anxiety and demographic variables of the alcohol dependence .

N = 60

Serial no	Demographic variables	Level of anxiety			Chi sqare	
		Mild anxiety	Moderate Anxiety	Severe anxiety	Table value	Calculate t-value
1	Age					
	a) Below 30	2	2	16		
	b) 31-40 years	4	6	13	20.688*	2.45
	c) 41-50 years	5	2	0		
	d) Above 51 years	0	4	6		
2	Religion					
	a) Hindu	0	1	8	4.487*	2.78
	b) Others	11	13	27		
3.	Educational status					
	a) Illeterate	5	5	8		
	b) Primary	0	2	6		
	c) Higher secondary				4.486*	2.45
	school	4	3	10		
	d) Diploma	2	4	11		

4.	Occupation					
	a) Student	0	0	2		
	b) Coolie	5	7	13	3.899*	
	c) Business	3	2	11		2.31
	d) Private company	2	3	7		
	e) Government	1	2	2		
5	Marital status					
	a) Single	0	0	7	24.973*	2.447
	b) Married	6	2	12		
	c) Divorced/separated	3	4	15		
	d) Widower	2	8	1		
6	Income					
	a) Rs.3000-5000	6	9	20		
	b) Rs.5001-7000	3	3	8	0.882	2.44
	c) Rs.7001-9000	1	1	2		
	d) Above Rs.9000	1	1	5		
	Type of family					
7	a) Nuclear	7	7	19		
	b) Joint	4	7	13	2.817	2.78

8	Place of residence a) Rural b) Urban	 4 7	 9 5	 20 15	2.096	4.303
9	Duration of stay a) Less than one Month b) One month c) One month-3 month	 10 1 0	 14 0 0	 35 0 0	4.530*	4.303
10	Duration of consumption of alcohol a) 3-5years b) 6-8years c) 9-11years d) Above 11 years	 5 4 2 0	 3 9 2 0	 21 10 4 0	6.741*	2.78
11	Type of alcohol a) Arrack b) Ethyl alcohol c) Indian made foreign liquor	 0 0 11	 0 0 14	 0 1 33	1.478	2.78

12	Amount of alcohol a) 0-89ml b) 90-179ml c) 180-269ml d) Above 270ml	 2 6 2 1	 0 7 6 1	 9 18 7 1	 6.791*	 2.447
13	Causative factors a) Fear about well being without alcohol b) Withdrawal of alcohol c) Treatment plans d) Financial	 0 3 0 8	 6 3 0 5	 8 14 0 13	 4.478*	 4.303

To find out an association between the pre test level of anxiety and demographic variables of the alcohol dependence.

The null hypothesis was stated as follows:

There was significant association between pre test level of anxiety and selected demographic variables.

Table 8 depicts that there was a statistically significant association between pre test level of anxiety and age (χ^2 2.45*), religion (χ^2 2.78), education (χ^2 2.45), marital status (χ^2 2.447) , occupation (χ^2 2.31),

duration of stay in the hospital (χ^2 4.303), duration of consumption of alcohol in past one month (χ^2 2.78), amount of alcohol consumption ($\chi^2$2.447) and factors causing anxiety (χ^2 4.303*) at 0.05 level of significance. Therefore the researcher rejects the null hypothesis and accepts the research hypothesis.

CHAPTER-V

DISCUSSION

Anxiety is a psychological and physiological state characterized by somatic, emotional, cognitive and behavioural components. It is the displeasing feeling of fear and concern.

The aim of the study was to evaluate the effectiveness of aerobic exercise on anxiety among alcohol dependence in selectedde- addiction centres of Madurai.

The study findings are discussed in this chapter with reference to the objectives and hypotheses stated in chapter -1

Distribution of samples with regards to demographic variables

, Majority of the samples 20(33.3%) belonged to the age group of 20-30 years and 22(36.7%) samples belonged to the age group of 31-40 years. Regarding In the groups majority of the samples were Hindus by religion 51(85.0%) in 60 samples,9(15%) were other religion.

Regarding the educational status, majority19 (31.7%) of the samples had illiterate 7(11.7%) of samples had primary education and

17(28.3%)of samples had high school / higher secondary education ,the 17(28.3%) of the samples had Diploma and graduate.

Regarding the occupational status, majority 25(41.7%) of the samples from were coolie and16 (26.7%)were business man12,(20%) were private employees.

Regarding the marital status, 7(11.7%) single and 20(33.3%) married ,majority of 22(36.7%)divorced or separated whereas in the 60 samples, 11(18.3%) of them widower.

Regarding the family income, majority35 (58.3%) of the samples in the had an income of Rs. 3001-57000, whereas in the 14(23.3%) had an income of Rs. 5001-7000.

Regarding the type of family, majority 37(61.7%) of them were from nuclear family in the group, 23(38.3%) of them were in the joint family.

Regarding the place of residence, majority of the samples were from rural areas and in the as 33(55%) and 27(45 %) were from urban areas respectively.

Regarding the duration of stay, majority59 (98.3%) of the samples were staying for less than one month whereas1 (1.7%) of the samples were staying than one month .

Regarding the duration of consumption of alcohol, majority29(48.3%) of the samples were consuming alcohol for 3-5years and whereas in, 23(38.3.3%) were consuming alcohol for 6-8 years.

Regarding the types of alcoholic beverages, majority of them were taking Indian made foreign liquor both in the 59(98.3%) and 1(1.7%) respectively.

Regarding the amount of alcohol consumption in a day for the past one month, majority of them 30(50%) were taking 90ml-279ml and16 (26.7%) of them were taking 180-296ml..

Regarding the factors causing anxiety, majority 27(45%) of them experienced anxiety due to financial factors 20(33.3%) of them experienced anxiety due to about withdrawal behaviour.

The first objectives of the study were to assess the pretest levelof anxiety among alcohol dependence :

Among the pre test, majority 30(50.0%) of the samples experienced severe anxiety and 19(31.7%) experienced moderate anxiety and 11(18.3%) of them experienced mild anxiety.

The second objectives of the study were to assess the post test level of anxiety among alcohol dependence:

There was a marked improvement in the level of anxiety in alcohol dependence after the aerobic exercise which proves the efficiency of aerobic exercise in reducing anxiety.Statistically predicts the distribution of alcohol dependent patients according to the level of anxiety before and after manipulation.

Among the post test, majority 57(95%) of the samples experienced normal level and 3 number of samples(5%) experienced mild anxiety.

The third objectives of the study were to find out the effectiveness of aerobic exercise on anxiety among alcohol dependence .

There will be no significant difference between the pre test and post test anxiety score at 0.05level of significance.

The hypothesis was tested using paired 't' test method.

Table 5 portrays that the mean post test anxiety score (12.63%) was less than the mean pre test anxiety score (33.70%). The obtained 't' value 23.34 was statistically highly significant at 0.05 level. This illustrates that the mean difference of (21.06)%)was true difference and

has not occurred by chance. Therefore the researcher rejects the null hypothesis and accepts the research hypothesis.

The related evidence for the study are mentioned below**Colling wood(2004)** evaluated the effect of eight weeks of aerobic exercise programme on anxiety among Alcohol dependence in Substance Abuse Residential Treatment Centers of USA. The results reported that there is a significant improvement on the negative emotion factors such as anxiety, anger, stress,depression and confusion. The result suggests that aerobic exercise was associated with improved mood and may be a useful way of reducing anxiety during inpatient psychiatric treatment.

Sineger (2006) in West Indies conducted a study on aerobic exercise on anxiety among 58 participants receiving treatment in alcohol rehabilitation centre and he concluded that there was a reduction in anxiety following the practice of aerobic exercise in alcohol consuming persons.

Marlatt (2008) has suggested that engaging in physical activity might improve alcohol and other substance treatment outcomes because physical activity is an alternative, competing, and pleasurable behaviour, which may provide mood benefits and function as a coping skill in some high-risk situations for relapse.

The fourthobjectives of the study was to associate the pre test level of anxiety with the selected demographic variables of anxiety among alcohol dependence.

There will be no significant association between post test level of anxiety and selected demographic variables.

Table 8 depicts that there was a statistically significant association between pret test level of anxiety and and age (χ^2 2.45*), religion (χ^2 2.78*), education (χ^2 2.45*), marital status (χ^2 2.447*) , occupation (χ^2 2.31*), duration of stay in the hospital (χ^2 4.303*), duration of consumption of alcohol in past one month (χ^2 2.78*), amount of alcohol consumption ($\chi^2$2.447*) and factors causing anxiety (χ^2 4.303*) at 0.05 level of significance. Therefore the researcher rejects the null hypothesis and accepts the research hypothesis.

There was no significant association between the other demographic variables like family income, type of family, type of residence, duration of alcohol consumption, duration of stay, types of alcohol consumption,. Researcher feels that major strength of the study is that this therapy were simple but neglected due to lack of sufficient literature. So this study topic and findings will add new knowledge to the nursing profession.

CHAPTER VI

SUMMARY,CONCLUSION, IMPLICATIONS & RECOMMENDATIONS

This chapter contains the summary of the study and conclusion drawn.It clarifies the limitations of the study and the implications. The recommendations are given for different areas like nursing education, administration and health care delivery system ,nursing practice and nursing research.

MAJOR FINDINGS OF THE STUDY

Majority of the samples 20(33.3%) belonged to the age group of 20-30 years and 22(36.7%) samples belonged to the age group of 31-40 years. Regarding In the groups majority of the samples were Hindus by religion 51(85.0%) in 60 samples,9(15%) were other religion.

Regarding the educational status, majority19 (31.7%) of the samples had illiterate 7(11.7%) of samples had primary education and 17(28.3%)of samples had high school / higher

secondary education ,the 17(28.3%) of the samples had Diploma and graduate.

Regarding theoccupational status, majority 25(41.7%) of the samples from were coolie and16 (26.7%)were business man12,(20%) were private employees.

Regarding the marital status, 7(11.7%) single and 20(33.3%) married ,majority of 22(36.7%)divorced or separated whereas in the 60 samples, 11(18.3%) of them widower.

Regarding the family income, majority35 (58.3%) of the samples had an income of Rs. 3001-57000, whereas in the 14(23.3%) had an income of Rs. 5001-7000.

Regarding the type of family, majority 37(61.7%) of them were from nuclear family in the group, 23(38.3%) of them were in the joint family.

Regarding the place of residence, majority of the samples were from rural areas and in the as 33(55%) and 27(45 %) were from urban areas respectively.

Regarding the duration of stay, majority59 (98.3%) of the samples were staying for less than one month whereas1 (1.7%) of the samples were staying than one month.

Regarding the duration of consumption of alcohol, majority29 (48.3%) of the samples were consuming alcohol for 3-5years and whereas in, 23(38.3.3%) were consuming alcohol for 6-8 years.

Regardingthe types of alcoholic beverages, majority of them were taking Indian made foreign liquor both in the 59(98.3%) and 1(1.7%) respectively.

Regarding the amount of alcohol consumption in a day for the past one month, majority of them 30(50%) were taking 90ml-279ml and16 (26.7 of them were taking 180-296ml.

Regarding the factors causing anxiety, majority 27(45%) of them experienced anxiety due to financial factors 20(33.3%) of them experienced anxiety due to about withdrawal behavior.

There was significant difference between the pre test and post test anxiety score at 0.05 level of significance.

The hypothesis was tested using paired ‘t’ test method.

Table 5portraysthat the mean post test anxiety score (12.63%) was less than the mean pre test anxiety score (33.70%). The obtained ‘t’ value 23.34 was statistically highly significant at 0.05 level. This illustrates that the mean difference of (21.06)%)was true difference and has not occurred by chance. Therefore the researcher rejects the null hypothesis and accepts the research hypothesis.

There is no significant association between the other demographic variables like, family income, type of family, type of residence, types of alcohol consumption.

IMPLICATION FOR NURSING

Nursing practice:

- The study findings revealed the importance of nurse, role in managing anxiety among alcohol dependent patients by using aerobic exercise which is cost-effective, safe, and non-pharmacological treatment.

- Study findings signify the importance of formulation of guidelines and implementation of aerobic exercise especially inde-addiction centres where literature reveals lack of psycho therapeutic intervention.
- Nurses, specializing in psychiatry, need to be empowered in administering aerobic exercise.
- In clinical areas there must be provision for administering aerobic exercise.

NURSING EDUCATION:

- ✓ Aerobic exercise can be included asde-addiction care in nursing curriculum
- ✓ Post graduate nursing students specializing in psychiatry should be trained in administering aerobic exercise therapy.
- ✓ Nurse educators should enhance nursing students by reducing their anxiety with aerobic exercise.
- ✓ Students should be periodically evaluated for their anxiety level in personal and professional interaction.

- ✓ A considerable amount in the budget can be allocated for organizing the continuing nursing education programme and training in aerobic exercise.

NURSING 1RESEARCH

The finding of the present study has added knowledge to the already existing literature and the implications for the nursing research are given in the form of recommendation. This study can be a base line for future studies to build upon and motivate other investigators to conduct further studies.

NURSINGADMINISTRATION:

- ➢ The administrations can encourage the nurses to use different cost effective, safe psychotherapeutic intervention in reducing anxiety among alcohol dependence patients.
- ➢ Nursing personnel working in de-addiction wardand psychiatric ward should be given in service education

regarding significanceof aerobic exercise in reducing anxiety.

- A staff nurse can be trained specially to administer aerobic exercise.
- The administration can arrange seminars on anxiety.

RECOMMENDATIONS

On the basis of the present study the following recommendations have been made for further studies.

- A descriptive study can be undertaken to determine the level of anxiety and different anxiety disorders among alcohol dependent patients.
- A longitudinal study can be undertaken to see the long term effect of aerobic exercise in reducing the level of anxiety.
- A similar study can be done in various other settings with large samples.
- A qualitative approach can be applied in studying the effects of aerobic exercise on anxiety.

CONCLUSION

These findings of the study have been discussed in terms of the objectives, theoretical base and hypothesis.Most of the alcohol dependence in selected de-addiction centers suffered from anxiety.Aerobic exercise was effective in reducing the level of anxiety among the alcohol dependence in the de-addiction centers.The findings indicate that aerobic exercise can be administered to all the groups of psychiatric patients in reducing the level of anxiety.

BIBLIOGRAPHY

- Loes A. Marquenie., Annemiek Schadé., Anton J.L.M., van Balkom Hannie C. Comijs., Ron de Graaf., Wilma Vollebergh., Richard van Dyck., Wim van den Brink., (2007) Origin of the Comorbidity of Anxiety Disorders and Alcohol Dependence: *European Addiction Research*, 13, 39-49. DOI : 10.1159/1000095814
- Matt G. Kushner., Kenneth Abrams., and Carrie Borchardt., (2000) The Relationship Between Anxiety Disorders And Alcohol Use Disorders: *Clinical Psychology Review*, 20(2), 149–171.
- C J Caspersen., K E Powell., and G M Christenson., (1985) Physical activity, exercise, and physical fitness: *Public Health Rep*; 100(2), 126–131.
- Joshua J Broman-Fulks., Mitchell E Berman., Brian A Rabian., Michael J Webster., (2004) Effects of aerobic exercise on anxiety sensitivity. *Behaviour Research and Therapy*, 42 (2), 125-136.
- Marlatt GA. Lifestyle modification (1985) *Relapse Prevention.* New York, NY: The Guilford Press; 280–344.
- Broocks A., Bandelow B., Pekrun G., George A, Meyer T, Bartmann U, Hillmer-Vogel U, Rüther E. et al., (1998) Comparison of aerobic exercise, clomipramine, and placebo in the treatment of panic disorder.
- Taylor CB, Sallis JF, Needle R. The relation of physical activity and exercise to mental health. Public Health Reports. 1985;100(195201)
- Tkachuk GA, Martin GL. Exercise therapy for patients with psychiatric disorders: Research and clinical implications.

Professional Psychology: Research and Practice. 1999;30(3):275–282.

- *Matthew P. Herring, Patrick J. O'Connor,; Rodney K. Dishman,* The Effect of Exercise Training on Anxiety Symptoms Among Patients *Arch Intern Med. 2010;170(4):321-331*
- Matt G. Kushner, (2002) Comorbidity of alcohol and anxiety disorders among college students: Effects of gender and family history of alcoholism Kenneth J
- Read More
- to an alcoholic treatment program. Journal of Drug Education. 1982;12:137–145.
- American College of Sports Medicine Guidelines for exercise testing and prescription. Lippincott, Williams and Wilkins; New York: 2000.
- Broocks A, Bandelow B, Pekrun G, George A, Meyer T, Bartmann U, et al. Comparison of aerobic exercise, clomipramine, and placebo in the treatment of panic disorder. American Journal of Psychiatry. 1998;155(5):603–609. [PubMed]
- Brown RA, Evans DM, Miller IW, Burgess ES, Mueller TI. Cognitive behavioral treatment for depression in alcoholism. Journal of Consulting and Clinical Psychology. 1997;65(5):715–726. [PMC free article] [PubMed]
- Caspersen CJ, Powell KE, Christenson GM. Physical activity, exercise, and physical fitness: Definitions and distinctions for health-related research. Public Health Reports. 1985;100:126–131. [PMC free article] [PubMed]
- Collingwood TR, Reynolds R, Kohl HW, Smith W, Sloan S. Physical fitness effects on substance abuse risk factors and use patterns. Journal of Drug Education. 1991;21(1):73–84. [PubMed]

- Hodgins DC, el Guebaly N, Armstrong S, Dufour M. Implications of depression on outcome from alcohol dependence: A 3-year prospective follow-up. Alcoholism: Clinical and Experimental Research. 1999;23:151–157.
- Marcus BH, Albrecht AE, King TK, Parisi AF, Pinto BM, Roberts M, et al. The efficacy of exercise as an aid for smoking cessation in women: a randomized controlled trial. Archives of Internal Medicine. 1999;159(11):1229–1234. [PubMed]
- Marlatt GA. Lifestyle modification. In: Marlatt GA, Gordon JR, editors. Relapse prevention: Maintenance strategies in the treatment of addictive behaviors. Guilford Press; New York: 1985.
- Sinyor D, Brown T, Rostant L, Seraganian P. The role of a physical fitness program in the treatment of alcoholism. Journal of Studies on Alcohol. 1982;43(3):380–386. [PubMed]
- Taylor CB, Sallis JF, Needle R. The relation of physical activity and exercise to mental health. Public Health Reports. 1985;100(195201)
- Tkachuk GA, Martin GL. Exercise therapy for patients with psychiatric disorders: Research and clinical implications. Professional Psychology: Research and Practice. 1999;30(3):275–282.
- 13.Aerobic Exercise for Alcohol Recovery: Rationale, Program Description, and Preliminary Findings
- 14.Richard A. Brown, Ph.D.,* Ana M. Abrantes, Ph.D., Jennifer P. Read, Ph.D., Bess H. Marcus, Ph.D., John Jakicic, Ph.D., David R. Strong, Ph.D., Julie R. Oakley, M.S., Susan E. Ramsey, Ph.D., Christopher W. Kahler, Ph.D., Gregory G. Stuart, Ph.D., Mary Ella Dubreuil, and Alan A. Gordon, M.D.

10.1080/17461391.2010.509889 Asgeir Mamen[a*], Ståle Pallesen[b] & Egil W. Martinsen pages 269-276

- 15.Richard A. Brown, (2010) Aerobic exercise for alcohol recovery: behavior modification 33(2), 220 – 249.
- 16.The role of physical exercise in alcoholism treatment and recovery. Read, Jennifer P, Professional Psychology: Research and Practice, Vol 34(1), Feb 2003, 49-56. doi:10.1037/0735-7028.34.1.49
- 17.Agne C, Paolucci K. A holistic health approach The role of physical exercise in alcoholism treatment and recovery. Read, Jennifer P, Professional Psychology: Research and Practice, Vol 34(1), Feb 2003, 49-56. doi:10.1037/0735-7028.34.1.49 http://www.holisticonline.com/remedies/Anxiety/anx_exercise.htm
- http://www2.ucsc.edu/counsel/documents/exercise%20and%20mental%20health.pdf
- http://psychcentral.com/news/archives/2005-08/ace-adc080705.html
- http://dictionary.babylon.com/alcohol/
- www.pubmed.org
- http://www.alcoholism-and-drug-addiction-help.com/definition-of-alcoholism.html
- http://www.i http://hamsnetwork.orgndianwomenshealth.com
- http://counsellingresource.com
- http://www.umm.edu
- Changes in mental distress following individualized physical training in patients suffering from alcohol dependence

APPENDIX - A

COPY OF LETTER SEEKING PERMISSION FROM

TO CONDUCT THE STUDY IN SELECTED DE-ADDICTION CENTRES, MADURAI

Prof .Shabeera Banu, Ph.D
Principal.

vaanpuram,
Manamadurai,
Sivagangai.

To

THE DIRECTOR,

Respected Sir / Madam,

Sub: Matha college of nursing -Manamadurai – Project work of M. Sc (Nursing) student – permission requested – reg.

We wish to state that **Ms.N.Lavanya**, Final year M. Sc (Nursing) student of our college has to conduct a Research project, which is to be submitted to The Tamil Nadu Dr. M.G.R. Medical University, Chennai in partial fulfillment of University requirements.

The topic of research project is "A STUDY TO ASSESS THE EFFECTIVENESS OF AEROBIC EXERCISE FOR REDUCTION OF ANXIETY AMONG ALCOHOLIC DEPENDENCE IN SELECTED DEADDICTION CENTER AT MADURAI"

We therefore request you to kindly permit him to do the research work in your organization under your valuable guidance and suggestions

Thanking you,

Yours faithfully,

APPENDIX- B

LETTER REQUESTING OPNIONS AND SUGGESTIONS OF EXPERTS FOR ESTABLISHING CONTENT VALIDITY AND VALIDITY OF TOOL.

From

II year MSc (Nursing)
Matha college of nursing,
Madurai-20

To,

Respected Sir/Madam

SUB : Requesting opinions and suggestion of experts for the content validity and validity of tool.

I am a post graduate student (Psychiatry Nursing) of Matha college of nursing. I have selected the below mentioned topic of the research project submitted to DR.M.G.R. Medical university, Chennai as a fulfilment of Master of Science in nursing.

" A study to assess the effectiveness of aerobic exercise for reduction of anxiety among alcoholic dependence in selected de addiction centres at Madurai" With regard to this may I kindly request you to content and validate my tool for its relevancy. I am enclosing the objectives of the study. I would be highly obliged and remain thankful if you could validate and send it as early as possible.

Thanking you

Place : Yourfaithfully,

Faithfully

APPENDIX C

LIST OF EXPERTS CONSULTED FOR CONTENT VALIDITY

1. Dr. Mrs.Shabeera Banu , M.Sc (N), Ph. D
   Principal
   Matha college of nursing,
   Sivagangai.

2. Mrs.Jancy Rachel Daisy
   Reader,
   C.S.I. Jeyaraj Annapackiam College of Nursing,
   Pasumalai, Madurai.

3. Mrs.Jesintha
   H.O.D in Mental health nursing,
   Sacret heart nursing college,
   Madurai.

4 Dr.Karthickeyan, MD (Psy)
   Sr.Consultant psychiatry,
   Meenakshi mission hospital and research center,
   Madurai.

5. Mr.Suya,ASP
   Southern swingers institution,
   Kal mandapam,Rayapuram,
   Chennai-600013.

6. Prof , Mr.Kannan, M.Sc, M.Phil
   Professor cum Statiscian,
   Madurai.

7. Mr.Sankara pandiyan MSW
   Team leader in M.S.Chella muthu trust.
   Madurai.

8. Mr.Vignesh kumar, Msc (Clinical Psychology)
   Department of Psychiatry
   M.S,chellamuthu trust and research foundation.
   Madurai.

APPENDIX - D

CERTIFICATE

SOUTHERN SWINGERS INSTITUTION

Kal Mandapam,Royapuram,Chennai-600013.

Ph:8220209487 email: suryaasp@gmail.com

Certificate Course in Aerobic Exercise and Dance

Date: 05-Mar-2012

This is to Certify that ***Ms. N.LAVANYA*** ..... has completed our CERTIFICATE COURSE IN AEROBIC EXCERCISE AND DANCE (24hrs / Part time Education Programme designed and offered by experts in Choreography) by effectively participating in practical classes and successfully completing all the exercises. She has been placed in ....***FIRST CLASS***.....

A.S.P Surya B.E.,
Senior Choreographer
Southern Swingers Institution

APPENDIX E

DEMOGRAPHIC DATA

Part – I

1. Age in years	:	20 – 30
		31 – 40
		41 – 50
		51 – 60
2. Religion	:	Christian
		Hindu
		Muslim
		Others
3. Educational Status		:Illiterate
		Primary
		High School / Higher Secondary
		Diploma / Graduate
4. Occupation		Student
		Coolie
		Business man
		Private employees
		Government employees
5. Marital Status	:	single
		Married
		Divorced / Separated
		Widower

6. Income of the family	:	Rs. 3000 – 5000
		Rs. 5001 – 7000
		Rs. 7001 – 9000
		Above Rs. 9000
7. Type of family	:	Nuclear
		Joint
		Extended family
8. Place of residence		:Rural
		Urban
9. Duration of stay	:	Less than one month
		One month
		One month – 3 month
10. Duration of consumption of alcohol		:3 - 5 years
		6 - 8 years
		9 - 11 years
		Above 11 years
11. Which type of alcoholic beverages consumed by you?	:	a. Arrack
		b. Ethyl Alcohol
		c. Indian made foreign liquor
		(Whisky, Vodka, Brandy, rum etc)

12. How much amount you consume in a day for past one month?

a. 0 – 89 ml

b. 90 – 179 ml

c. 180 – 269 ml

d. Above 270 ml

13. Which factors causing you anxiety? :

a. Fear about well being without alcohol

b. Withdrawal of alcohol

c. Treatment plans

d. Financial

APPENDIX F

QUESTIONNAIRE ENGLISH PART

The Hamilton Anxiety Scale
is an Excellent Benchmark
for Rating Anxiety Levels.

Hamilton Anxiety Scale - Questionnaire

On a scale of 0 to 4, with 0 being "there is no problem" and 4 being "the situation is disabling to you", how do you rate yourself for each of the following symptoms of anxiety.

Symptom Rating Scale (0 = No Problem, 4 = Disabling)

Anxious Mood

1. Worries _____

2. Anticipates worst _____

Tension

3. Startles _____

4. Cries easily _____

5. Restless _____

6. Trembling _____

Fears

7. Fear of the dark _____

8. Fear of strangers _____

9. Fear of being alone _____

10. Fear of animals _____

Insomnia

11. Difficulty falling asleep or staying asleep _____

12. Difficulty with nightmares _____

Intellectual

13. Poor concentration _____

14. Memory impairment _____

Depressed Mood

15. Decreased interest in activities _____

16. Anhe donia (inability to experience pleasure) _____

17. Insomnia (inability to get restful sleep) _____

Somatic Complaints: Muscular

18. Muscle aches or pains _____

19. Bruxism (clenching and grinding teeth) _____

Somatic Complaints: Sensory

20. Tinnitus (ringing in ears) _____

21. Blurred vision _____

Cardiovascular Symptoms

22. Tachycardia (abnormally rapid heartbeat) _____

23. Palpitations (noticeably rapid, strong, or irregular heartbeat) _____

24. Chest pain _____

25. Sensation of feeling faint _____

Respiratory Symptoms

26. Chest pressure _____

27. Choking sensation _____

28. Shortness of Breath _____

Gastrointestinal symptoms

29. Dysphagia (difficult or painful swallowing) _____

30. Nausea or Vomiting _____

31. Constipation _____

32. Weight loss _____

33. Abdominal fullness _____

Genitourinary symptoms

34. Urinary frequency or urgency _____

35. Dysmenorrhea (painful menstruation) _____

36. Impotence (inability to achieve an erection) _____

Autonomic Symptoms

37. Dry mouth _____

38. Flushing _____

39. Pallor _____

40. Sweating _____

How Did You Act As You Completed This Questionnaire

41. Fidgety _____

42. Had Tremors _____

43. Paced Around _____

Once you have completed the Hamilton Anxiety Scale questionnaire, total up your score.

0-17: Normal
18-24: Mild anxiety
25-29: Moderate anxiety
30 +: Severe anxiety

APPENDIX -H

AEROBIC EXERCISE PROCEDURE

Aerobic exercise starts with warming up phase.

Stretching exercises were performed in order to relax the muscles and make firm the body to perform the strenual exercise.

I.**Warming Phase : (5-10 minutes)**

Begin the warm up exercise by finding a comfortable place and position.

Switch on the music, ask the participants to jump for 2 to 3 minutes.

Following that Participants are asked to perform marching on the spot drill.

1.**Marching on the spot**

Count 1 : Hands on the hip and raise the right leg.

Count 2 : Place the right leg down and raise the left leg up.

Count 3 : 3,4 & 5… up to 32 counts, the exercise goes on.

2. **One – Two Three forward (walking)**

Count 1,2,3	:	Move to front
Count 4	:	Tap with the left leg in front
Count 5,6,7	:	Come back
Count 8	:	Move the right leg in back and continue the exercise.

3. One Two – Three Knee Lift :

Count 1,2,3	:	Marching on the spot
Count 4	:	Right Knee up
Count 5,6,7	:	Same as 1-2-3
Count 8	:	Left knee up and exercise continues.

Moving your arms one by one in circular motion before going to the next phase.

II. Comprehensive Phase : (20 – 30 minutes)

- Switch on the preferred fast beat music.
- Start the speed movement exercise without taking next.

'V' Step

Count 1	:	Move the right leg in front in a cross manner and swing the hands.
Count 2	:	Move the left leg in front and parallel to right leg.
Count 3	:	Right leg back to the position.
Count 4	:	Left leg back to the position and exercise continues for 2-3 cycles.

‘V’ Step Rotation

Count 1	:	Move the right leg in front in a crossed position to the right side
Count 2	:	Move the left leg parallel to right leg with arm actions according to their wishes.
Count 3	:	Change the direction of the toe and body to the right.
Count 4	:	Left leg joined with the right.
Count 5, 6	:	Same as the 1-2-3-4 (Then the direction of rotation can be changed to left upto 16 to 32 counts).

Jump in V step

Count 1	:	Jump to the right side in cross with the right leg same as in v step by finishing each side with a jump.
Count 2	:	Jump to the left side with left leg parallel to right leg.
Count 3	:	Jump to the back and join the two legs.
Count 4	:	Another jump at the back and the exercise continues to 16 or 32 count.

Diamond in V step

Count 1	:	Move the right leg forward in a crossed position to the right side and then left leg parallel to the right leg.
Count 2	:	Move to the front, place the right leg in a crossed position to the centre
Count 3	:	Move the left leg also to the same position.
Count 4	:	Repeat the exercise in the reverse order (The exercise can be done with the rotation)

Power Walk

Count 1	:	Move the right leg to the right side simultaneously moving the left leg upto the right side shoulder level by swinging the hands.
Count 2	:	Move back to the left side upto the original position.

Repeat the first two counts for 2- 3 minutes.

III. Cooling Down phase

- Switch on some slow beat music
- Slowly inhale while raising the arms up
- Slowly exhale while bringing the arms down

Repeat the above two steps for 2-3 minutes.

- ✓ Loosen the stretched muscles by performing the warm up drills in a slow manner.
- ✓ Repeat the marching on the spot drill in a slow manner.
- ✓ Keep jumping for one minute in a slow manner
- ✓ Hydrate yourself with water after twenty minutes and relax.;

APPENDIX – G

QUESTIONNAIRE – TAMIL

குறிப்பிட்ட காலத்தில் குறிப்பிட்ட சமூகத்தினரிடையே ஏற்படும் மாற்றங்களின் விபரம்

டெமோகிராபிக் விபரம்

பகுதி – ஐ

1. வயது (வருடத்தில்)	◦	20 – 30
		31 – 40
		41 – 50
		51 – 60
2. மதம்	◦	கிறிஸ்தவர்
		இந்து
		முஸ்லீம்
3. கல்வி விபரம்	◦	படிப்பறிவற்றவர்
		தொடக்கக்கல்வி
		உயர்நிலைப்பள்ளி / மேல்நிலைப்பள்ளி
		பட்டப்படிப்பு / பட்டதாரி
4. பணி விபரம்	◦	மாணவர்
		கூலி
		வியாபாரி
		தனியார் அலுவலர்
		அரசாங்க அலுவலர்
5. திருமண விபரம்	◦	திருமணமாகாதவர்
		திருமணமானவர்
		விவாகரத்தானவர்
		பிரிந்திருப்பவர்
		துணை இழந்திருப்பவர்

6. குடும்ப வருமானம் ◦ ரூ. 3000 – 5000

ரூ. 5000 – 7000

ரூ. 7000 – 9000

ரூ. 9000 க்கும் மேல்

7. குடும்ப விபரம் ◦ தனிக் குடும்பம்

கூட்டுக்குடும்பம்

பெரிய குடும்பம்

8. தங்குமிடம் ◦ கிராமம்

நகரம்

9. போதை மறுவாழ்வு மையத்தில்

தங்கும் கால அளவு ◦ ஒரு மாதத்திற்கும் குறைவாக

ஒரு மாதம்

ஒரு மாதம் முதல் 3 மாதங்கள்/

10/ மதுபானம் ◦ 3 – 5 வருடங்கள்

6 முதல் 8 வருடங்கள்

9 முதல் 11 வருடங்கள்

11 வருடத்திற்கும் மேல்

11/ எவ்விதமான மதுபானத்தை நீர் விரும்பி பருகுவீர்கள்?

அ/ நாட்டுச் சாராயம்

ஆ/ எரிச் சாராயம்

இ/ இந்தியர்களால் செய்யப்பட்ட வெளிநாட்டு பானம்

(விஸ்கி. ஓட்கா. பிராந்தி. ரம். இதர)

12/ கடந்த ஒரு மாதகாலமாக தினமும் எவ்வளவு மதுபானம் அருந்துனீர்கள்?

அ/ 0 – 89 மில்லி

ஆ/ 90 – 179 மில்லி

இ/ 180 – 269 மில்லி

ஈ/ 270 க்கு மேல்

13. எவ்விதமான காரணிகள் உங்களுக்கு மனப்பதட்டத்தை ஏற்படுத்துகிறது?

அ/ மதுபானம் இல்லாதிருக்கையில் நல்வாழ்வு பற்றின பயம்

ஆ/ மதுபானத்திலிருந்து விடுபடுதல்

இ/ சிகிச்சை முறைகள்

ஈ/ பொருளாதாரம்

HAMILTON ANXIETY SCALE

பயந்த மனநிலை:

1. கவலைகள்
2. மோசமான எதிர்பார்ப்பு

பதற்றம்:

1. பிரயத்தனம்
2. எளிதாக அழுகிறது
3. அமைதின்மை
4. உதறல்

பயம்

1. இருள் பயம்
2. அன்னியர்கள் பயம்
3. தனிமை பற்றிய பயம்
4. விலங்குகள் பற்றிய பயம்

தூக்கமின்மை

1. தூங்குவதற்கு சிரமபடுவது
2. கனவுகளினால் ஏற்படும் சிரமங்கள்

அறிவு சார்ந்த கேள்விகள்

1. கவனம் செலுத்த சிரமபடுதல்
2. நினைவக சேதம்

தாழ்த்தப்பட்ட மனநிலை

1. நடவடிக்கைகளின் மீது ஆர்வம் குறைவு
2. மகிழ்ச்சியை உணர இயலாமை
3. தூக்கமின்மை

தசைகள் சார்ந்த உடல் தொந்தரவுகள்

1. தசை பிடிப்பு அல்லது வலி
2. பற்களை கடித்தல்

உணர்வுகள் சார்ந்த உடல் தொந்தரவுகள்

1. காது இரைச்சல்
2. மங்கலான பார்வை

இதய மண்டலம் சார்ந்த அறிகுறிகள்

1. அதிகமான இதய துடிப்பு
2. படபடப்பு
3. நெஞ்சு வலி
4. மயக்கம் வருவது போன்ற உணர்வு

சுவாச மண்டல அறிகுறிகள்

1. மார்பு அழுத்தம் போன்ற உணர்வு
2. நெஞ்சு அடிப்பது போன்ற உணர்வு
3. மூச்சு திணறல்

குடல் இரைப்பை மண்டல அறிகுறிகள்

1. விழுங்க சிரமபடுதல்
2. குமட்டல்/ வாந்தி
3. மலச்சிக்கல்
4. எடை குறைவு
5. வயறு நிறைந்தது போல உணர்வு

சிறுநீக மண்டல அறிகுறிகள்

1. அடிகடி சிறுநீர் கழிக்க வேண்டும் என்பது போல உணர்வு
2. ஆண்மை குறைவு

தன்னிலை சார்ந்த அறிகுறிகள்

1. வாய் உலர்தல்
2. சிவந்து போதல்
3. வெளிறிய முகம்
4. வியர்த்தல்

கேள்விகளின் முடிவில் உங்களின் மனநிலை

1. கிளி ஊட்டும் உணர்வு
2. நடுக்கம்
3. ஏதும் தெரியாதது போன்ற உணர்வு

APPENDIX - I

அதிக ஆக்ரிஜனை உட்கொள்ள உதவும் உடற்பயிற்சி

முதல் படி ஆயத்த நிலை

இப்பபயிற்சிக்கு முன். தசைகளை தளர்வாகவும் உடலை உறுதியாகவும் வைக்கவும்.

ஐ. ஆய்த்த நிலை (5 – 10 நிமிடங்கள்)

- உங்களுக்கு வசதியான இடத்தில் மற்றும் வசதியான நிலையில் ஆய்த்தநிலை பயிற்சியை தொட;கவும்
- இசை ..... இப்போது இரண்டிலிருந்து மூன்று நிமிடங்கள் வரை குதிக்கவும்

1. நின்று கொண்டே நடைபயிற்சி செய்தல்

எண்ணிக்கை 1. கைகளை இடுப்பின் மேல் வைக்கவும். வலது காலை தூக்கவும்

எண்ணிக்கை 2. வலது காலை கீழே வைத்து. இடது காலை தூக்கவும்

எண்ணிக்கை 3. 3.4. 5 ..... இதே போல 32 முறை மாறி மாறி செய்யவும்.

2.ஒன்று இரண்டு மூன்று முன்னேறி நடத்தல்

எண்ணிக்கை 1.2.3 : முன்பாக நகரவும்

எண்ணிக்கை 4 : இடது காலை முன்பாக தட்டவும்/

எண்ணிக்கை 5.6.7 ?

எண்ணிக்கை 8 : வலது காலை பின்புறம் தொடர்ந்து உடற்பயிற்சியை மேற்கொள்ளவும்

3. ஒன்று இரண்டு மூன்று முழங்காலை தூக்கதல்

எண்ணிக்கை 1.2.3 : நடக்கவும்

எண்ணிக்கை 4 : வலது முழ;காலை தூக்கவும்

எண்ணிக்கை 5.6.7 : 1.2.3 மூன்று செய்தவாறே செய்யவும்

எண்ணிக்கை 8 : இடது முழ;காலை தூக்கவும்

(உ;கள் கைகளை வட்டமாக சுழற்றி . மின் அடுத்த நிலைக்கு தயாராகவும்)

ஐஐ. விரிவான நிலைகள் (20 –30 நிமிடங்கள்)

- தேர்ந்தெடுக்கப்பட்ட வேகமான இசை
- வேகமான நகர்தல் பயிற்சியை இடைவெளி விடாமல் ஆரம்பிக்கவும்

1. 'வி' வடிவம்

எண்ணிக்கை 1: வலது காலை முன்பக்கம் தளர்வாக வைத்து. கைகளை அசைக்கவும்

எண்ணிக்கை 2: இடது காலை வலது காலுக்கு இணையாக முன்பக்கம் வைக்கவும்

எண்ணிக்கை 3: வலது காலை மீண்டும் அதன் நிலைக்க கொண்டு வரவும்

எண்ணிக்கை 4: இடது காலை அதன் நிலைக்க கொண்டு வரவும். பயிற்சியை 2?3 சுழற்சிகள் தொடரவும்

2. 'வி' வடிவ சுழற்சி

எண்ணிக்கை 1 : வலது காலை முன்பக்கம் குறுக்கே வைக்கவும்

எண்ணிக்கை 2 : இடது காலை வலது காலுக்க இணையாக முன்பக்கம் வைத்து கைகளை உங்கள் விருப்பப்படி அசைக்கவும்

எண்ணிக்கை 3: கால் விரல்பகுதியையும். உடம்பையும் வலது பக்கம் திருப்பவும்

எண்ணிக்கை 4: இடது காலை வலது காலுடன் இணைக்கவும்

எண்ணிக்கை 5.6: 1.2.3.4 செய்தவாறே செய்யவும்

(இடது காலில் இதேபோல் 16 முதல் 32 முறை செய்யவும்)

3. வி' வடிவத்தில் குதித்தல்

எண்ணிக்கை 1: வலது காலை கொண்டு வலது பக்கம் தளர்வாக குதிக்கவும்

எண்ணிக்கை 2: இடது காலை கொண்டு இடது பக்கத்தில் வலது காலுக்கு இணையாக குதிக்கவும்

எண்ணிக்கை 3: பின்பக்கம் குதித்து இரண்டு கால்களையும் சேர்க்கவும்

எண்ணிக்கை 4: மீண்டும் ஒருமுறை பின்பக்கம் குதிக்கவும். பியிற்சியை 16 முதல் 32 முறை தொடரவும்

4. வைர வடிவப் பயிற்சி

எண்ணிக்கை :? வலது காலை தளர்வாக முன் குறுக்கே நகர்த்தவும்

எண்ணிக்கை 2: இடது காலை தளர்வாக முன் குறுக்கே நகர்த்தவும்

எண்ணிக்கை 3: வலது காலை முன்பாக நகர்த்தி மத்தியில் வைக்கவும்

எண்ணிக்கை 4: இடது காலை நகர்த்தி வலது காலுடன் இணைக்கவும்

எண்ணிக்கை 5.6.7.8: மேலே உள்ள 4 படியை மீண்டும் செய்யவும் (பயிற்சியை தலைகீழாக செய்யவும். பயிற்சியை சுழற்சி முறையிலும் செய்யலாம்)

5.நடத்தலின் சக்தி

எண்ணிக்கை 1: வலது. இடது காலை வலது தோள்பட்டை வரை வலது புறம் நகர்த்தவும்

எண்ணிக்கை 2: இடது. வலது காலை இடது தோள்பட்டை வரை இடது புறம் நகர்த்தவும்

எண்ணிக்கை 3: எண்ணிக்கை 1 மற்றும் எண்ணிக்கை 2யை இரண்டு. முதல் மூன்று நிமிடம் செய்யவும்

தளர்வு நிலை

- **மெதுவான இசை//**
- **கைகளை உயர்த்தி கொண்டே மூச்சை உள் இழுக்கவும்**
- **கைகளை இறக்கிக் கொண்டே மூச்சை வெளியிடவும்**
- **இதை தொடர்ந்து இரண்டு மூன்று நிமிடங்கள் செய்யவும்**
- **இறுக்கமான தசைகளை ஆய்த்த நிலை பயிற்சியை மிக மெதுவாக செய்து தளர்த்தவும்**
- **நின்று கொண்டே நடைப்பயிற்சியை திரும்ப செய்யவும்**
- **ஒரு நிமிடம் மெதுவாக குதிக்கவும்**
- **தாகத்தை 20 நிமிடத்திற்கு பிறகு தண்ணீர் குடித்து தணித்து ஓய்வுப்பெற்று கொள்ளவும்**