EFFECTIVENESS OF GROUP PHYSICAL ACTIVITY ON DEPRESSION, ANXIETY AND WELL BEING AMONG SENIOR CITIZENS IN THE LITTLE SISTER OF THE POOR HOME FOR THE AGED AT THINDAL

A DISSERTATION SUBMITTED TO THE TAMILNADU DR. MGR MEDICAL UNIVERSITY, CHENNAI IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE DEGREE OF

MASTER OF SCIENCE IN NURSING

2010 – 2012

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APPROVED BY DISSERTATION COMMITTEE ON 18.11.2010

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ACKNOWLEDGEMENT

With deep sense of gratitude I thank **God almighty** for his grace and close presence, which strengthened and sustained me through this endeavor.

I extend my heartfelt thanks to the **Management of Bishop's College of Nursing** for having given me the opportunity to uplift my professional life.

I convey my immense sense of gratitude to **Prof. Mrs**. **Vijayarani Prince M.Sc.(N).,M.A.,M.A.,MPhil, Principal,** Bishop's College of Nursing, Dharapuram for her spiritual support, valuable corrections, suggestions and constant encouragement throughout the period of study.

I express my heartful thanks to **Mr. John Wesley, Administrator,** Bishop's College of Nursing, Dharapuram for given me an opportunity to study in this esteemed institution.

I take my sincere gratitude to **Mrs. Madonna Selvan M.Sc(N).,** Head of the Department of Psychiatric Nursing**,** Bishop's College of Nursing, Dharapuram for her concern, help, constant guidance and valuable suggestions throughout my study.

I am indebted to my class Co ordinator **Mrs.Glory suramanjari M.Sc (N).,** for her expert guidance, Constant support and untiring efforts in the area of research, kindled my spirit and enthusiasm to go ahead and to accomplish this study successfully.

I thank to all the experts who have contributed their suggestions by validating the tool.

I express my genuine gratitude and obligation to **Dr. Duraisamy Ph.D., (stat).,** who aided me for statistical analysis.

I acknowledge my genuine gratitude to **Dr.Anand, MD. DPM, Associate Professor, Department of Psychiatry, PSG Institute of Medical Sciences & Research** for his extensive guidance, treasured help and experts' opinion in successful completion of the study

I am grateful to **Mr.Christopher Gunaseelan M.A.,M.Ed.,(English), Mrs. Siranjivi Mary M.A.,M.Ed.,(Tamil), Mr. Veluchamy, MA., M.Ed.,(Tamil) and Mrs. Susheela M.A.,M.Ed.,(Tamil)** for valuable help in Tamil editing and shaping this manuscript in to present form.

My special heartfelt thanks to incharges of old age home at Thindal and I would like to exclusively thank all the participants of the study for their co-operation.

I express my thanks to **Mr. Vijay Kumar, Vijay Xerox**, Dharapuram for their co-operation and untiring help in computerizing the material throughout the study for making me to complete the study in time.

I extent my great thanks to all **Library Staff** for their constant support.

I continue to be indebted to all for their support, guidance and care who directly and indirectly involved in my progress of work and for the successful completion of this study.

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ABSTRACT

The Human life cycle consists of 4 stages which is birth, growth, adult and elderly. Aging- the normal process of a time related change, begins with birth and continues throughout the human life. Every individual has to undergo each stage with physical, emotional, psychological and social changes. According to Erik Erickson, old age stage is a culmination of many precious intra psychic and interpersonal changes. Normal aging is a gradual process that ushers in some physical decline, such as decreased sensory abilities (e.g., vision and hearing) and decreased pulmonary and immune function etc. Certain changes in mental functioning also occurs among those depression, and anxiety are the common problems among senior citizens. The Indian aged population is currently the second largest in the world. Community-based mental health studies have revealed that the point prevalence of depressive disorders among the geriatric in India varies between 13 and 25%. Unfortunately old age has now become a prevalent problem in our society where money is the scale of everything, the old age people are measured as an economic liability and a social burden and also the joint family system diminishes and nuclear family system emerges which raises the number of old age homes (more than 150) in India. Free and Paid are two types of old age homes which emerging in India and it become popular among middle and high class families.

The present study was aimed to assess the effectiveness of group physical activity on depression, anxiety and well being among senior citizens in the little sister of the poor home for the aged at Thindal.

The research approach selected for the study was evaluative approach. The study made use of one group pretest post test pre experimental design. The conceptual framework of the study was based on the Modified Wieden Bach's Helping Art of Clinical Nursing Theory (1969**).** Purposive sampling technique was used to select 100 samples for the study. Pre test was done using Geriatric

depression scale, Geriatric anxiety inventory and modified well being scale to assess the depression, anxiety and well being. Group physical activity such as walking for 30 minutes, exercise for 20 minutes was given in the morning and evening, art therapy for 30 minutes in the morning and games and listening to music for 45 minutes in the evening was given to senior citizens once for 28days. Post test was conducted on the 29th day. The data were analyzed by using descriptive and inferential statistics. The mean post test scores of level of depression 11.4(SD±2.391) was lower than the mean pre test scores of level of depression 19.95(SD±2.119). There was a significant difference between pre test and post test scores of level of depression 't'value=57,at ($p< 0.05$) level among senior citizens. The mean post test scores of level of anxiety 6.6(SD±1.154) was lower than the mean pre test scores of level of anxiety 12.22(SD±1.15). There was a significant difference between pretest and post test scores of level of anxiety 't'value=44.009,at ($p< 0.05$) level among senior citizens. The mean post test scores of level of well being 45.94(SD±6.774) was higher than the mean pre test scores of level of well being 33.09(SD±5.249). There was a significant difference between pretest and post test scores of level of well being 't'value=31.11at ($p< 0.05$) level among senior citizens.

The findings revealed that the group physical activity was helpful in reducing the level of depression, anxiety and improves the well being among senior citizens.

CHAPTER- I

INTRODUCTION

“Age is not a particularly interesting subject. Anyone can get old. All you have to do is live long enough”.

DonMarquis

BACKGROUD OF THE STUDY

Mind is the basis of all our activities hence, if mind is healthy, desirable behavior exists. Mental health is a sense of well being, an individual experiences.

When a person is able to carry out his or her role in society and his environment, people say that person is healthy, when the roles and responsibilities are not met and behavior is mal adaptive, some people say the person is ill.

K P Neeraja,(2008)

There are two kinds of old ages. Old age of the physical body and old age of the mental body. Nobody can stop the aging process of the physical body, but it is possible for the old age people to keep the mind agile and active to a great extend**.** During old age, the changes occurs normally as well as pathologically. The emotional and mental changes are also takes place throughout the life cycle. With adequate situational support, and coping ability they can overcome these changes succesfully.

Javier.F,(2004)

Old age people will have common physical, emotional, family and social problems. Some of the health problems that generally affect senior citizens are blood pressure, cardiac problems, diabetes, joint pains, kidney infections, cancer, tuberculosis etc. Once they occur, these disease may take a long time to heal due to old age. As people get older they lose some of their emotional abilities. Things that they found simple to do they may need to dependent on others.

World Health Organisation,(2010)

Old age is considered by many to begin at retirement. Financial aspects of retirement, planning investments for favorable returns are greatly emphasized for senior citizens. Different people will respond differently to retirement. The potential loss of daily stimulation can lead to problems in social and cognitive functioning. Retirement will lead to spending more time at home and this can sometimes lead to friction.

Amrutha Lovekar,(2008)

Senior Citizens are susceptible to a variety of mental illnesses. Among those depression and anxiety is more prevalent in which seriously affects the mental health of senior citizens and they are not taken care by their own childrens and grand dumping is becoming common in urban areas these days as children are being increasingly intolerant of their parents' health problems. It is then children began to see their parents as burden. It is these parents who at times wander out of their homes or are thrown out. Some dump their old parents or grand parents in old age homes and don't even come to visit them anymore.

Azad India Foundation,(2010)

The rates of depression and anxiety disorders are higher both in older adults and in those living in institutional settings. Those who are living at old age homes and age group 60 to 70 are independent risk factors for developing anxiety, depression and mixed anxiety and depression. This can be explained by geriatric homes which can be described as a prison for elderly, in which they become deconditioned and lose their ability to do their usual instrumental activity of daily life, together with the lack of privacy, social activity and emotional support. They also suffer from negative life events.

Tomader Taha Abdel Rahman,(2005)

The difficult changes that many elderly face-such as the death of a spouse or medical problems can lead to depression, especially in those without

a strong support system. In fact most seniors are satisfied with their lives despite the challenges of growing old. Depression may be due to loneliness and isolation, health problems, fear, medications, recent bereavement. Older adult's shows depression cues such as unexplained aches, hopelessness, helplessness, anxiety, worries, irritability, lack of interest in personal care. Antidepressant medication may help ease the symptoms of depression in the elderly and counseling and therapies such as psychotherapy and cognitive behavioral therapy also available to treat depression.

Melinda.S,(2010)

Not only is anxiety highly prevalent in geriatric homes but also the manifestations of anxiety are more in elderly living at geriatric homes than in those living at their own homes. The characteristic manifestations of anxiety in elderly men living at geriatric homes are insomnia, somatic muscular complaints, somatic sensory complaints, genitourinary symptoms, autonomic symptoms and behavioral symptoms. In women, the significant manifestations of anxiety are the anxious mood, cardiovascular symptoms and gastrointestinal symptoms.

Tomader Taha Abdel Rahman,(2005)

There are many more people who experience psychological or emotional distress associated with isolation, loneliness or loss. These Problems are not recorded by the health or medical care system but contribute to poor emotional wellbeing and low life satisfaction. High levels of inequality are increasingly being recognised as detrimental to emotional wellbeing and mental health resulting in envy which causes stress, and the feeling of relative failure.

Jessica .A,(2008)

Based on a Gallup-Healthways phone survey from 2008 of more than 340,000 Americans, held even after the researchers accounted for factors that could have contributed to differences in well-being with age, such as whether the participants were married, had children at home or were employed.

Rachael .R, (2010)

Antianxiety medications was the drug of choice for treating the senior citizens with anxiety. And other techniques such as relaxation techniques, life review, cognitive behavior therapy and exploration of the spiritual aspects can be used.

The regular practice of Pranayama can be quite effective in not only overcoming anxiety and depression among the elderly but also help them in promoting mental health which will help them develop a sort of resilience to any kind of mental or physical illness.

Pranay Kumar Gupta,(2010)

There is a general belief that physical activity and exercise have positive effects on mood and anxiety and a great number of studies describe an association of physical activity and general well-being, mood and anxiety.

Andreas.S,(2008)

Regular physical activity has beneficial effect on most organs systems and its consequences prevent broad range of health problems and disease. It helps to improve mood and relief of symptoms of depression, improves the quality of life and well being. Older persons may benefit even more than those in middle-age from physical activity.

Metter.et.al.,(2002)

The maintenance of physical activity in later life is central to improving physical health. Regular exercise has beneficial effects on general health, mobility and independence, and is associated with a reduced risk of depression and related benefits for mental wellbeing, such as reduced anxiety and enhanced mood and self-esteem. To get the most benefit, aim for 30 minutes of exercise per day and other such activities like aerobic exercise, yoga, walking, dancing, art , games and entertainment.

Marmot.et.al.,(2003)

NEED FOR THE STUDY

Elderly population is incresingly globally due to demographic transition. As per the United Nations estimate the global life expectancy at birrth which is now at 68.9 years (India-65.2) is expected to increase to 75.5 years (India-73.3) in 2050. In absolute members the population over 60 years in the world has surpasses 700 million in 2009 and it is expected to increase to 2 billion in 2050.

Although depression in the elderly is a common problem. Depression is the most common mental health problem in later life. Estimates vary because much depression is unrecorded, but it is likely that 20 to 25 per cent of older people experience depression that impacts significantly on their quality of life

Lee,(2006)

In Phildelphia the overall prevalence rate of anxiety disorders among adults aged 65 and above is 5.5%.

Kaplan,(2000)

According to the National Institute of Health, of the 35 million Americans age 65or older, about 2 million suffer from full-blown depression. Another 5 million suffer from full less severe forms of the illness.

Melinda.S,(2010)

In United States about 11.4% adults over the age of 55 meet the criteria for anxiety disorders. Non-specific anxiety rates are reported to be upto 17% in elderly men and 21% in elderly women.

U.S.Public health service,(2000)

In the UK depression strikes 1 in 5 of the elderly population who live in the community and 2 in 5 of those who live in care homes. Caucasian men over the age of 80 are 6 times more likely to attempt suicide than any other demographic. Depression in nursing homes/ care homes can reach as high as 25%, only 10% seek help. Anxiety affects about 6 million elderly people.

Researchers says that generalized anxiety disorder (GAD) may be the most common mental disorder among the elderly, although little is known about how to treat the disorder among older adults. "Studies have shown that

generalized anxiety disorder is more common in the elderly, affecting 7% of seniors, than depression, which affects about 3% of seniors.

Jennifer Warner,(2006)

The findings of the National Service Framework for older people, indicates that 10%-15% of people living in the community, over the age of 65, had depression severe enough to warrant clinical intervention. Depression also has proven to be one of the most common emotional disorders among Canadian older adults, affecting almost 10% of the general elderly population of Canada.

Lia,(2000)

In Canada approximately 57.1% of elderly living alone have anxiety disorders and major depression.

Abdel Rehman.et.al.,(2000)

Levels of depressive illness were: Iceland 8.8%, Liverpool 10.0%; Zaragoza 10.7%; Dublin 11.9%; Amsterdam 12.0%; Berlin 16.5%; London 17.3%; Verona 18.3% and Munich 23.6%.

John RM Copeland.et.al.,(2004)

In Taiwan, prevalence of psychiatric disorders among elderly was 37.7%, with 15.3% depressive neurosis and 5.9% major depression.

Mion.Y,(2001)

In Australia, during 2007, anxiety disorders affecting 14% of all people aged 60-85 years1. Women were more likely to have experienced anxiety disorders than men (18% and 11% respectively). Mood disorders (also known as affective disorders), such as depression, dysthymia and bipolar affective disorder, affected 6.2% of people aged 60-85 years (7.1% of women and 5.3% of men).

National Survey of Mental Health and Wellbeing,(2007)

In Netherland, the prevalence of geriatric pure depression was 17.1%, pure anxiety was 4.8% and of comorbidity of anxiety and depression was 5.1%.

Martin.S,(2005)

In Egypt, the elders 65years and above, the depression rate was 23.8%, and anxiety rate was 2.4%.

Tomander.T,(2005)

In Pakistan, Estimates of major depression in older people living in the community range from less than 1 percent to about 5 percent, but rises to 13.5 percent in those who require home healthcare and to 11.5 percent in elderly hospital patients.

National Health Interview Survey,(2008)

In India the population above 60 years in 2010 is 91.7 million (7.5%) and it is expected to increase to 315.6 million (19.6%) in 2050. The life time incidence of depression is 26.9% for men and 45.2% for women in people upto 70 years of age. The prevalence of depression in the total population is estimated at 5-8%. In elderly people (usually 65 years and older) the prevalence is generally estimated at 12-15%. The prevalence of Major Depression Disorder in individuals more than 65 years was estimated to be 1.4% in women and 0.4% in men with over all prevalence of 1%.

Ramkumar.Dr,(2010)

In Delhi, the prevalence of psychiatric disorder in elderly, was 49.2%, in that depression 23.6%, and anxiety disorders 10.8%.

Archana.C,(2008)

In Mumbai, depressed elderly constituted 45.9% of the study population and was more in females 57.8%.

Jain.RK.et.al.,(2007)

In Punjab, the most common psychiatric disorders among elderly was depression 25.94% followed by anxiety disorder 4.54%.

Aman Sood,(2006)

The prevalence of depression in Karnataka among elderly population was 21.7%. The prevalence rates of depression among the males and females were 19.9% and 22.6%.

Ankur.B,(2010)

In Chennai urban and rural epidemiology study results shows that elders affected with depression was 15.1% and was higher in females 16.3%.

Subramani.P,(2009)

In Coimbatore, the prevalence of death anxiety in elderly was18.19%.

Peterson,(2000)

Studies have shown that among elderly, anxiety disorders occurs two to seven times more often than depression problems. The prevalence of anxiety in community samples ranges from 1.2% to 15% and clinical settings from 1% to 28%.

Jackson and Bryant et al.,(2008)

In Pune, the prevalence of elderly well being staying in old age home 90% was found to have under borderline emotional well-being, 0.5% of them under negative emotional well being.

Nisha.N,(2007)

In Mysore, among the elderly men(20%) had low level of well being when compared with the women (50%) had low level of well being.

Vanitha,(2009)

Among the sample elderly people from Tamil Nadu State, India, slightly less than half of the elderly (47%) persons are found to be suffering from one or the other physical disability conditions which has impact on well being.

Audinarayana,(2002)

For alleviating anxiety, depression and to improve the sense of well being, physical activity is encouraged. No one is too old to enjoy the benefits of regular physical activity.

Approximately 1/3 of persons age 65 or older lead a sedentary life style, older women are generally less physically active than older men 54 % men and 66% of women age 75 and older engage in no leisure- time activity. In general African American older adults are less active than white older adults. Recent estimates indicate that physical inactivity is responsible for about 8% of the total burden of disease in Australia. Inactivity is believed to be an important

contributor to the increasing prevalence of obesity in western nations and has been shown to be associated with all causes of mortality.

World Health Organisation,(1997)

Physical activity has been shown to enhance feelings of well-being in various population groups. A possible physiological mechanism for feelings of well-being could be the release of endorphins during exercise.

The World Senior Citizens Day is celebrated on every 9th August and Senior Citizens National Solidarity Day is on 16th August every year inorder to respect the senior citizens. Some of the voluntary organisations are elso available among which Helpage India is the most popular non profitable organization in india working for elderly health care and fights for old age people rights to basic age care facilities such as pensions, social security, health care, safety and security, transport and mobility. It covers nearly 15 lakh elders through its services every year and it has 35 brances all over India.

Helpage India,(2012)

Helpage society which is a registered National level voluntary non profitable organization aimed to establish senior citizens homes for elders throughout the india.and totally 14 voluntary and non profitable organizations are functioning in the care of elderly throughout the India.

Insurance is considered a form of long term savings for senior citizens. It provides financial stability and also helps them in times of need. Over the years the schemes and policies such as National Policy On Older Persons, National Council For Older Persons, Scheme of Ministry and Pension Scheme was introduced specifically for the senior citizens inorder to promote the health, well being and independence of senior citizens throughout the country.

All India Institute Of Medical Sciences,(2009)

Annapoorna Scheme also launced for the senior citizens 65 years of age or above who though eligible for the old age pension under the National Old Age Pension Scheme but are not getting the pension, are covered and 10kgs of food grains per person per month are supplied free of cost under the scheme

and the senior citizens have given concessions and facilities in Train Transport, Road Transport, Air Travel, Telephone and Post services.

All India Institute Of Medical Sciences,(2009)

In Tamilnadu, the pensions to all beneficiaries those who are not having support from their childrens under the Social Security Pension Schemes their old age pension raised to 1,000 per month from 500 per month. In Tamil Nadu Transport Corporation buses, two seats in the front exclusively for old people and handicapped. Indian Railways provide 30% concession in all classes and trains including Rajadhani/Shatabdi trains for male/ female senior citizens who have attained 60 and 65 years of age respectively. In Tamil Nadu, lower berth for senior citizens is also provided on request. Separate reservation counters are marked for Senior Citizens at various PRS (Passenger Reservation System) Centres. In health sector aspects special geriatric OPDs and Geriatric Care clinic are available in Madurai, Madras,Coimbatore and CMC Vellore is available which provides comprehensive care for senior citizens and their investigations, drugs, physiotherapy, opthalmic services are provided at free of cost.

O. Panneerselvam,(2011)

Ankur Barua & Nilamadhb Kar.,(2010), Karnataka, conducted the study to determine the prevalence of depression among the elderly population of rural areas of Udupi district, Karnataka. This cross-sectional study was conducted over a period of eight months and research sample consist of 627 people in the age group of 60 years and above for the study. Simple random sampling, without replacement method, using the probability proportaonate (PPS) technique was used. The WHO (five) well being index was used for screening. p value<0.05 was considered statistically significant. Result shows that the prevalence of depression in elderly population was determined to be 21.7% (95% CI=18.4-24.9). The prevalence rates of depression among the males and females were 19.9% and 22.6% respectively.

Cesar Rodriguez and Anne S. Mather.et.al.,(2002) Dundee, conducted a study to determine whether exercise is effective as an adjunct to antidepressant therapy in reducing depressive symptoms in older people. Patients were randomized to attend either exercise classes for 10 weeks. The primary outcome was seen with the 17-item Hamilton Rating Scale for Depression, Secondary outcomes were seen with the Geriatric Depression Scale, Clinical Global Impression and patient Global Impression. At 10 weeks a significantly higher proportion of the exercise group(55% vs 33%) experienced a greater than 30% decline in depression according to HRSD (OR=2.51, P=0.05, 95% CI 1.00-6.38).Results shows that exercise is associated with a modest improvement in depressive symptoms at 10 weeks.

The investigator during her visit to old age home observed senior citizens who are separated from the family, less support systems, and disabilities are the few reasons for their stay. While communicating with senior citizens the investigator observed that their interaction with other senior citizens are less, and many of them expressed their loneliness, anxious about their future, looking upset, dull and not involved in any physical activities and sitting alone.This has initiated the investigator to help the senior citizens to find some measures in reducing their depression, anxiety, and improving their well being.

STATEMENT OF THE PROBLEM

A study to assess the effectiveness of group physical activity on depression, anxiety and well being among the senior citizens in The Little Sister of the poor home for the aged, Thindal.

OBJECTIVES

1. To assess the pretest and post test level of depression among senior citizens
2. To assess the pretest and post test level of anxiety among senior citizens
3. To assess the pretest and post test level of well being among senior citizens

4. To compare the pretest and post test scores of level of depression among senior citizens
5. To compare the pretest and post test scores of level of anxiety among senior citizens
6. To compare the pretest and post test scores of level of well being among senior citizens
7. To find association between post test scores of level of depression among senior citizens with their selected demographic variables.
8. To find association between post test scores of level of anxiety among senior citizens with their selected demographic variables
9. To find association between post test scores of level of well being among senior citizens with their selected demographic variables.

OPERATIONAL DEFINITION

EFFECTIVENESS

Effectiveness can be defined as "producing an intended result".

Peter Drucker.,(2009)

In this study, it refers to the extent to which the selected interventions reduces the level of depression, anxiety and improved well being among senior citizens determined by the significant difference between pretest and post test scores which is measured by using statistical measurements.

GROUP PHYSICAL ACTIVITY

It refers to planned series of three or four related measures or activities with a long term aim to promote good health behavior.

Todd M. Manini,(2006)

In this study, group physical activity refers to activities such as walking for 30 minutes (slow walking), exercise for 20 minutes which includes stretching exercise(Shoulder rotation and calf muscle stretching), Strengthing exercises (Plantar flexion, Arm raise and Back Strengthening exercises) in the morning and evening, art therapy which includes painting and drawing of

pictures using color pencils, crayons and water color for 30 minutes in the morning and games(30mts) including cards, carrom, chess and snake and ladder and listening to the music which includes spiritual and old songs (15mts) for 45 minutes in the evening. The group physical activity was demonstrated by the investigator, then the members were encouraged to participate in group physical activity for 28 days (4weeks).

DEPRESSION

Depression is a form of affective manifestation in which the client will exhibit mood disturbances related to self and his environment.

Neeraja,K.P.,(2008)

In this study, it refers to the level of depression among senior citizens residing in the old age home which is assessed as somatic and psychological symptoms and is measured by using geriatric depression scale and its scores.

ANXIETY

Anxiety is an unpleasant state, that involves a complex combination of emotions (fear, worry) accompanied by physical sensations (palpitations, chest pain, shortness of breath, tension headache).

Neeraja,K.P.,(2008)

In this study anxiety refers to a combination of emotional experiences by senior citizens who are residing in the old age home. It is assessed by using "Geriatric Anxiety Inventory" scale and its scores.

WELL BEING

Well being (Health) is a positive state of being that includes physical fitness, mental stability and social ease

Dugas,(2001)

In this study, it refers to subjective feelings of senior citizens residing in the old age home about their physical fitness and mental stability which is assessed by using modified well being scale and its scores.

SENIOR CITIZENS

The aging process is of course a biologically reality which has its own dynamic largely beyond human control. The age of 60 or 65, is said to be the beginning of old age.

World Health Organisation,(2000)

In this study, senior citizens refers to older adults who are above 60-75 years of age residing in the old age home.

HYPOTHESES

H_1: The mean post test scores of level of depression is significantly lower than the mean pre test scores of level of depression among senior citizens.

H_2: The mean post test scores of level of anxiety is significantly lower than the mean pre test scores of level of anxiety among senior citizens.

H_3: The mean post test scores of level of well being is significantly higher than the mean pre test scores of level of well being among senior citizens.

H_4: There will be a significant association between the post test scores of level of depression among senior citizens with their selected demographic variables.

H_5: There will be a significant association between the post test scores of level of anxiety among senior citizens with their selected demographic variables.

H_6: There will be a significant association between the post test scores of level of well being among senior citizens with their selected demographic variables.

ASSUMPTIONS

1. Senior citizens in old age home may have depression and anxiety due to separation from their children and their bodily illness.

2. Senior citizens well being may be affected if they have depression and anxiety.

3. Nurses play a vital role in reducing the depression, anxiety and improving their wellbeing by following various physical activities in any setting.

DELIMITATIONS

The study is delimited to,

Data collection period for 5 weeks only.

Sample size 100.

PROJECTED OUTCOME

Senior citizens can experience depression, anxiety and feeling of unease due to staying in care homes and due to changes associated with old age. Practicing group physical activity can reduce the depression and anxiety, thereby enhancing the well being and increase their life expectancy. Developing positive attitude towards practicing group physical activity will initiate others also to practice. This study will help to understand the effectiveness of group physical activity in reducing depression, anxiety and improving well being among senior citizens residing in the old age home.

\

CONCEPTUAL FRAMEWORK

Conceptual framework helps to express about abstract ideas in a more reality, understandable, or precise form of the original conceptuaization. The conceptual framework for this study was direction from Wiedenbach's helping art of clinical nursing theory(1969).

According to Ernestine Wiedenbach's nursing is nurturing and caring for someone in a motherly fashion. Nursing is a helping service that is rendered with compassion, skill and understanding to those in need for care, counsel and confidence in the area of health. The practice of nursing comprises a wide variety of services each directed toward the attainment of one of its three components.

Step 1 : Identification Of A Need For Help

Step II : Ministration of help needed

Step III : Validation that need for help was met

CENTRAL PURPOSE

According to the theorist the nurse's central purpose defines the quality of health. She desires to effect or sustain her patient and specifies what she recognizes to be her special responsibility in caring for the patient.

In this study, the central purpose is to reduce the level of depression, anxiety and improving well being among senior citizens residing in the old age home.

STEP I : IDENTIFICATION OF A NEED FOR HELP

According to the therapist within the identification component there are four distinct steps. First , nurse observes the patient, looking for an inconsistency between the expected behavior of the patient and the apparent behavior. Second, she attempts to clarify what the inconsistency means. Third, she determines the cause of the inconsistency. Finally she validates with the patient that her help is needed.

In this study, the general information which comprises the age, sex, education, religion, marital status, duration of stay in the old age home, number of children, reason for residing in old age home, and supporting system, nature of admission to old age home, previous occupation, current source of income, visit by family members, and hobbies. Pre test was done to assess the level of depression, anxiety and well being by using Geriatric depression scale, Geriatric anxiety inventory, and Modified well being scale.

STEP II : MINISTRATION OF THE HELP NEEDED

According to the theorist, in ministering to the patient, the nurse may give advice or information, make referral, apply a comfort measures or carry out a therapeutic procedures. The nurse will need to identify the cause and if necessary make an adjustment in the plan of action.

Ministration of help needed has two components,

1. PRESCRIPTION
2. REALITIES

1**. PRESCRIPTION**

According to the theorist a prescription is directive to activity. It specifies both the nature of action that will most likely lead to fulfillment of the nurse's central purpose and the thinking process that determines it.

In this study prescription is plan of care to achieve the purpose which includes demonstration of group physical activities such as walking for 30 minutes, exercise for 20 minutes in the morning and evening, art therapy for 30 minutes in the morning and games for 45 minutes in the evening for 28 days given to senior citizens with depression, anxiety and distress.

2. REALITIES

According to the theorist, the realities of situation which the nurse is to provide nursing care. Realities consist of all factors- physical, physiological, emotional and spiritual that are at play in a situation in which nursing actions

occur at any given moment Wiedenbach's defines the five realities as the agent, the recipient, the goal, the means, and the framework.

1. AGENT

According to the theorist, the agent is the practicing nurse or her delegate is characterized by personal attribute capacities, capabilities and most importantly commitment and competence in nursing.

In this study, the investigator is the agent.

2. RECIPIENT

According to the theorist, the recipient is the patient is characterized by the personal attributed, problem, capabilities aspirations and most important the ability to cope with the concerns or problem being experienced.

In this study, the recipients are senior citizens residing in the old age home.

3. GOAL

According to the theorist, the goal is the desired outcome the nurse wishes to achieve. The goal is the end result to be attained by the nursing action.

In this study, it refers to reduce the depression, anxiety and improving well being among senior citizens residing in the old age home.

4. MEANS

According to the theorist, the means comprise the activities and devices through which the practitioner is enabled to attain her goal. The means include skill techniques, procedures and devices that may be used to facilitate nursing practice.

In this study, it refers to implementation of group physical activity by the senior citizens for 28 days.

5.FRAMEWORK

According to the theorist, the framework is consist of the human, environmental, professional and organizational facilities that not only make up the context within which nursing is practiced but also constitutes currently existing limits.

In this study, it refers to the little sister of poor home for aged, Thindal, Erode.

STEP III : VALIDATION THAT NEED FOR HELP WAS MET

According to the theorist the third component is validation. After help has been ministered the nurse validates that the actions were indeed helpful. Evidence must come from the patient that the purpose of the nursing action has been fulfilled.

In this study, validating the need for help was met by means of post assessment of level of depression, anxiety and well being which was done on the 29th day after 4 weeks of intervention. Positive outcomes are absence of depression, no anxiety, and no distress. Negative outcomes are presence of mild and severe depression, Anxiety, and severe distress, moderate distress, and mild distress which in turn may need ministering the needed help.

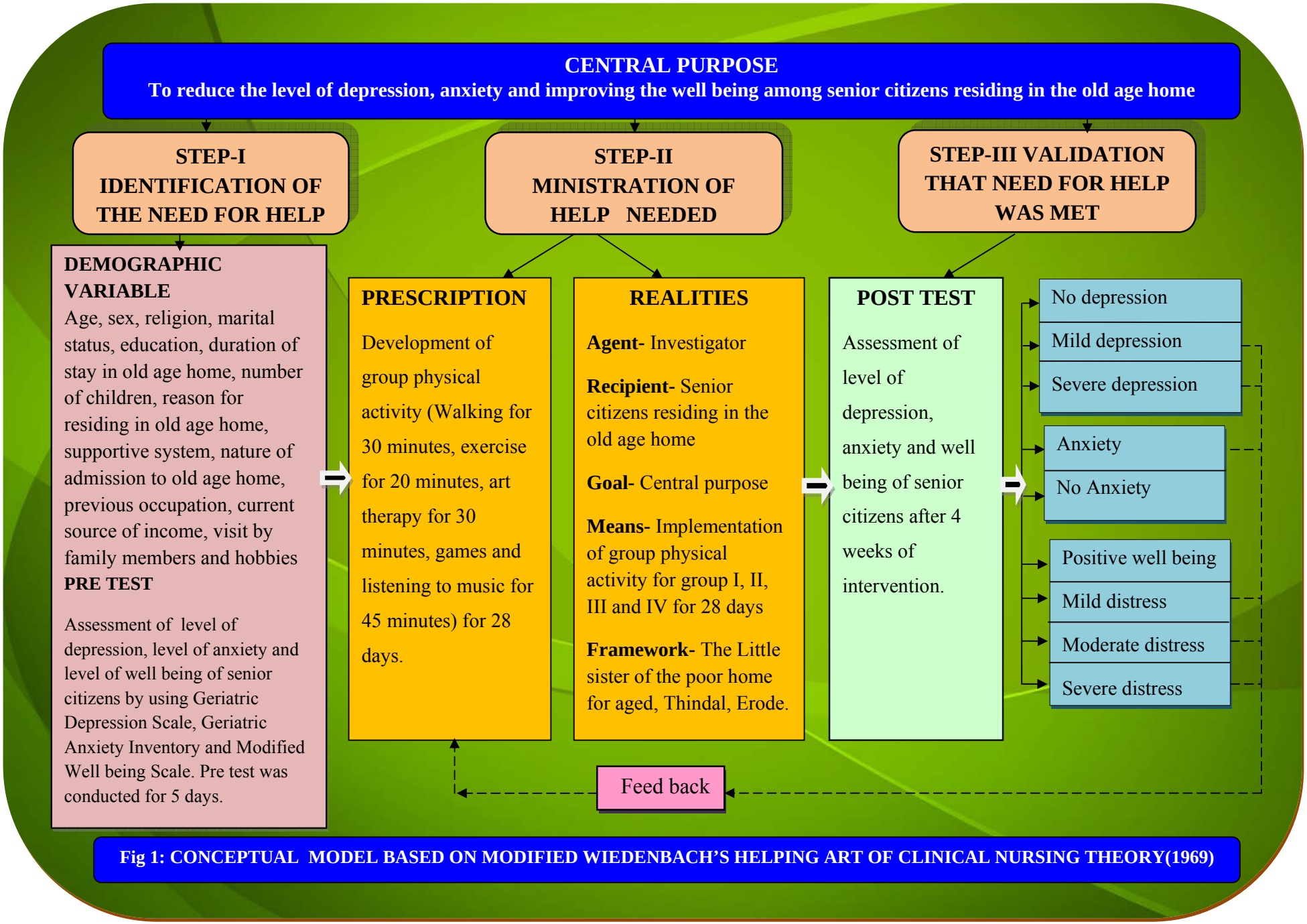


Fig 1: CONCEPTUAL MODEL BASED ON MODIFIED WIEDENBACH'S HELPING ART OF CLINICAL NURSING THEORY(1969)

CHAPTER – II

REVIEW OF LITERATURE

PART- I OVERVIEW OF

1. Depression among senior citizens
2. Anxiety among senior citizens
3. Well being among senior citizens
4. Group physical activity

PART-II

SECTION:A Studies related to prevalence of depression, anxiety and well being among senior citizens

SECTION:B Studies related to group physical activity on depression among senior citizens

SECTION:C Studies related to group physical activity on anxiety among senior citizens

SECTION:D Studies related to group physical activity on well being among senior citizens

PART-I OVERVIEW OF

DEPRESSION AMONG SENIOR CITIZENS

Definition

A change of affect is regarded as the central features of the mood disorders and in depression, the mood is often depressed, loss of interest, guilt and suicides are among the important symptoms of depression.

Jeyashee,K.,(2008)

Risk Factors

1. Although there is no single definite answer to why an elderly suffers from depression, many factors – physical, psychological, biological, genetic and environmental factors are involved.
2. Loss of the traditional homemakers role due to physical disability.
3. Retirement of husband and his intrusion into the home.

4. Grief and loneliness following death of husband.
5. Lack of family support e.g. when children have moved away.
6. Financial constraints.
7. Medical illness of thread to life of some one close.
8. Sensory loss and congenital decline.
9. Family history and major depressive disorder.

Clinical Manifestations

Depression unfortunately, usually goes undetected and untreated because many elderly many group up with the notion that depression is a character flow they worry about being stigmatized blame themselves for their illness and fell too ashamed to get help.The depressive symptoms among elderly are characterized by the following:

A). Somatic symptoms

Fatigue, weight loss, sleep disturbance, decreased appetite, generalized head ache, difficult with concentration.

B). Psychological symptoms

Feeling of hopelessness, worthlessness, helplessness, anhedonia, difficulty in coping with usual activities of daily living, a pessimistic attitude about the future and regret, anxiety, low self esteem, self depreciation, decreased social activities and social withdrawal.

Jeyashee,K.,(2008)

Diagnosis

The Geriatric Depression Scale, developed specifically for detecting probable in an elder people. A short form of GDS has been developed with just 15 questions (Sheikh and Yesavage, 1986).

The physical examination of the physical symptoms for the cause of depression

Treatment

1. Antidepressants e.g Sertraline, Flouxetine.
2. Electro Convulsive Therapy- indicated in severe depression with suicidal ideas.
3. Psychological interventions- when social isolation and bereavement have contributed depression.
4. Exercise therapy- combination with anti depressants shows significant results.

Jeyashee,K.,(2008)

ANXIETY AMONG SENIOR CITIZENS

Definition

Anxiety is an unpleasant state, that involves a complex combination of emotions accompanied by physical sensations.

Sankari.et.al.,(2009)

Causes

Understanding the determinants of an elderly person's anxiety requires careful consideration to co-existing medical and psychiatric illnesses. Anxiety in the elderly persons is largely related to object loss and fear of depletion of external resources.

The main areas of anxiety among elderly persons are,

1. Object loss
2. Health
3. Finance
4. Life stressors or real life burdens

1. **Object loss-** Loss of spouse which results in social isolation increases the anxiety in the elderly.
2. **Health-**Elderly are worried most about their health. They are worried that deterioration of physical functioning and illnesses might render them unable to live independently. Some common elderly diseases such as stroke, dementia and depression are associated with anxiety symptoms.

3. **Finance**-Many elderly worry about retired life and the subsequent changes of financial situation.
4. **Real life burdens**-Tasks of grant parenting, caring of a sick spouse, death of family members and friend, familial conflict, fear of personal safety, poor housing, difficult in obtaining medical care, social difficulties and difficulty in adjusting to changing life circumstances all contribute to anxiety and bodily reactions in response to stress.

Sankari.et.al.,(2009)

Psychophysiological features

1. Physical aspect

Rapid breathing/ breathing difficulty, palpitations, dizziness/ headache, muscle tension/pain, dry mouth/dyspepsia, abdominal discomfort, insomnia, and lack of appetite.

2. Emotional aspect

Anxious thoughts, irritability, helplessness, guilt feelings and panic.

3. Cognitive aspect

Over-alertness/ hypersensitivity, confusion, difficulty in objective thinking and in concentration.

4. Behavioral aspect

Restlessness, avoidance behavior, tics, using unhealthy stress relieving methods like smoking and drinking.

Treatment

It can be effective but must be approached with caution.

1. Benzodiazepines

May be effective for the short term treatment of anxiety

2. Antidepressant

It should be considered, particularly when mixed anxiety and depression or panic disorder are present.

3. Psychotherapy

1. Relaxation techniques

Muscle relaxation and breathing exercise lessen the anxiety by relaxing the muscles evoked during anxiety, reduces the physical and emotional stress and calms the mind.

2. Life review

Reminiscence is characterized by the progressive return of memories of past experiences, especially those that were meaningful and conflictual.

3. Cognitive behavior therapy

To compensate for specific deficits such as hearing loss or cognitive slowing, information may be presented in different modalities, such as written material or taped sessions for the patient to take home.

4. Exploration of the spiritual aspects

It can also be useful and provide additional support.

sankari.et.al.,(2009)

WELL BEING AMONG SENIOR CITIZENS

Definition

General Well-being is defined as the subjective feelings of contentment, happiness, satisfaction with life experiences and one's role in the world of work, sense of achievement, utility, belongingness and no distress, dissatisfaction or worry.

Liji.J & Leelamma,(2009)

The factors affecting health and wellbeing

A. Protective factors

1. Healthy conditions and environments

Safe physical environments, supportive economic and social conditions, regular supply of nutritious food and water, restricted access to tobacco and drugs , healthy public policy and organizational practice, provision for meaningful, paid employment, provision of affordable have the effect on health ane well being.

1. Psychosocial factors

Participation in civic activities and social engagement ,strong social networks, feeling of trust, feeling of power and control over life decisions, supportive family structure, positive self-esteem.

3. Effective health services

Provision of preventative services, access to culturally appropriate health services, community participation in the planning and delivery of health services.

4. Healthy lifestyles

Decreased use of tobacco and drugs, regular physical activity, balanced nutritional intake, positive mental health, safe sexual activity.

B. Risk factors

1. Risk conditions

Poverty, low social status, dangerous work, polluted environment, natural resource depletion, discrimination (age, sex, race, disability) steep power hierarchy (wealth, status, authority) within a community and workplace.

2. Psychosocial risk factors

Isolation, lack of social support, poor social networks, low self-esteem, high self-blame, low perceived power, loss of meaning or purpose, abuse.

3. Behavioural risk factors

Smoking, poor nutritional intake, physical inactivity, substance abuse, poor hygiene, being overweight, unsafe sexual activity.

4. Physiological risk factors

High blood pressure, high cholesterol, release of stress hormone, altered levels of biochemical markers, genetic factors.

Labonte.R,(1998)

Factors that shape wellbeing in older people

Many older people enjoy life, but a significant proportion struggle with loneliness, isolation, low-level mental health problems like depression or even more serious problems that lead to suicide.

A. Social exclusion, inequalities and health

Levels of inequality in income and wealth are very important in shaping levels of satisfaction and wellbeing among the general population. Wide inequalities have been found to be detrimental to wellbeing, causing stress and unhappiness.

Pickett and Wilkinson,(2007)

1. Poverty and deprivation

Poverty has a clear relationship with poor emotional wellbeing across the life cycle and worsening income inequalities. As old age becomes increasingly long as people live for longer, there is evidence that investment in early old age will pay off in older old age. Moreover, there are compelling ethical, moral and social justice reasons for further support and investment in older age.

Bamfield,(2007)

2. Physical health

There is a wealth of evidence showing that physical health is closely associated with emotional wellbeing. The need to encourage and support healthy living for over-65s is important, both to improve physical health and to sustain emotional wellbeing for older people. Physical activity, eating healthily and drinking sensibly are all closely linked to both good physical and mental health for older people.

Leatherman.et.al.,(2007)

B. Relationships and social life

1. Contact with friends and family

The most important factors underlying older people's mental health and wellbeing are social and Community participation. There is a sizeable body of research evidence linking the strength and quality of social relationships and community engagement to health, wellbeing and quality of life for older people.

Surr.et.al.,(2005)

2. Living alone

Levels of loneliness are higher among those who live alone compared witht those who live with others. So making policy intervention and support for social engagement for older people living alone even more important.

Actor.et.al.,(2002)

C. Events and transitions in life that can trigger poor wellbeing

1. Retirement

For some older people retirement offers the opportunity to participate more fully in other activities and spend more time with family and friends. However, for others it is a challenging event that leads to long periods spent alone or inactive, feeling 'worthless' and having no purpose which clearly undermines wellbeing.

Lee,(2006)

2. Bereavement

Most people face bereavement and grief as they age. Women are at greater risk because they are more likely to live longer than men. While bereavement is traumatic and stressful for everyone, most older people eventually manage the distress and adjust. For some, levels of wellbeing recover to the same levels or higher as before the Bereavement.

Oswald,(2007)

Guide to improve well being

1. **Soothing soles**

Foot massage is a highly beneficial treatment for the elderly often provided by live-in carers. A non-invasive treatment, it helps to induce relaxation, which in turn aids the body's own healing processes.

2. **Getting out and about**

While a sprightly walk in the park might not be the ticket for many elderly clients, a pleasant ride in the car can be a very stimulating experience for the willing and able.

3. **Gourmet delights**

Meal times are based on a strict menu plan in care homes, but with live-in care 'elderly foodies' can make the most of their hidden culinary talents.

4. **A snapshot of life**

Getting out the family album and reminiscing is a great way for clients and carers to get to know each other.

5. **Off for a stroll**

Being at home means that elderly people still have access to their garden; a garden, which has often been loved and cultivated for many years.

6. **Music is food for the soul**

Music brings out many emotions and being in touch with our feelings

7. **Wordsworth**

Putting pen to paper, and sitting down to write a letter is also a useful way to organise thoughts – keeping the brain ticking over and bringing meaning to the day-to-day events in an elderly person's life.

8. **Anyone for scrabble?**

Elders will join in a game of scrabble – new words and old words combining, making this an enjoyable way to pass the time.

9. **Sharing experiences**

Elders may have own favourite hobbies and pastimes and sharing these is an ideal way, not only to get to know someone, but also to develop other interests. It could be stamp collecting, coin collecting or flower pressing.

Consultus Care and Nursing Agency,(2009)

GROUP PHYSICAL ACTIVITY

Definition

All bodily movements that results in energy expenditure. This includes daily routine activities such as house hold jobs, shopping and work.

Physical activity refers to all energy expended by movement. The major contributors are everyday activities that involve moving the body around, such as walking, cycling, climbing stairs, housework, and shopping, with much of it occurring as an incidental part of our routines. Exercise, on the other hand, is a planned and purposeful attempt, at least in part, to improve fitness and health. It might include activities such as brisk walking, cycling, aerobic dance, and perhaps active hobbies such as gardening and competitive sports.

Susan Ingraham,(2008)

Benefits of physical activity

The benefits of being physically active are numerous and range from a reduced risk of certain diseases and conditions to improved mental health.

Mental health

Physical activity is thought to help ease stress, boost your energy levels and improve your general wellbeing and self-esteem. It can also help to reduce anger. As well as this, physical activity can make you sleep better. (But do the activity during the daytime or early evening, not near to bedtime.)

Studies have also shown that regular physical activity can help to ease anxiety and depression. Physical activity has an effect on certain neurotransmitters (chemicals in the brain) and so works a bit like an antidepressant drug. Effects on stress levels, energy and mood can start to be

felt after just 25 minutes of physical activity. A daily physical activity programme may also help someone with depression because it provides a target or schedule for their day. For mild depression, many doctors believe that physical activity can be as good a treatment as antidepressants or psychological treatments like cognitive behavioral therapy (CBT).

Susan Ingraham,(2008)

Physical Activity and Good Physical Health

Regular physical activity improves health in the following ways:

1. Reduces the risk of dying prematurely from heart disease anf other conditions
2. Reduces the risk of developing diabetes
3. Reduces the risk of developing high blood pressure
4. Reduces blood pressure in people who already have high blood pressure
5. Reduces the risk of deveolping colon and breast cancer
6. Helps to maintain a healthy weight
7. Helps build and maintain bones, muscles and joints
8. Helps older adults to become stronger and better able to move about without falling
9. Reduces feelings of depression and anxiety
10. Promotes psychological well-being

Anthony A. Vandervoort,(2001)

1. **Exercises for Senior citizens**

1. **Stretching**

Older joints may become stiff and inflexible. In order to avoid injury during strength training and aerobic exercises, need to warm up and cool down with stretching exercises for 5-15 minutes.

1. **Shoulder Rotation**

Stretch your arms out to the side and then bend your elbows so that your lower arms point downward (towards your feet) at a right angle. Hold this position for 10-30 seconds. Now bend elbows so that lower arms point upward

(towards your head) at a right angle. Hold this position for 10-30 seconds. Repeat 3-5 times.

1. Calves

Stand far enough away from a wall so that when hands are placed on the wall the arms are straight. Move one leg back 1-2 feet and make sure the heel and foot of that leg are flat on the floor. Hold this position for 10-30 seconds. Bend the knee of the leg that is moved back; make sure to keep the heel and foot flat on the floor. Hold this position for 10-30 seconds. Now repeat with the opposite leg. Repeat 3-5 times with each leg.

2. **Strength Training**

There are also a variety of strength training exercises that can be done simply around the home.

1. **Plantar Flexion**

This exercise strengthens the ankle and calf muscles. Hold a table or chair for balance and stand up straight. Slowly raise the body up so that you are standing on tiptoe (as high as possible). Hold this position for about 1 second. Then slowly lower the heels so that they are back on the ground. Repeat 8-15 times, rest a minute, then do another set of 8-15.

2. Arm Raise

This exercise strengthens the shoulder muscles. Put arms straight down at your sides with palms facing inward (toward your body). Now raise both arms to the side until they are at shoulder height. Hold this position for 1 second and then slowly lower arms back to your sides. Repeat this 8-15 times, rest, then do another 8-15 repetitions.

3. **Endurance Exercises**

These are any activities that increase your heart rate and breathing for a long time-span. Good exercises to engage in are low-impact exercises

including swimming, walking, and dancing. Endurance exercises should be done for 30 minutes daily for 28 days.

D. Back Strengthening Exercises

Back pain is a common symptom of aging. Here are two exercises can do to strengthen the back muscles:

1. To strengthen the muscles in upper back and shoulder, sit with back straight and feet flat on the floor. With arms relaxed and bent, pull back your shoulders as far as they will go.

National Institute on Aging,(2009)

2. Art classes

The empty paper was given to the senior citizens and asked to draw an art whatever comes in their mind and the paper containing pictures was given and asked them to colour those pictures by using colour pencils, water colours and crayons for 30 minutes.

3. Games

The indoor games was conducted among senior citizens such as chess, carrom, cards, snake and ladder for 30 minutes.

4. Musical or Entertaining Events

The music such as old songs and spiritual songs were played in DVD player and asked senior citizens to listen the music for 15 minutes.

PART-II

SECTION:A STUDIES RELATED TO PREVALENCE OF DEPRESSION, ANXIETY AND WELL BEING AMONG SENIOR CITIZENS

Prina AM, Ferri CP, Guerra M, Brayne C, Prince M. (2011) investigated the prevalence of anxiety and its correlates among older adults in low- and middle income countries with diverse cultures. Cross sectional surveys of all residents aged 65 or over (n= 15 021) in 11 catchment sites in 7 countries were China, India, Cuba, Dominican Prepublic, Venezuela, Mexico and Peru) were

carried out. Anxiety was measured by using Geriatric Mental State Examination (GMS) and the Automated Geriatric Examination for Computer Assisted Taxonomy (AGECAT) diagnostic algorithm. The age- and gender standardised prevalence of anxiety varied greatly across sites, ranging from 0.1% (95% CI 0.0-0.3) in rural China to 9.6% (95% CI 2-13.1) in rural Peru. Urban centers had higher estimates of anxiety than their rural counterparts with adjusted (age, gender and site) odds ratios of 2.9 (95% CI 1.7-5.5). Anxiety is common in Latin America. Estimates from this region are similar to the ones from high-income. European countries found in the literature.

Nagaraj AKM, Mathew J, Nanjegowda RB, Majgi SM, Purushothama SM.(2011), conducted this project towards studying and comparing the psychiatric morbidity and quality of life of elderly people residing in two unique settings: community and old age homes in Mysore. It is a cross-sectional study where the elderly subjects, 50 each in both the groups, were selected by simple random sampling technique and assessed on Mini Mental Status Examination (MMSE), Informant Questionnaire on Cognitive Decline in Elderly (IQCODE), Brief Psychiatric Rating Scale (BPRS) and Quality of life visual analogue scale. On comparison using suitable statistical analysis, there was no significant difference in the total scores on MMSE, IQ CODE and quality of life scale across the groups. Depression was present in 22% of people in the community and 36% of old age home inmates. Psychosis was present in 26% of people in the community and 20% of old age home inmates. The psychiatric morbidity is high in elderly irrespective of the setting in which they live.

Vishnu Gopal, Veena G, Sini Vijayan and Ram V Nambootiri,(2009) Thiruvananthapuram, conducted the comparative study to assess the depression among elderly, living in old age homes and in other domiciles in trivandrum corporation.The elderly population aged above 60years living in old age homes and in the community were selected for the study.50 cases from each group were interviewed using a structured questionnaire using GDS. Data

was analyzed statistically using a t-test for significance and also into the age wise, sex wise and occupation wise distribution of depression as a whole. Depression was found to be more in inmates of old age homes. Among the 50cases in old age homes, 4 of them were having mild depression, 28 were having moderate depression and 18 were having severe depression. Among the 50cases studied from the community 34 were having mild depression, 14 were having moderate depression and 2 were having severe depression. On sex wise analysis depression was found to be more among females.

Subramani Poongothai,(2009) conducted the study to determine the prevalence of depression in an urban south indian population. Subjects were recruited from the Chennai Urban Rural Epidemiology Study (CURES), involving 26,001 subjects randomly recruited from 46 of the 155 corporation wards of Chennai (formerly Madras) city in South India. 25,455 subjects participated in this study (response rate 97.9%). Depression was assessed using a self-reported and previously validated instrument, the Patient Health Questionnaire (PHQ)- 12. The overall prevalence of depression was 15.1% (age-adjusted, 15.9%) and was higher in females (females 16.3% vs males 13.9%, p,0.0001). The odds ratio (OR) for depression in female subjects were 1.20 [Confidence Intervals (CI): 1.12-1.28, P<0.001] compared to male subjects. Depressed mood was the most common symptom (30.8%), followed by tiredness(30.0%) while more severe symptoms such as suicidal thoughts (12.4%) and speech and motor retardation(12.4%) were less common. There was an increasing trend in the prevalence of depression with age among both female(p<0.001) and male subjects (p<0.001). The prevalence of depression was higher in the low income group (19.3%) compared to the higher income group (5.9%. p<0.001). Prevalence of depression was also higher among divorced (26.5%) and widowed (20%).

Usha V.K, Lalitha K, and Padmavathi, (2009), conducted the study to assess the level of depression and cognitive impairement among old age people living in Kottayam district. A descriptive survey design were used and the elderly

population aged above 60 years were selected. Totally 150 old age peoples from both sex were selected by stratified random sampling. Geriatric Depression Scale and Mini Mental Status Examination were used to find depression and cognitive impairement. Results shows that majority of the population (49.3) belongs to the age group of 60-70 years, females constitute 59.3% whereas males were about 40.6% and 53.3% have no source of income, 74.6% have primary education, and majority 73.4% of old age people were having severe depression.

Rajkumar.AP,et.al.,(2009),Vellore, conducted a study with aim to establish the nature, prevalence and factors associated with geriatric depression in a rural south Indian community. 1000 participants aged over 65 years from Kaniyambadi block, Vellore, were selected. Geriatric Mental State, Community Screening Instrument for Dementia, Modified CERAD 10 word list learning task, History and Etiology Schedule Dementia Diagnosis and Subtype, WHO Disability Assessment Scale II, and Neuropsychiatric Inventory Prevalence of geriatric depression (ICD-10) within the previous one month was 12.7% (95% CI 10.64-14.76%). Low income (OR 1.78; 95% CI 1.08-2.91), experiencing hunger (OR 2.58; 95% CI 1.56-4.26), history of cardiac illnesses (OR 4.75; 95% CI 1.96-11.52), transient ischemic attack (OR 2.43; 95% CI 1.17-5.05), past head injury (OR 2.70; 95% CI 1.36-5.36) and diabetes (OR 2.33; 95% CI 1.15-4.72) increased the risk for geriatric depression after adjusting for other determinants using conditional logistic regression. Geriatric depression is prevalent in rural south India.

Yalcin Kirmizioglu, Orhan Dogan, Nesim Kugu, Gamze Akyuz,(2009), Turkey conducted the study to determine current and lifetime prevalence of anxiety disorders amongst elderly people. The research sample consisted of 462 persons. A Socio-demographic Data Form was given to the participants and the Anxiety Module of SCID-I was applied. Chi-square and Fischer's exact tests were used to evaluate the data obtained. The current prevalence for all types of anxiety disorder was found to be 17.1% overall and the lifetime

prevalence was found to be 18.6%. Lifetime prevalence rates for these disorders were 1.1%, 3.2%, 3.0%, 2.85%, 11.5% respectively. In order to improve the delivery of health services, it is recommended that further studies should be conducted among elderly people, both by applying standardized diagnostic tools, but also taking into account socio-economic factors and using convenient therapy methods developed specifically for this group.

Archana Chowdhury.MD,and Sanjeev Kumar Rasania.MD, (2008)conducted the study to study the prevalence of psychiatric disorders among the elderly based on different demographic characteristics. A cross-sectional study of 250 elderly living in 'charge 2' census area of New Delhi were administered the General Health Questionnaire (GHQ), the Hindi Mental State Examination (HMSE) after taking their socio-demographic profile. Residents screening positive were administered the Structured Clinical Interview for DSM-III-R and a DSM-III-R derived algorithm for Dementia. One hundred and thirty elderly (52%) screened positive with GHQ and 33 elderly (13.2%) with HMSE. Based on case identification interview, prevalence of psychiatric disorders was 49.2%. Depression (23.6%), Dementia (11.6%) and Anxiety disorder (10.8%) were the most common disorders. The elderly population constitutes a high-risk group for developing mental illness. The high prevalence of psychiatric disorders in this growing population of low-income elderly presents a challenge to the delivery of mental health service.

Ganatra HA et al., (2008), Pakistan, conducted a study to assess the magnitude and risk factors of the problem of depression in an elderly population of Pakistan. A cross-sectional study was conducted using a sample of 402 people aged 65 and above visiting the Community Health Center of the Aga Khan University, Karachi. Questionnaire based interviews were conducted for data collection and the 15-Item Geriatric Depression Scale was used to screen for depression. Univariate and multivariate logistic regression analyses were performed to identify factors associated with depression. The mean age was 70.57 years (SD=+/-5.414 years). The prevalence of depression was found

to be 22.9% (95% CI=+/-4.1%) and multiple logistic regression analysis indicated that higher number of daily medications (p-value=0.03), total number of health problems (p-value=0.002), financial problems (p-value<0.001), urinary incontinence (p-value=0.08) and inadequately fulfilled spiritual needs (p-value = 0.067) were significantly associated with depressive symptoms.

Jain.RK,et.al.,(2007)Mumbai, conducted a study to assess the epidemiological factors associated with geriatric population and depression. A sample size of 196 was taken according to Lots quality technique, including all elderly above 60 years of age in the study area. Depressed elderly (using Geriatric Depression Scale) constituted 45.9% of the study population and was more in females (57.8%, $p < 0.05$). The significant variables associated with depression were poor socio-economic status, marital status, non-working or dependency and illiteracy ($p < 0.05$). Depressed elderly were more inclined towards substance abuse (58.13%), had disturbed sleep patterns (61.6%) and mostly suffered from acute/chronic illness ($p < 0.05$).

Petronella J. (Nelleke) van't Veer-Tazelaarab et al.,(2007), British, conducted a study on the prevalence of and risk factors for depression of elderly people. The samples selected for this community based study were 2850 participants aged 75 years or more. A clinically relevant level of depressive symptoms was defined as a score of ≥16 on the Centre for Epidemiologic Studies Depression scale (CES-D). Simple and multiple logistic regression techniques were used to determine the risk indicators with apparent importance to this population. The prevalence of depressive symptoms was assessed to be 31.1%. The bi variate age effect was OR 1.05 (95% CI=1.03 to 1.07). Depressive symptoms are highly prevalent in the elderly population and increase with age.

Tomader Taha Abdel Rahman,(2005),Egypt, conducted the study to evaluate the prevalence of anxiety & depression in lone elderly living at their own homes & going to geriatric clubs regularly or living at geriatric homes.

164 lone elderly participants from geriatric clubs (group I) & 168 lone elderly participants from geriatric homes (group II) were included in this study. Hamilton Anxiety Scale & Hamilton Depression Rating Scale were used for detection of anxiety & depression respectively. The co-occurrence of anxiety and depression is 34.1% & 57.1% in group I and group II respectively, while depression per se is 22.0% & 23.8% and anxiety per se is 2.4% & 1.2% in group I & group II respectively ($p<0.001$). Living at geriatric homes and age group 60 to 70 are independent risk factors for anxiety, depression or mixed anxiety and depression. While, male gender is an independent risk factor for depression**.**

Martin Smalbrugge.et.al., (2005),**Netherland** conducted the study to assess the occurrence and risk indicators of depression, anxiety, and comorbid anxiety and depression among nursing home patients. The sample consist of 333 nursing home patients of somatic wards of 14 nursing homes in the north west of the Netherlands with the Schedules for Clinical Assessment in Neuropsychiatry (SCAN) and the Geriatric Depression Scale (GDS). Logistic regression analyses were carried out to identify demographic, health-related, psychosocial and care-related correlates of anxiety and depression. The prevalence of pure depression (PD) was 17.1%, of pure anxiety (PA) 4.8%, and of comorbid anxiety and depression (CAD) 5.1%. Comorbidity increased dependent on severity of both anxiety and depression.

Edwin de Beurs, Ph.D., & Aartjan T.F. Beekman, M.D., Ph.D.,et.al.,(2000), Netherland conducted the study to examine the comorbidity of and communality of risk factors associated with major depressive disorder and anxiety disorders in later life. A random age- and sex-stratified community-based sample (N=3,056) of the elderly (age 55–85 years) was studied. A two-stage screening design was used, with the Center for Epidemiologic Studies Depression Scale as a screening instrument was used. Risk factors were measured with well-validated instruments and represented a broad range of vulnerability and stress-related factors associated with anxiety and depression.

Multivariate analyses was used for analyse the findings. Comorbidity was highly prevalent: 47.5% of those with major depressive disorder also met criteria for anxiety disorders, whereas 26.1% of those with anxiety disorders also met criteria for major depressive disorder. Although high levels of comorbidity between major depressive disorder and anxiety disorders were found, comparing risk factors associated with pure major depressive disorder and pure anxiety disorders revealed more differences than similarities. Anxiety disorders in later life merit separate study.

Vanitha Innocent Rani,(2009), Mysore conducted a comparative study on the well being among elderly couples living in the joint family. The study was conducted at Cheneerkuppam, total of 40 elderly couples aged 60years and above were selected by using convenient sampling. They were administered PGI general well being scale which consist of 20-items. There was a significant association between the level of well being and the number of children at $p<0.01$ level. The result of the study revealed that among elderly men(20%) had low level of well-being when compared with the women(50%) had low level of well-being. In men(60%) had moderate level of well-being and in women(50%) of them had moderate level of well-being. Men(20%) of them had high level of well being and none of the women had high level of well being.

Debi Chakrabarti,(**2009), Tripura** conducted the study to assess the well-being of the Elderly Residing in Old Age Home Vs. those in Family Setting. The survey with comparative survey design was adopted and 60 samples from the old age homes and 60 samples from the family setting were selected. Purposive sampling technique used was one for the old age home and Snowball technique for the family setting. Structured interview method was used whichh consist of two parts. Part 1 had items pertaining to personal data and Part 2 comprised 40 structured items of Standardised Subjective well-being inventory. Most of the elderly were in age group of 60-70 years, illiterate with low income status, belonging to nuclear family, female, married in old age homes, and 60 percent

of elderly were in age group of 60-70 years. The mean subjective well being score of elderly living in family setting was 88, median 82, and standard deviation 12.22. Mean subjective well being score of elderly living in old age homes was 81, median 80, and standard deviation 9.32.Mean difference of subjective well being of elderly living in family setting was significantly higher than elderly living in old age homes.

Nisha Naik, (2007), conducted the comparative study to assess the emotional well being of senior citizens staying in old age home versus citizen staying with family of Pune city.The research design used was exploratory descriptive design. Simple random sampling was used. The sample of the study consisted of 120 male and female senior citizens out of which 60 from old age home and 60 residing in family. A structured self reporting questionnaire was prepared for assessing emotional well being of senior citizens. The reliability of the tool was done by using test-retest method and was found to be 0.96. Results showed that maximum(90%) of the senior citizens from old age home are under borderline emotional well-being(61-80), 0.5% of them under negative emotional well-being(40-60), and rest 0.5% of them under positive emotional well being(81-100) and in family setting 92% are under positive emotional well being and 08% are under borderline emotional well being and in both groups of senior citizens no one is under extremely positive emotional well being(101-120).There is no association between emotional well being with their demographic variables.

Latiffah A L a , Nor Afiah Ma, Shashikala,(2005), Malaysia conducted the study to assess general psychological well being in the population by using General Health Questionnaire (GHQ). The objective of the paper is to determine psychological well being of the elderly people in Peninsular Malaysia. Data of 1013 subjects (older persons aged 60 years) from a four-state cross sectional study was used in this analysis. Overall prevalence of emotional disorders among the elderly was 18%. The respondents aged 60 to 90 years comprised of 50.2% female and 49.8% male. About 81% of respondents were

in the age group of 60-69, 16.5% in the 70-79 years and 2.5% in the age group of 80 years and above. Most were married (73.5%); separated, widow/widower (25.1%); and single (1.4%). Of them 39.5% never attended school, 48.2 % had primary education, 9.3% had secondary education and 3.1% had tertiary education. Among those who worked, 2.2% worked in the government sector, 4.0% in the private sector, 8.0% government pensioners, 4.6% retired from private sector and 2.2% worked on voluntary basis.

SECTION:B STUDIES RELATED TO GROUP PHYSICAL ACTIVITY ON DEPRESSION AMONG SENIOR CITIZENS

McCaffrey R and Liehr P.et.al.,(2011), **Florida** conducted this pilot study to compare garden walking (either alone or guided) with art therapy in older adults with depression. Depression was measured using the Geriatric Depression Scale (GDS) 47% of participants had depression scores in the severe range and 53% in the mild range. At the end of the intervention, none of the participants had scores in the severe range, 89% had scores in the mild range, and 11% had scores in the normal range. Results of the GDS data using repeated measures analysis of variance indicated significant decreases in depression for all three groups from pretest to posttest. All participants, regardless of group assignment, had a lower percentage of negative-emotion word use and a higher percentage of positive-emotion word use over time. This study provides evidence for nurses wishing to guide older adults in safe, easy, and inexpensive ways to reduce depression.

Cooke.M,(2010),Australia conducted the randamosied control study to investigate the effect of live music on quality of life and depression in 47 older people with dementia using the Dementia Quality of Life and Geriatric Depression Scale. The control/reading group reported higher mid-point feelings of belonging than the music group ($F(1, 45) = 6.672$, $p < .05$). Sub-analyses of >or= 50 per cent music session attendance found improvements in self-esteem over time ($F(2, 46) = 4.471$, $p < .05$). Participants with scores that were suggestive of increased depressive symptoms had fewer depressive symptoms

over time (F(2, 22) = 8.129, p < .01). Findings suggest music and reading activities can improve self-esteem, belonging and depression in some older people with dementia.

Chan MF, Chan EA, Mok E, Kwan Tse FY,(2009),Singapore conducted the study to determine the effect of music listening on depression levels in elderly people. A randomized controlled study was conducted with 47 elderly people (23 using music and 24 controls) who completed the study after being recruited in Hong Kong. Blood pressure, heart rate (HR), respiratory rate (RR), and depression level variables were collected. In the music group, there were statistically-significant decreases in depression scores (P < 0.001) and blood pressure (P = 0.001), HR (P < 0.001), and RR (P < 0.001) after 1 month. The implication is that nurses may utilize music as an effective nursing intervention for patients with depressive symptoms in the community setting.

Christian R. Mille and Fabien D. Legrand,(2009),**France**, conducted a study to investigate the effects of training frequency on psychological benefits resulting from a walking program among older women with sub syndromal depression. All participants were randomly assigned to a 4 week long self paced walking program including 1(G_1) or 3 to 5(G_{3-5}) weekly sessions. They used Geriatric Depression Scale as a measure of depressive symptoms before and after intervention. Results shows that greater proportion of women in G_{3-5} reported GDS values below the cut off score of 10 compared to women in G1(5 of 6 *vs.* 1 of 6; $\Phi^2 = 0.48$; $p < .05$). The GDS scores after treatment were significantly lower than baseline scores in both groups ($Z = 2.20$; $p < .03$, and $Z = 1.99$; $p < .05$ respectively), but the mean decrease of depressive symptoms was significantly larger in G_{3-5} (48.9%) than in G_1 (22.7%). Breaking 60 min of weekly walking into shorter periods on 3–5 days a week appears to be more effective to alleviate depressive symptoms in older women with subsyndromal depression.

Janet Buckworth and I. Hua Chu.et.al.,(2009),USA conducted a study to assess the effect of exercise intensity on depressive symptoms in women.

Sedentary women scoring ≥14 on the Beck Depression Inventory-II (BDI-II) were randomized to one of two aerobic training groups that differed on exercise intensity or to a stretching control group for 10 weeks. Main outcome variables included depressive symptoms (BDI-II) and self-efficacy and depression coping self-efficacy ,which were measured at study entry, 5 and 10 weeks later. Participants in all groups (high, $n = 18$; low, $n = 18$; stretching, $n = 18$) had significant reductions in depressive symptoms at Week 5 ($p < .001$) and Week 10 ($p < .001$). The BDI-II change scores did not differ significantly among the groups ($p = .066$). Thus the researcher concluded that both high and low intensity aerobic exercise, as well as stretching exercise was associated with reductions in mild to moderate depressive symptoms.

T.Rantanen and L.Timonen.et.al.,(2002) conducted a study to determine the effects of a group exercise training program on mood. An experimental study was conducted with 68 women (mean age 83.0, SD 3.9 years) who have hospitalized due to an acute illness. The participants were randomized in to group based 10 week strength training intervention (N=34) and home exercise control(N=34) groups.24 women in the training and 28 in the control group completed the follow-up. Zung Self-Rating Depression Scale were performed before and after the training intervention. After the intervention, there was a significant improvement in mood in the intervention group compared to the home exercise control group: -3.1(SD 9.0) points vs +1.3 (SD 7.6) points (p=0.048) and the positive effect was still apparent three months after the intervention is ceased. So group based exercise program organized to improve the mood.

Hassmen, Koivula, and Uutela,(2000), conducted the study to assess an inverse association between physical activity and depressive symptoms. The random sample of 1,547 males (46 ± 10.9 years) and 1,856 females (45.5 ± 11.3 years)were selected and, reported a significant inverse association between depressive symptoms as measured by the Beck Depression Inventory and six levels of self-reported exercise frequency ranging from daily to a few

times per year. In this study, those who exercised at least twice per week reported significantly less depression compared to those who exercised either less frequently or not at all.

Karen M. Clements and Nalin A. Singh.et.al.,(1999), Australia, conducted a study with the aim to test the feasibility and efficacy of unsupervised exercise as a long-term treatment for clinical depression in elderly patients. 32 subjects (71.3 ± 1.2 years of age, mean ± SE) in a 20-week, randomized, controlled trial, with follow-up at 26 months. Blinded assessment was made with the Beck Depression Inventory (BDI), the Philadelphia Geriatric Morale Scale, and Ewart's Self Efficacy Scale at 20 weeks and with the BDI and physical activity questionnaire at 26 months. Exercisers engaged in 10 weeks of supervised weight-lifting exercise followed by 10 weeks of unsupervised exercise. Controls attended lectures for 10 weeks. Patients randomized to the exercise condition completed 18 ± 2 sessions of unsupervised exercise during Weeks 10 to 20. The BDI was significantly reduced at both 20 weeks and 26 months of follow-up in exercisers compared with controls ($p < .05–.001$).

James A. Blumenthal, PhD and Michael A. Babyak, PhD.et.al.,(1999),USA conducted a study to assess the effectiveness of an aerobic exercise program compared with standard medication for treatment of Major Depressive Disorder in older patients, we conducted a 16-week randomized controlled trial. One hundred fifty-six men and women with MDD (age, ≥50 years) were assigned randomly to a program of aerobic exercise, antidepressants or combined exercise and medication. Subjects were assessed by Hamilton Rating Scale for Depression (HAM-D) and Beck Depression Inventory (BDI) scores before and after treatment. After 16 weeks of treatment, the groups did not differ statistically on HAM-D or BDI scores ($P = .67$). Growth curve models revealed that all groups exhibited statistically and clinically significant reductions on HAM-D and BDI scores. An exercise training program may be considered an alternative to antidepressants for treatment of depression in older persons.

SECTION:C STUDIES RELATED TO GROUP PHYSICAL ACTIVITY ON ANXIETY AMONG SENIOR CITIZENS

Sung HC, Chang AM, Lee WL,(2010), **Taiwan** conducted the study to evaluate a preferred music listening intervention for reducing anxiety in older adults with dementia in nursing homes. A quasi-experimental pretest and posttest design was used. Twenty-nine participants in the experimental group received a 30-minute music listening intervention based on personal preferences delivered by trained nursing staff in mid-afternoon, twice a week for six weeks. Meanwhile, 23 participants in the control group only received usual standard care with no music. Anxiety was measured by Rating Anxiety in Dementia at baseline and week six. Analysis of covariance results indicated that older adults who received the preferred music listening had a significantly lower anxiety score at six weeks compared with those who received the usual standard care with no music ($F = 12.15$, $p = 0.001$).

Roger T. Couture and Jochen Bocksnick, (2004), study examined the effects of a brisk walk on somatic state anxiety with older physically fit women. Forty volunteers (age $M = 68$, $SD = 5.3$) were randomly assigned to two groups. They also completed a Physical Activity Readiness Questionnaire to confirm that they were physically and medically capable of doing a brisk walk. Participants were randomly assigned to a control or an experimental group. In total, forty volunteers (age range 60 - 78 years, $M = 68 + 5.3$ years) participated in this study.The experimental group walked for 20 minutes while a control group sat near an indoor running track. The experimental group was less somatically anxious after the walk than after a restful sitting period. Twenty minutes after the walk, the experimental group showed higher levels of peripheral digital temperature. No significant differences were noticed in state anxiety. This study suggests that a brisk walk will have positive lasting effects on somatic anxiety.

Doric-Henry, L. (1997),Conducted the study to assess the pottery as art therapy with elderly nursing home residents. An art therapy intervention using

an eight-session pottery class based on Eastern Method throwing technique was implemented with 20 elderly nursing home residents, with the aim of improving their psychological well-being. a quasi-experimental design measuring the participants‘ self-esteem , depression (Beck Depression Inventory,)and anxiety (State-Trait Anxiety Inventory,) compared with 20 nonparticipating elderly residents of the nursing home. Qualitative evaluation included client self-evaluations , case progress notes, journal notes, and photographs. Following the intervention, the participating group showed significantly improved measures of self-esteem, and reduced depression and anxiety at posttest ($p < .05$) relative to the comparison group. However, it should be noted that those with high self-esteem and low anxiety at the beginning of the study did not make significant gains; conversely, those with low self-esteem and high anxiety, pre-intervention, benefited the most.

SECTION:D STUDIES RELATED TO GROUP PHYSICAL ACTIVITY ON WELL BEING AMONG SENIOR CITIZENS

Nuria Garatachea,(2007), Spain conducted a study to investigate in a sample of Spanish elderly whether measures of physical activity and physical function are related to feelings of well being. The sample was a cohort of 151 elderly people (89 women and 62 men, aged 60–98 years) from the North of Spain.Participants completed surveys including demographic characteristics, and measures of physical activity (Yale Physical Activity Survey, YPAS), instrumental activities of daily living (Barthel Index, BI) and well being (Psychological Well Being Scale).Components of the physical function were measured by the Senior Fitness Test (SFT). Upper and lower body strength, dynamic balance, aerobic endurance, self-reported weekly energy expenditure and physical activity total time were significantly correlated with both Material and Subjective well being. In conclusion, physical function and physical activity are related to feelings of well being, and results emphasize the positive functional and psychological effects of physical activity in dependent subjects.

M J M Chin A Paw.et.al., (2002), conducted a study to examine the effects of 17 weeks of physical exercise and micronutrient supplementation on the psychological wellbeing of 139 independently living, frail, elderly subjects. Participants (mean (SD) age 78.5 (5.7)) were randomly assigned to: (a) comprehensive, moderate intensity, group exercise; (b) daily micronutrient enriched foods (25–100% recommended daily amount); (c) both; (d) neither. At baseline, moderate to low but significant correlations were found between general wellbeing scores and physical fitness ($r = 0.28$), functional performance ($r = 0.37$), and blood concentrations of pyridoxine ($r = 0.20$), folate ($r = 0.25$), and vitamin D ($r = 0.23$) (all p values ≤ 0.02), but not with physical activity levels and other blood vitamin concentrations. General wellbeing score and self rated health were not responsive to 17 weeks of exercise or nutritional intervention. Psychological wellbeing in frail elderly people was not responsive to 17 weeks of intervention with exercise and/or micronutrient enriched foods.

Dr.Kenneth R Fox,(1999), **Britan** conducted the study to investigate evidence for physical activity and dietary interactions affecting mental well-being. The research used for this study was narrative review and summary. Sufficient evidence now exists for the effectiveness of exercise in the treatment of clinical depression. xercise has a moderate reducing effect on state and trait anxiety and can improve physical self-perceptions and in some cases global self-esteem. Also there is now good evidence that aerobic and resistance exercise enhances mood states, and weaker evidence that exercise can improve cognitive function (primarily assessed by reaction time) in older adults. Conversely, there is little evidence to suggest that exercise addiction is identifiable in no more than a very small percentage of exercisers. Together, this body of research suggests that moderate regular exercise should be considered as a viable means of treating depression and anxiety and improving mental well-being in the general public.

CHAPTER – III

METHODOLOGY

Methodology of study includes approach and design of the study, setting of the study, population, criteria for sampling sample size, instrument and scoring procedure, developing and testing of the tool, method of data collection and plan for data analysis.

RESEARCH APPROACH

The research approach selected was evaluative approach, for evaluating the effectiveness of group physical activity on depression , anxiety and well being among senior citizens.

RESEARCH DESIGN

The research design selected for the study was pre experimental one group pretest post test design.

Group	Pre test	Intervention	Post test
Group I	O_1	X	O_2

Collection of demographic data

O_1 - Assessment of the level of depression, anxiety and well being among senior citizens in pretest.

X - Group physical activities such as walking, exercise, art, games and listening to music to senior citizens.

O_2 - Assessment of the level of depression, anxiety and well being among senior citizens in post test.

RESEARCH SETTING

The study was conducted in The little Sister of the poor home for the aged at Thindal, Erode. There are 135 residents in the old age home among them 77 are females and 58 are males and the senior citizens those who are not

having any body and neglected by their childrens can be admitted in this old age home. The residence in old age home is free of cost and it is run by funds from foreign and donations.There are separate wings for males and female residents, twelve rooms for male and 12 rooms for females. Each room can accommodate 4 residents. It has separate bath rooms and toilets for every 4 rooms and there are 6 rooms for chronically ill senior citizens. It also has a well furnished dinning hall attached with kitchen which can accommodate 110 members at a time. A good well ventilated chapel is being situated at the centre of the home. A first aid room with adequate medications, and a consultation room for doctor's visit is also present. It has a recreational hall with television and DVD player and can accommodate 100 peoples. There is also a telephone room, and laundry room and a separate room for visitors. Around the home there is a garden with seating stones which has even road paths for the senior citizens to walk and corridors are also available inside the old age home.

POPULATION

The target population selected for the study were Senior citizens.

SAMPLE

Sample were senior citizens in the old age home, Thindal.

CRITERIA FOR SAMPLE SELECTION

INCLUSION CRITERIA

1. Senior citizens between 60 to 75 years.
2. Both male and female Senior citizens.
3. People who are able to understand Tamil.

EXCLUSION CRITERIA

1. People who are having hearing loss, visual impairement.

2. People who are chronically ill and bed ridden.

3. People who are not willing to participate in the study.

SAMPLE SIZE

A sample of 100 senior citizens who met the inclusion criteria were selected for the study.

SAMPLING TECHNIQUE

Purposive sampling technique was used to select the samples for the study.

DESCRIPTION OF THE INSTRUMENT

Instrument consists of four parts

PART – I

It consists of demographic variables of Senior citizens such as age, sex, religion, marital status, educational status, duration of stay in the old age home, number of children, reasons for residing in old age home, supportive system, nature of admission to old age home, previous occupation, current source of income, visit by family members, and hobbies.

PART – II

Geriatric Depression Scale (Lenore Kurlowicz, PhD, RN, CS 1999)It is a checklist consists of 30 questions out of which 20 questions are positive items and 10 questions are negative items.

PART – III

Geriatric Anxiety Inventory (Scheier, et.al.,1994) It is a checklist consists of 20 questions with options True or False.

PART – IV

Modified well being scale (National Center for Health Statistics 2005) was used to assess the wellbeing of senior citizens. It is a 5 point rating scale consists of 14 statements which has 7 positive and 7 negative statements.

SCORING PROCEDURE AND INTERPRETATION

PART-II Geriatric Depression Scale

The highest possible score for the scale was 30 out of which 10 questions have negative scoring (Yes=0, No=1) and 20 questions have positive scoring (Yes=1, No=0) and are interpreted as follows;

LEVELS OF DEPRESSION	SCORE	PERCENTAGE %
No depression	0-9	0 – 33
Mild Depression	10-19	34- 66
Severe Depression	20-30	67-100

PART-III

Geriatric Anxiety Inventory

Total score was 20, for each true answers, score 1 was given and for negative answer a score of '0' was given. It was interpreted as follows;

LEVELS OF ANXIETY	SCORE	PERCENTAGE %
No Anxiety	0-9	0-49
Anxiety	10-20	50-100

PART-IV

Modified Well Being Scale

The total possible score was 70. For the positive statements the score was given as 5-All the time, 4-Most of the time, 3-A good bit of the time, 2-Some of the time, 1-A little of the time, and 0-None of the time and for the negative statements the score was given as 0-All the time, 1-Most of the time, 2-A good bit of the time, 3-Some of the time, 4-A little of the time, and 5-None of the time and it was interpreted as follows,

WELL BEING	SCORE	PERCENTAGE %
Positive well being	54-70	77-100
Mild distress	36-53	51-76
Moderate distress	18-35	25-50
Severe distress	0-17	0 - 24

VALIDITY OF THE TOOL

The content validity of the tool was established in consultation with one psychiatrist, one Psychologist and from experts in Psychiatric Nursing. No modifications were done.

RELIABILITY OF THE TOOL

The reliability of the Geriatric depression scale, Geriatric anxiety inventory and Modified well being scale was established by testing equivalence and internal consistency. Inter rater method was used to assess the equivalence where the Karl Pearson's formula was used and found to be reliable(r=0.9) for Geriatric depression scale, (r=0.8) for Geriatric anxiety inventory and (r=0.96) for Modified well being scale. Internal consistency was assessed by using split half method where Spearman's Brown prophecy was used. The value was found to be reliable (r=0.97) for Modified well being scale.

PILOT STUDY

The pilot study was conducted in St. Joseph's Home for Aged, Dharapuram for a period of two weeks. The investigator obtained permission from the head of the institution and from the participant prior to the study. The purpose of the study was explained to the subjects. 10 samples were taken for the pilot study by using purposive sampling technique.

On the first day the demographic variable were collected by structured interview schedule then pre test was conducted to the participants by using Geriatric Depression Scale, Geriatric Anxiety Inventory, and Modified well being scale was used to assess the level of depression, anxiety and well being. Selected group physical activities like walking, exercise, art therapy, listening to music and games were given for 15 days. These group physical activities were supervised by the investigator every day. On the 16th day post test was conducted and the result showed that the mean pretest scores of level of depression was 17.3(SD$\pm$1.79) and the mean post test scores of level of depression was 8.3(SD$\pm$2.238). So the mean post test scores of level of depression was lower than the mean pretest scores of level of depression. The paired `t` test showed that there was a significant difference between pre test and post test scores of level of depression among senior citizens t = 3.080(table value= 2.262)at(P> 0.05)level. The mean pretest scores of level of anxiety was 12(SD$\pm$0.89) and the mean post test scores of level of anxiety was 6.9(SD$\pm$1.044). So the mean post test scores of level of anxiety was lower than the mean pretest scores of level of anxiety. The paired't' test value was t=3.042(table value=2.262) significant at (P<0.05)level. The mean pretest scores of level of well being was 39.1(SD$\pm$9.575) and the mean post test scores of level of well being was 51.8(SD$\pm$7.166). So the mean post test scores of level of well being was higher than the mean pretest scores of level of well being. The paired't' test value was t=2.98(table value=2.262) significant at (P<0.05)level. The pilot study revealed that it is feasible and practicable to conduct the main study.

DATA COLLECTION PROCEDURE

The main study was conducted in The Little sister of the poor home for the aged at Thindal. The data collection period was for 5 weeks. The investigator obtained written permission from the head of the institution and oral consent was obtained from each samples after explaining to the subjects. The samples were selected by using purposive sampling technique.

The first 5 days was used for pre test. For each person about 5 minutes was used to collect the demographic variables. The geriatric depression scale was used to assess the level of depression, geriatric anxiety inventory was used to assess the level of anxiety for and well being scale was used to assess the level of well being. The pretest was conducted for 40 minutes per person. The data was collected 20 members per day. After pre test, the study participants were divided into 4 groups and for group I & II walking for 30mins and exercise for 20mins were given in the morning from 6.00 am to 8.00 am and for the group III and IV walking and exercise were given in the evening from 4.00 pm to 6.00 pm. The art therapy for 30 minutes for group I & II were given from 10.00am to 10.30 am and for the group III & IV it were given from 10.30am to 11.00am and it was conducted based on their own interest using coloring the papers, using color pencil, and water color etc. and the games and listening to music were conducted for 45 minutes for group I&II from 3.00pm to 3.45pm and for the group III & IV from 6.00 to 6.45pm which includes indoor games like cards, chess, carrom, snake and ladder for 28 days. The post test was conducted on the 29th day . The collected data were analysed and tabulated.

PLAN FOR DATA ANALYSIS

The data collected was analyzed by using descriptive and inferential statistics. The statistical methods used to analyse the data were as follows.

S. No	Data Analysis	Method	Purpose
1.	Descriptive statistics	Frequency percentage	To describe the demographic variables of senior citizens.
		Mean, standard deviation	To assess the pretest and post test level of depression among senior citizens.

			To assess the pretest and post test level of anxiety among senior citizens.
			To assess the pretest and post test level of well being among senior citizens.
2.	Inferential statistics	Paired 't' test	To compare the pretest and post test scores of level of depression among senior citizens.
			To compare the pretest and post test scores of level of anxiety among senior citizens.
			To compare the pretest and post test scores of level of well being among senior citizens.
		'Chi' square test	To find association between post test scores of level of depression among senior citizens with their selected demographic variables.
			To find association between post test scores of level of anxiety among senior citizens with their selected demographic variables.
			To find association between post test scores of level of wellbeing among senior citizens with their selected demographic variables.

PROTECTION OF HUMAN SUBJECTS

The research proposal was approved by the dissertation committee. A written permission was obtained from the head of the institution, and oral consent was obtained from each participants after explaining the purpose of the study before collecting the data.

CHAPTER-IV

DATA ANALYSIS AND INTERPRETATION

This chapter deals with the description of sample, characteristics, analysis and interpretation of data collected from The Little Sister of the poor home for the aged at Thindal.

The present study was conducted to assess the effectiveness of group physical activity to reduce depression, anxiety and improving well being among senior citizens in The Little Sister of the poor home for the aged at Thindal.

The collected data were calculated, analyzed using descriptive and inferential statistics and interpreted as per the objectives of the study, under the following headings.

ORGANIZATION OF THE DATA

The data has been tabulated and organized as follows

SECTION-A : Distribution of demographic variables.

SECTION-B : Assess the pre and post test level of depression among senior citizens

SECTION-C : Assess the pre and post test level of anxiety among senior citizens

SECTION-D : Assess the pre and post test level of well being among senior citizens

SECTION-E : Comparison of pre and post test scores of level of depression among senior citizens

SECTION-F : Comparison of pre and post test scores of level of anxiety among senior citizens

SECTION-G : Comparison of pre and post test scores of level of well being among senior citizens

SECTION-H : Find the association between post test scores of level of depression among senior citizens with their selected demographic variables.

SECTION-I : Find the association between post test scores of level of anxiety among senior citizens with their selected demographic variables.

SECTION-J : Find the association between post test scores of level of well being among senior citizens with their selected demographic variables

SECTION- A: DISTRIBUTION OF DEMOGRAPHIC VARIABLES

Table: 1 – Frequency and percentage distribution of demographic variables among senior citizens.

n = 100

S. no	Demographic variables	Frequency	Percentage %
1.	Age in years		
	1. 60-63 years	7	7
	2. 64-67 years	13	13
	3. 68-71years	37	37
	4. 72-75years	43	43
2.	Sex		
	1. Male	42	42
	2. Female	58	58
3.	Religion		
	1. Hindu	33	33
	2. Muslim	-	-
	3. Christian	67	67
	4. Others	-	-
4.	Marital status		
	1. Single	11	11
	2. Married	22	22
	3. Widow/ Widower	67	67
	4. Divorce	-	-
5.	Educational status		
	1. No formal education	28	28
	2. Primary education	37	37
	3. High school education	32	32
	4. Higher secondary education	3	3
	5. Graduate	-	-

6.	Duration of stay in the old age home		
	1. 1 – 5years	34	34
	2. 6 – 10 years	42	42
	3. 11-15 years	21	21
	4. 15 years and above	3	3
7.	Number of children		
	1. No children	33	33
	2. One child	11	11
	3. Two children	17	17
	4. More than 2 children	39	39
8.	Reason for residing in the old age home		
	1. No children		
	2. Neglect of family	20	20
	3. Other problem	60	60
		20	20
9	Supportive system		
	1. Family members	35	35
	2. Neighbours	3	3
	3. Friends	-	-
	4. None	62	62
10	Nature of admission to old age home		
	1. Voluntary	91	91
	2. Forced by children	4	4
	3. Others	5	5
11	Previous occupation		
	1. Coolie	63	63
	2. Business	14	14
	3. Government employee	4	4
	4. Private employee	4	4
	5. House wife	15	15

12	Current source of income		
	1. Pension	1	1
	2. Children	16	16
	3. Others	5	5
	4. No	78	78
13	Visit by family members		
	1. Regularly	1	1
	2. Occasionally	41	41
	3. Never	58	58
14	Hobbies		
	1. Reading books and news paper	20	20
	2. Watching TV	23	23
	3. Chatting with friends	14	14
	4. None	43	43

Table: 1 showed that distribution of subject according to demographic variables.

Highest percentage 43(43%) of the senior citizens were in the age group of 72 -75 years, 37 (37%) belonged to the age group of 68-71 years. However, least percentage 13(13%) of senior citizens were in the age group of 64-67 years and 7(7%) belonged to the age group of 60-63 years respectively (fig.2).

Regarding sex most of them 58(58%) were females and 42(42%) were male (fig.3).

Majority of 67(67%) senior citizens belongs to Christian and 33(33%) senior citizens belongs to Hindu (fig.4).

Regarding marital status most of them 67 (67%) were widow/widower, 22(22%) were married and 11(11%) were single (fig.5).

Regarding educational status most of them 37(37%) had primary education, 32(32%) had high school education, 28(28%) had no formal education and 3(3%) had higher secondary education (fig.6).

Regarding Duration of stay in the old age home most of them 42(42%) were staying for 6-10 years, 34 (34%) were staying for 1-5 years, 21(21%) for 11-15 years and 3(30%) were staying above 15 years (fig.7).

Regarding number of children most of them 39 (39%) were having more than two children, 33(33%) were having no children,17 (17%) were having two children and 11(11%) were having one child(fig.8).

Regarding reason for residing in old age home most of them 60(60%) got admitted due to neglect of the family, 20(20%) were having no children and 20(20%) were admitted due to other problems(fig.9).

Regarding supportive system most of them 62 (62%) were not getting any support from anyone, 35(35%) were getting support from their family members and 3 (3%) were getting support from their neighbours(fig.10).

Regarding nature of admission to old age home most of them 91 (91%) were admitted voluntarily, 4(4%) were admitted due to their children force and 5(5%) were by others(fig.11).

Regarding previous occupation most of them 63(63%) were coolie workers, 15(15%) were house wives, 14(14%) were business persons, 4(4%) were private employees and 4(4%) were government employees(fig.12).

Regarding current source of income 78(78%) were not having any income, 16(16%) were getting money from children, 5(5%) were supported by others and 1(1%) from pension(fig.13).

Regarding visit by family members most of them 58(58%) were not having anybody to meet them, and 41(41%) were visit by their family members occasionally and 1(1%) were visit by their family members regularly(fig.14).

Regarding hobbies most of them 43 (43%) were not having hobby, 23(23%) are interested to watch TV, 20(20%) were interested in reading books and news paper and 14(14%) were interested in chatting with friends(fig.15).

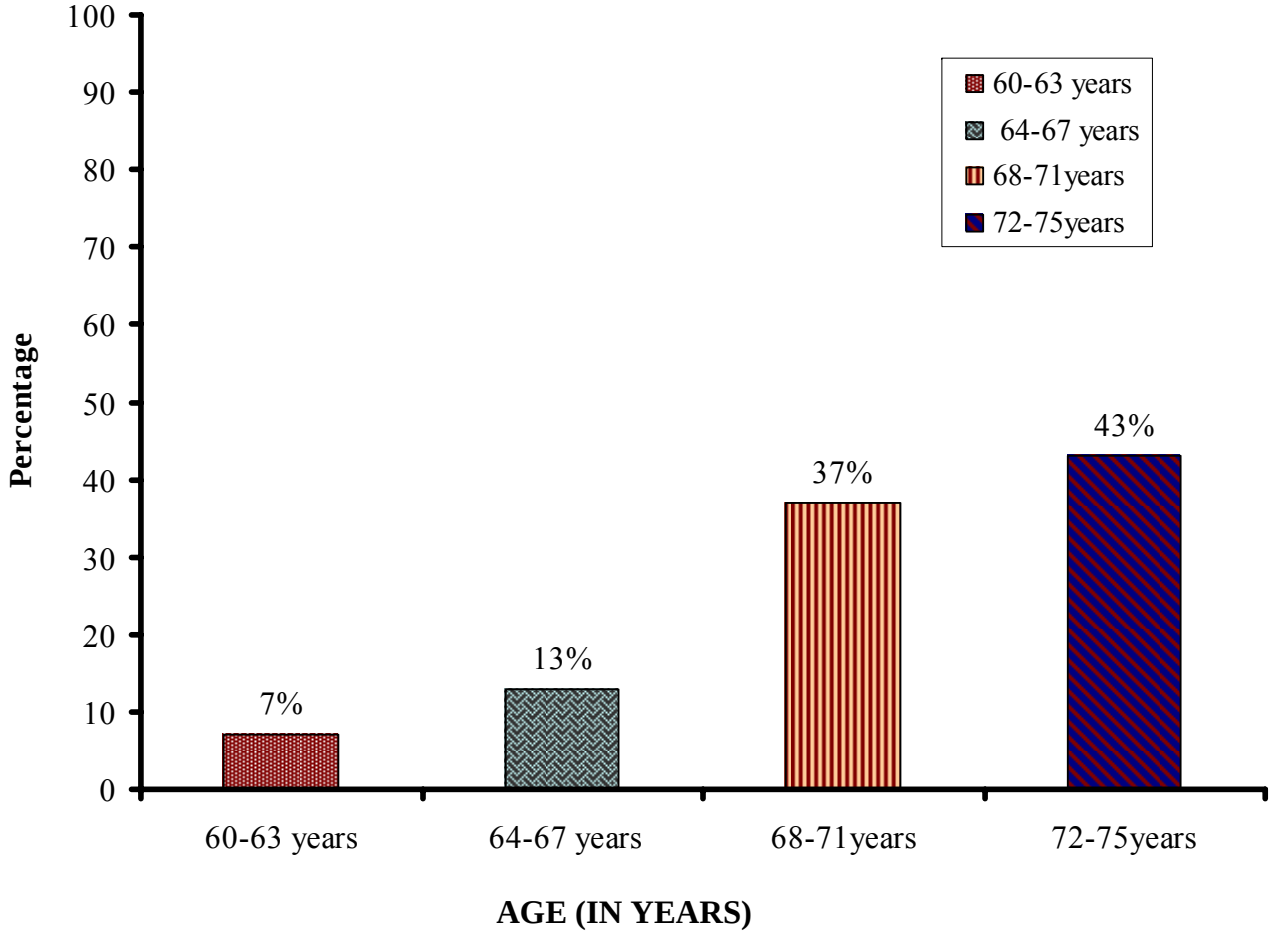
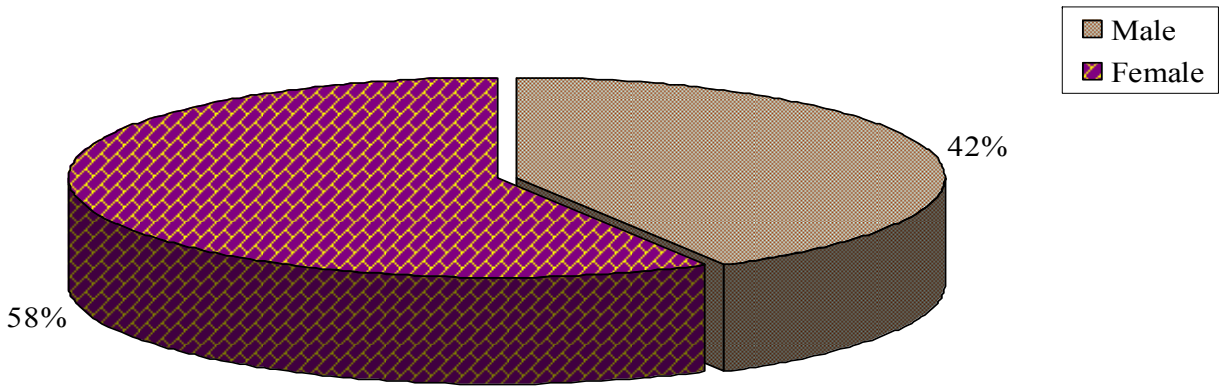


Fig:2 Percentage distribution of senior citizens according to their age



SEX

Fig:3 Percentage distribution of senior citizens according to their sex

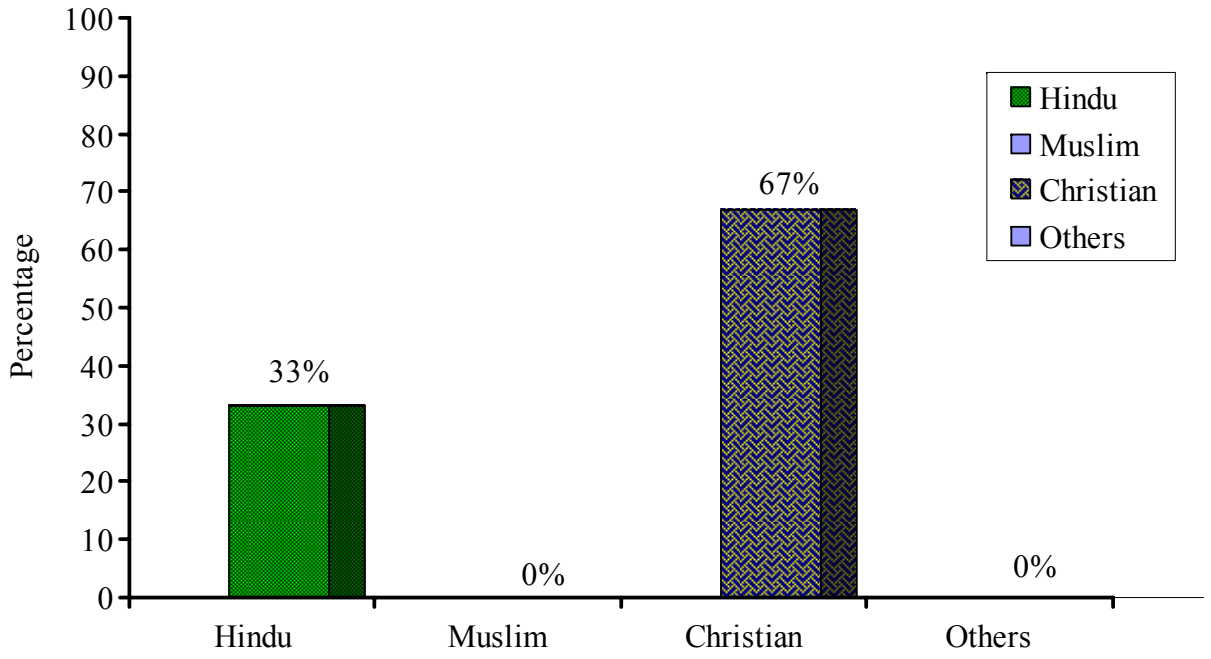


Fig:4 Percentage distribution of senior citizens according to their religion

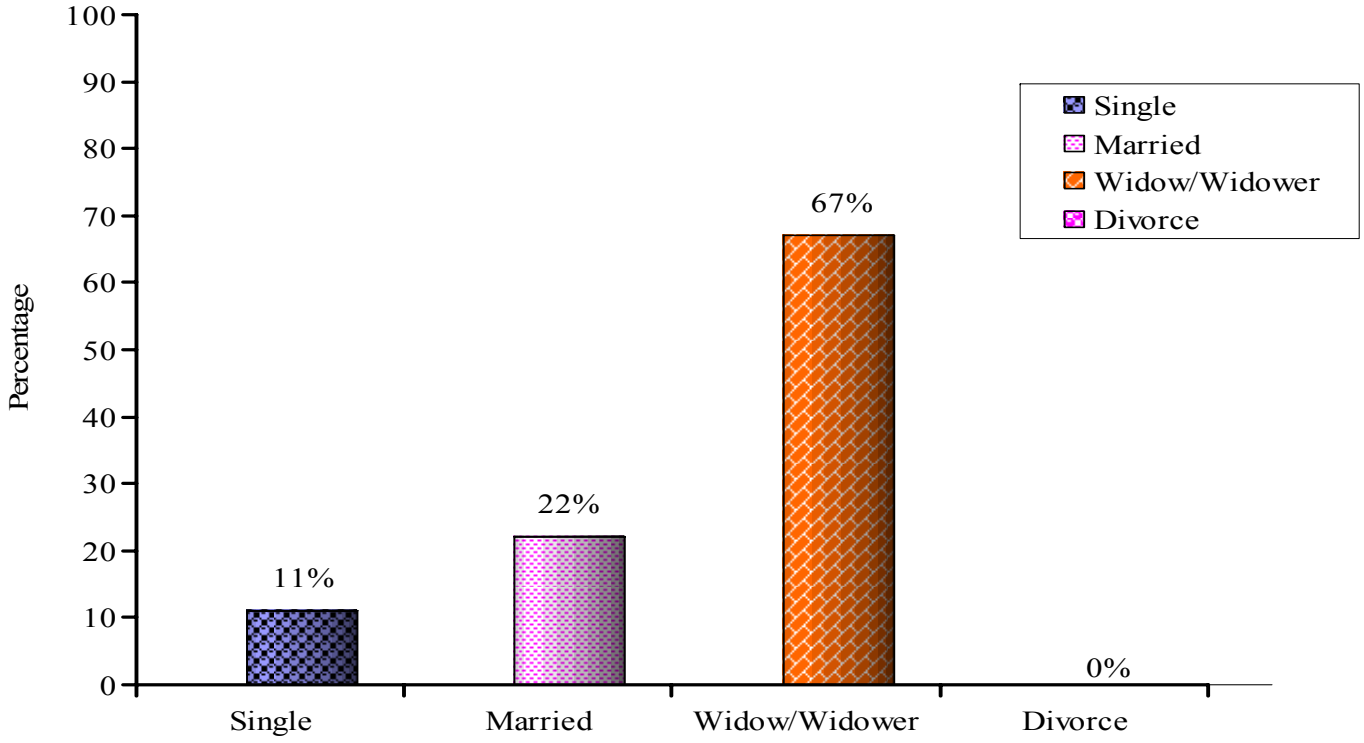


Fig:5 Percentage distribution of senior citizens according to their marital status

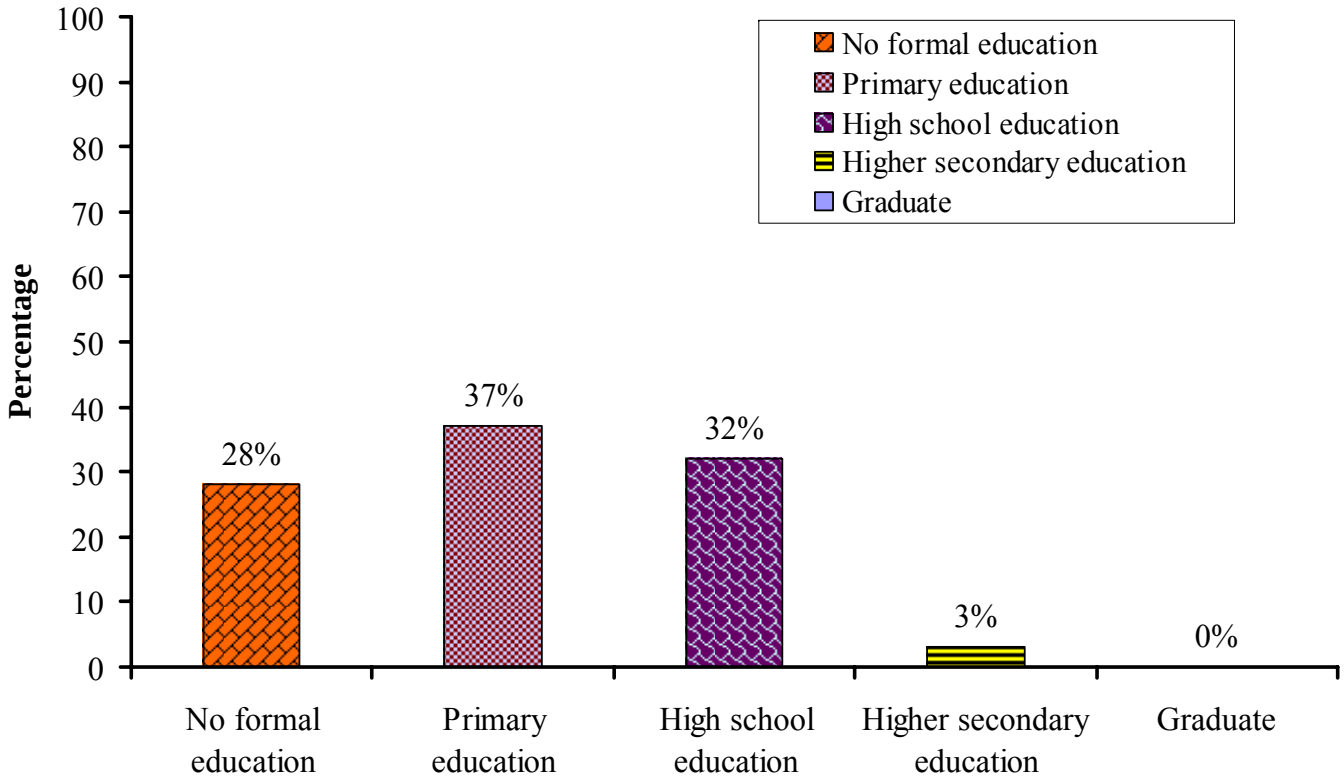


Fig: 6 Percentage distribution of senior citizens according to their educational status

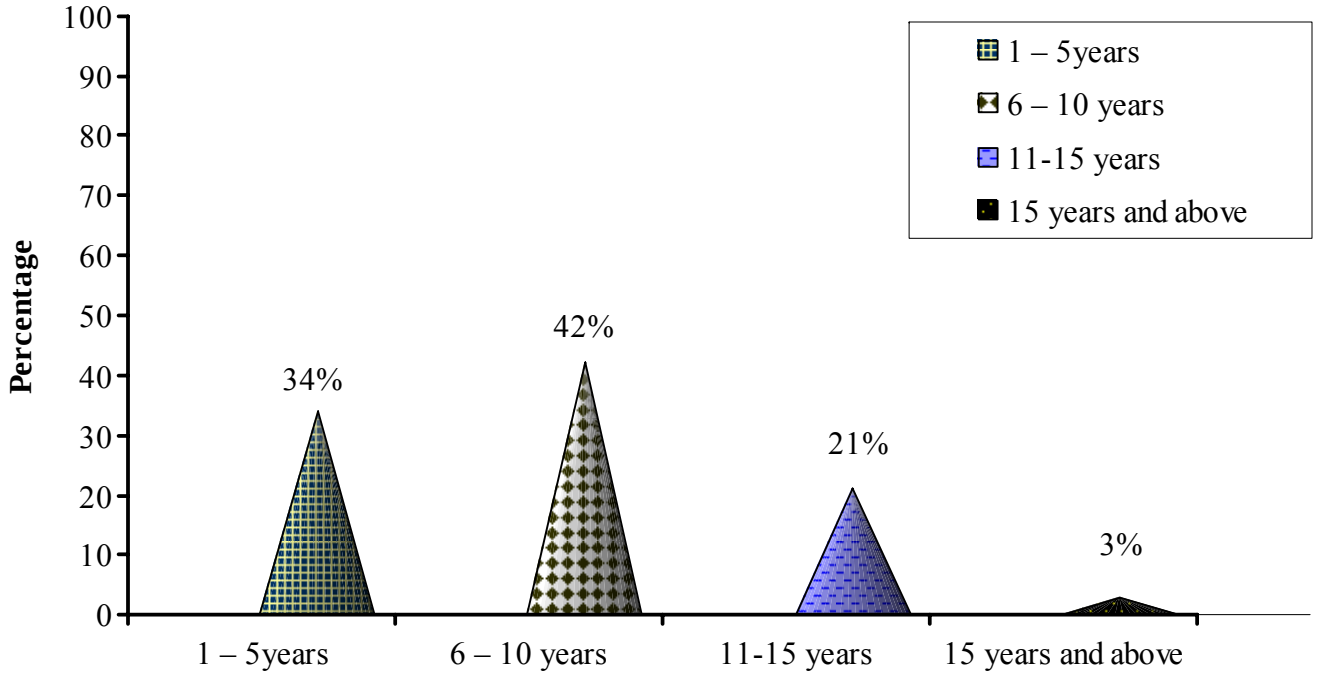


Fig: 7 Percentage distribution of senior citizens according to their duration of stay in the old age home

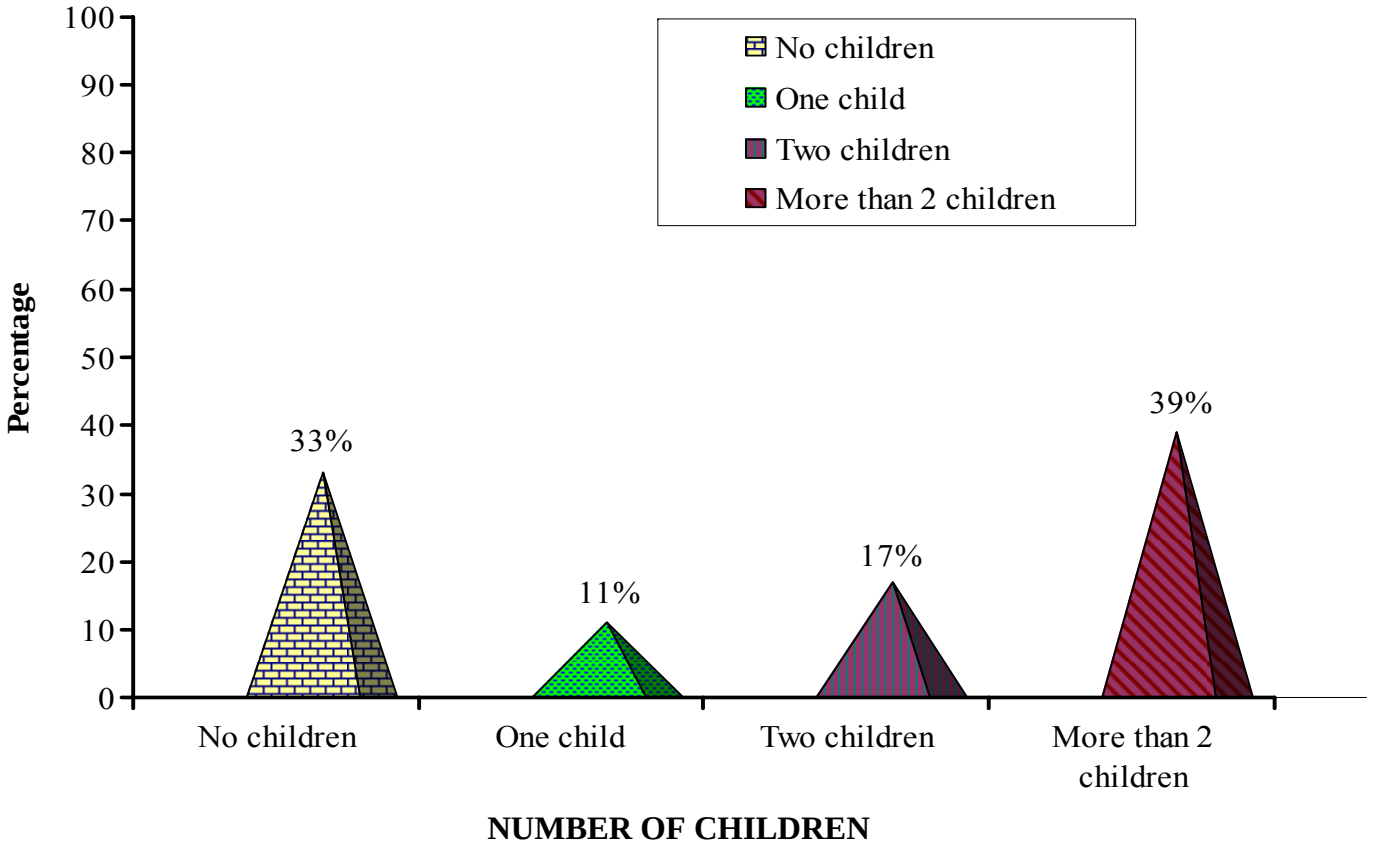


Fig: 8 Percentage distribution of senior citizens according to their number of children

REASON FOR RESIDING IN THE OLD AGE HOME

Fig: 9 Percentage distribution of senior citizens according to their reason for residing in the old age home

SUPPORTIVE SYSTEM

Fig: 10 Percentage distribution of senior citizens according to their supportive system

NATURE OF ADMISSION TO OLD AGE HOME

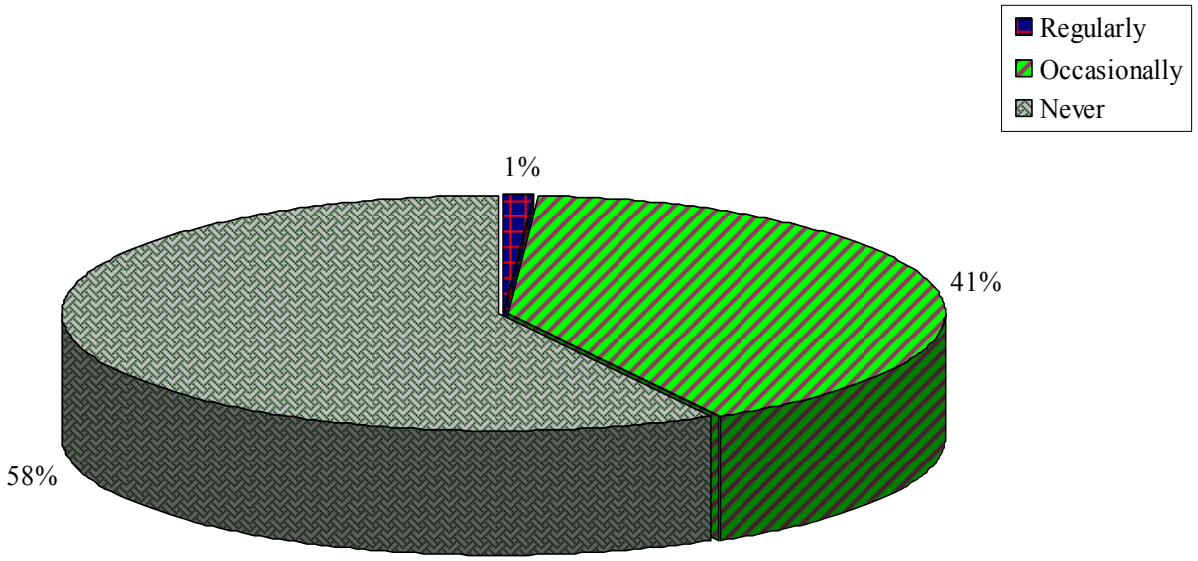
Fig: 11 Percentage distribution of senior citizens according to their nature of admission to old age home

PREVIOUS OCCUPATION

Fig: 12 Percentage distribution of senior citizens according to their previous occupation

CURRENT SOURCE OF INCOME

Fig: 13 Percentage distribution of senior citizens according to their current source of income



VISIT BY FAMILY MEMBERS

Fig: 14 Percentage distribution of senior citizens according to their visit by family members

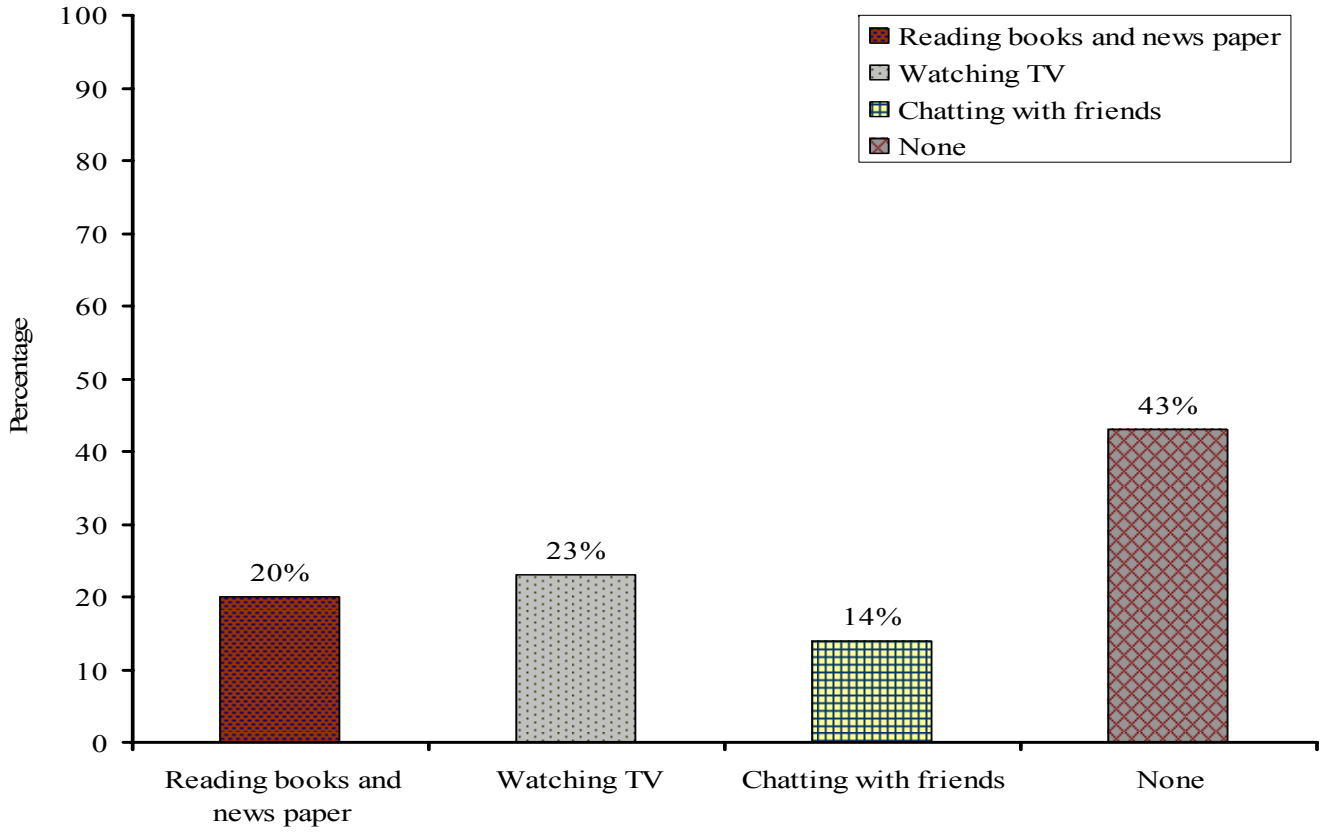


Fig: 15 Percentage distribution of senior citizens according to their hobbies

CITIZENS

Table: 2 Frequency and percentage distribution of pre test and post test scores of level of depression among senior citizens.

n=100

CATEGORY	PRE TEST		POST TEST	
	F	%	F	%
No depression	-	-	34	34
Mild depression	40	40	66	66
Severe depression	60	60	-	-
Total	100	100	100	100

Table: 2 depicts that the frequency and percentage distribution of pre test and post test level of depression among senior citizens. In pretest majority 60(60%) of senior citizens had severe depression, 40(40%) of senior citizens had mild depression and none of them had no depression. Where as in post test none of them had Severe depression, 66(66%) had moderate depression, and 34(34%) of them had no depression. It showed that most of them had severe depression in pretest and in post test it was reduced (fig.16).

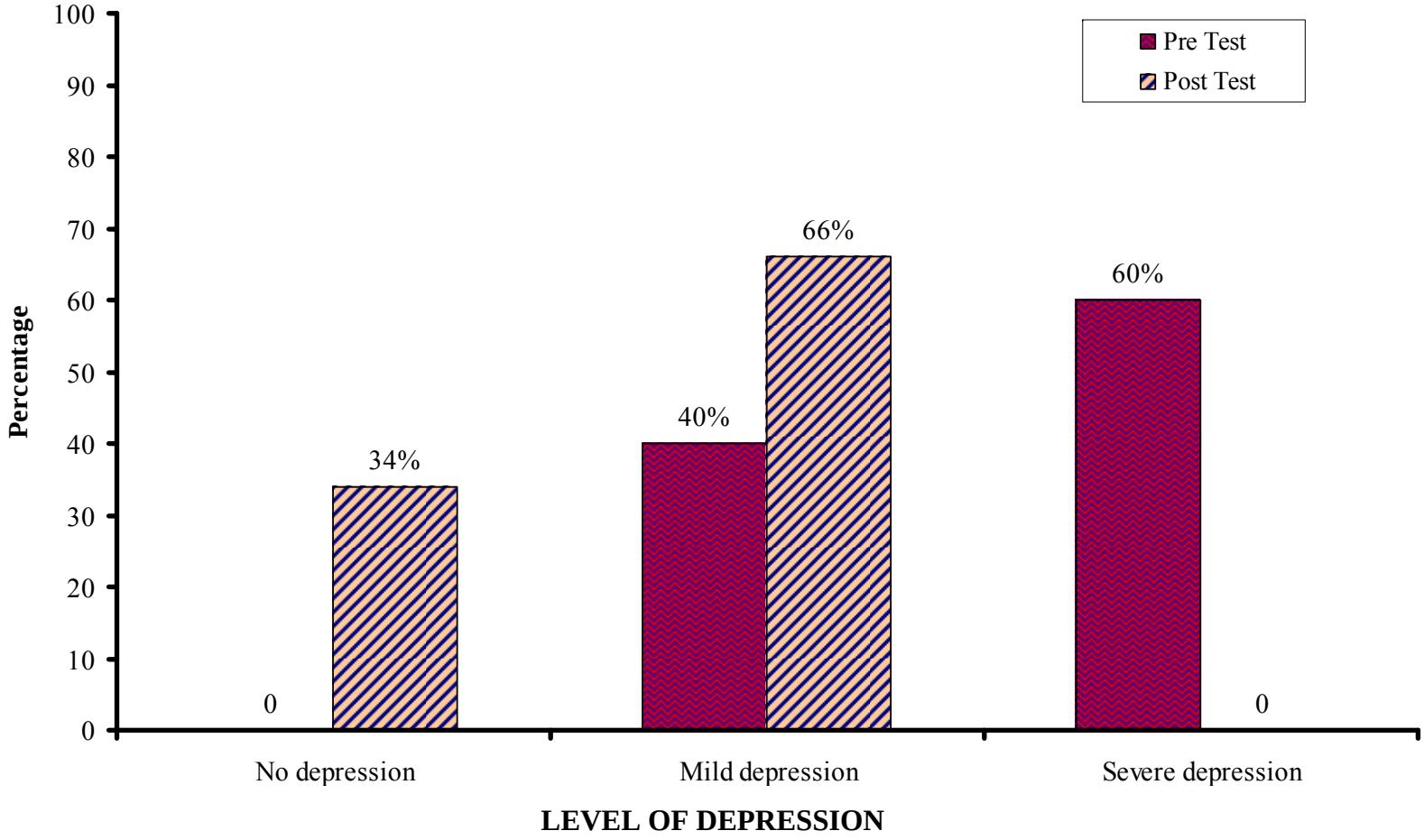


Fig: 16 Percentage distribution between pre test and post test scores of level of depression among senior citizens

SECTION- C: ASSESS THE PRE TEST AND POST TEST SCORES OF LEVEL OF ANXIETY AMONG SENIOR CITIZENS

Table: 3 Frequency and percentage distribution of pre test and post test scores of level of anxiety among senior citizens.

n=100

CATEGORY	PRE TEST		POST TEST	
	F	%	F	%
No anxiety (0-9)				
4-5	-	-	18	18
6-7	-	-	58	58
8-9	-	-	24	24
Anxiety (10-20)	100	100	-	-
Total	100	100	100	100

Table: 3 depicts that the frequency and percentage distribution of pre test and post test level of anxiety among senior citizens in pretest majority 100(100%) of senior citizens had anxiety, where as none of them had anxiety in post test. In no anxiety 18(18%) of senior citizens had scores between4-5, 58(58%) of senior citizens had scores between 6-7 and 24(24%) of them had scores between 8-9. It showed that most of them had anxiety in pretest and in post test none of them had anxiety (fig.17).

LEVEL OF ANXIETY

Fig: 16 Percentage distribution between pre test and post test scores of level of anxiety among senior citizens

SECTION- D: ASSESS THE PRE TEST AND POST TEST SCORES OF LEVEL OF WELL BEING AMONG SENIOR CITIZENS

Table: 4 Frequency and percentage distribution of pre test and post test scores of level of well being among senior citizens.

n=100

CATEGORY	PRE TEST		POST TEST	
	F	%	F	%
Positive well being	-	-	30	30
Mild distress	32	32	68	68
Moderate distress	66	66	2	2
Severe distress	2	2	-	-
Total	100	100	100	100

Table: 4 depicts that the frequency and percentage distribution of pre test and post test level of well being among senior citizens. In pretest majority 66(66%) of senior citizens had moderate distress, 32(32%) of senior citizens had mild distress and 2(2%) of senior citizens had severe distress and no one had positive well being. In post test 30(30%) of them had positive well being, 68(68%) had mild distress, 2(2%) had moderate distress, and none of them had severe distress. It showed that most of them had distress in pretest and in post test it was reduced and they had positive well being (fig.18).

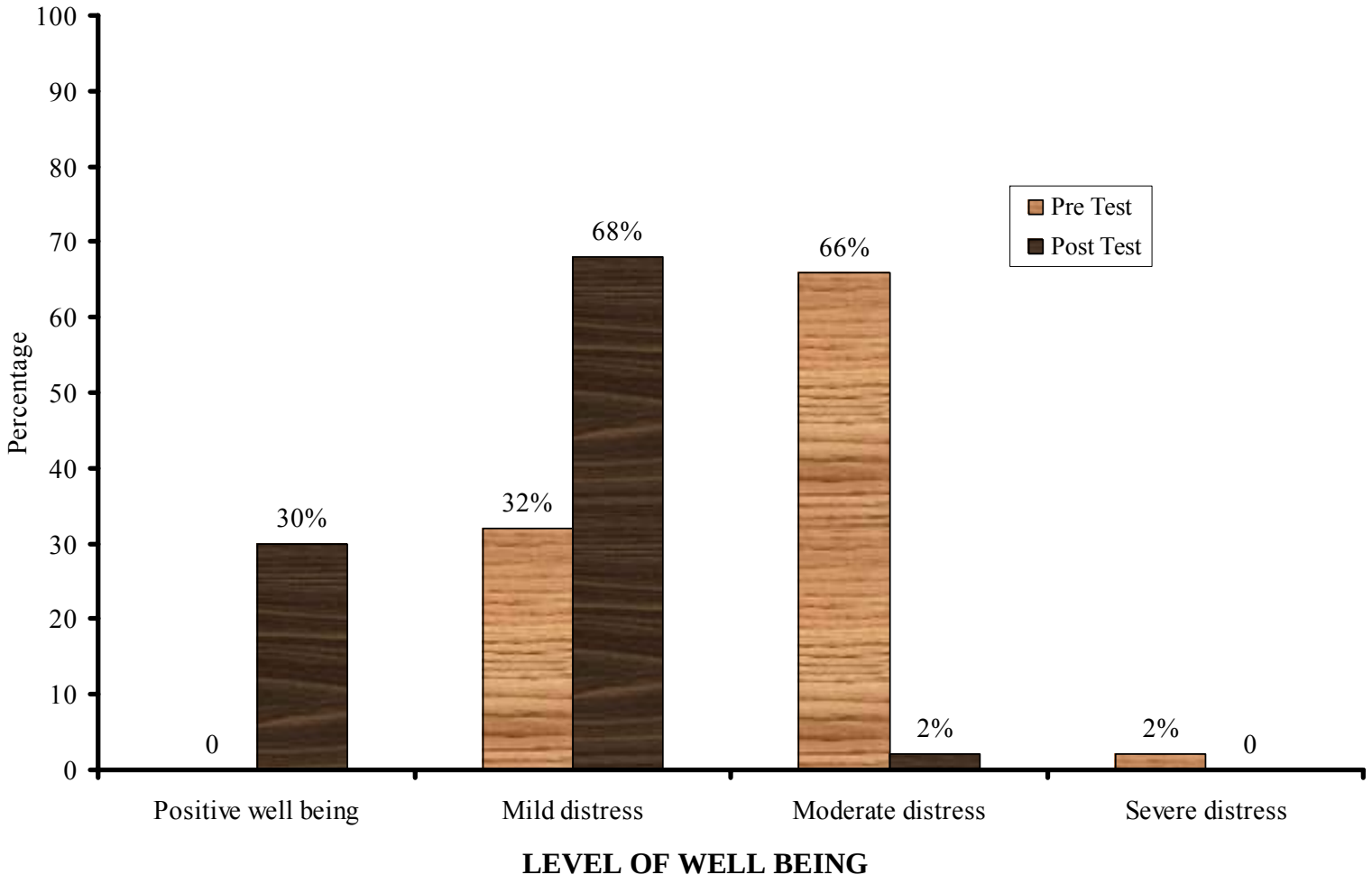


Fig: 16 Percentage distributions between pre test and post test scores of level of well being among senior citizens

SECTION- E: COMPARISON BETWEEN PRE TEST AND POST TEST SCORES OF LEVEL OF DEPRESSION AMONG SENIOR CITIZENS

Table 5: Comparison of mean, standard deviation, paired't'-value of pre test and post test scores of level of depression among senior citizens.

n=100

S. No	Variables	Mean	Standard deviation	Mean Difference	't' value	Table value
1.	Pre test	19.95	2.119	8.55	57	1.984
2.	Post test	11.4	2.391			

(df 99) = 1.984 P<0.05

Table: 5 depicts that mean pre test and post test scores of level of depression among senior citizens were 19.95 (SD±2.119) and 11.4 (SD±2.391) respectively. The post test mean scores were lower than the pre test mean scores. The mean difference was 8.55. The paired `t` test showed that there was a significant difference between pre test and post test scores of level of depression among senior citizens t = 57 at (P<0.05) level indicates the effectiveness of selected group physical activity on depression among senior citizens. So group physical activity was effective in reducing the depression among senior citizens.

SECTION-F: COMPARISON BETWEEN PRE TEST AND POST TEST SCORES OF LEVEL OF ANXIETY AMONG SENIOR CITIZENS

Table 6: Comparison of mean, standard deviation, paired't'-value of pre test and post test scores of level of anxiety among senior citizens.

n=100

S. no	Variables	Mean	Standard deviation	Mean Difference	't' value	Table value
1.	Pre test	12.22	1.15	5.62	44.009	1.984
2.	Post test	6.6	1.154			

(df 99) = 1.984 P<0.05

Table: 6 depicts that mean pre test and post test scores of level of anxiety among senior citizens were 12.22 (SD±1.15) and 6.6 (SD±1.154) respectively. The post test mean scores were lower than the pre test mean scores. The mean difference was 5.62. The paired `t` test showed that there was a significant difference between pre test and post test scores of level of anxiety among senior citizens t = 44.009 at (P<0.05) level which indicates the effectiveness of selected group physical activity on anxiety among senior citizens. So group physical activity was effective in reducing the anxiety among senior citizens.

SECTION-G: COMPARISON BETWEEN PRE TEST AND POST TEST SCORES OF LEVEL OF WELL BEING AMONG SENIOR CITIZENS

Table 7: Comparison of mean, standard deviation, paired't'-value of pre test and post test scores of level of well being among senior citizens.

n=100

S. no	Variables	Mean	Standard deviation	Mean Difference	't' value	Table value
1.	Pre test	33.09	5.249	12.85	31.11	1.984
2.	Post test	45.94	6.774			

(df 99) = 1.984 P<0.05

Table: 7 depicts that mean pre test and post test scores of level of well being among senior citizens were 33.09 (SD±5.249) and 45.94 (SD±6.774) respectively. The post test mean scores were higher than the pre test mean scores. The mean difference was 12.85. The paired `t` test showed that there was a significant difference between pre test and post test scores of level of well being among senior citizens t = 31.11 at (P<0.05) level which indicates the effectiveness of selected group physical activity on well being among senior citizens. So group physical activity was effective in improving the well being among senior citizens.

SECTION-H: FIND THE ASSOCIATION BETWEEN POST TEST SCORES OF LEVEL OF DEPRESSION AMONG SENIOR CITIZENS WITH THEIR SELECTED DEMOGRAPHIC VARIABLES

Table:8 n=100

S. No	Demographic variables	No depression		Mild depression		Calculated value χ^2	Table value	Inference
		F	%	F	%			
1.	**Age in yrs**							
	a)60-63 years	1	1	6	6			
	b)64-67 years	3	3	10	10	3.125	7.82	**NS**
	c)68-71 years	12	12	25	25		(df=3)	
	d)72-75 years	18	18	25	25			
2.	**Sex**							
	a)Male	14	14	28	28	0.012	3.84	**NS**
	b)Female	20	20	38	38		(df=1)	
3.	**Religion**							
	a)Hindu	11	11	22	22			
	b)Muslim	-	-	-	-	0.290	3.84	**NS**
	c)Christian	23	23	44	44		(df=1)	
	d)Others	-	-	-	-			
4.	**Marital status**							
	a)Single	5	5	6	6			
	b)Married	7	7	15	15	7.041	5.99	**S**
	c)Widow/ Widower	22	22	45	45		(df=2)	
	d)Divorce	-	-	-	-			

5.	**Educational status**							
	a)No formal education	10	10	18	18			
	b)Primary education	11	11	26	26			
	c)High school education	13	13	19	19	1.486	7.82 (df=3)	**NS**
	d)Higher secondary education	-	-	3	3			
	e)Graduate	-	-	-	-			
6.	**Duration of stay in old age home**							
	a)1-5 years	12	12	22	22			
	b)6-10years	16	16	26	26	2.157	7.82 (df=3)	**NS**
	c)11-15years	6	6	15	15			
	d)15years and above	-	-	3	3			
7.	**Number of children**							
	a)No children	11	11	22	22			
	b)One child	3	3	8	8	0.731	7.82	
	c)Two children	5	5	12	12		(df=3)	**NS**
	d)More than 2 children	15	15	24	24			
8.	**Reason for residing in the old age home**							
	a)No children	8	8	12	12			
	b)Neglect of family	24	24	36	36	6.415	5.99	**S**
	c)Other problem	2	2	18	18		(df=2)	
9.	**Support system**							
	a)Family member	9	9	26	26			
	b)Neighbours	1	1	2	2	1.6825	5.99	**NS**
	c)Friends	-	-	-	-		(df=2)	
	d)None	24	24	38	38			

10.	**Nature of admission to old age home**							
	a)Voluntarily	30	30	61	61			
	b)Forced by children	1	1	3	3	1.684	5.99	**NS**
	c)Others	3	3	2	2		(df=2)	
11.	**Previous occupation**							
	a)Coolie	20	20	43	43			
	b)Business	4	4	10	10			
	c)Government	1	1	3	3	7.047	9.49	**NS**
	employee						(df=4)	
	d)Private employee	-	-	4	4			
	e)House wife	9	9	6	6			
12.	**Current source of income**							
	a)Pension	1	1	-	-			
	b)Children	2	2	14	14	7.8201	7.82	**S**
	c)Others	-	-	5	5		(df=3)	
	d)No	31	31	47	47			
13.	**Visit by family members**							
	a)Regularly	-	-	1	1			
	b)Occasionally	15	15	26	26	0.665	5.99	**NS**
	c)Never	19	19	39	39		(df=2)	
14.	**Hobbies**							
	a)Reading books and	8	8	12	12			
	news paper							
	b)Watching TV	7	7	16	16	1.631	7.82	**NS**
	c)Chating with friends	3	3	11	11		(df=3)	
	d)None	16	16	27	27			

(NS-Non significant S - Significant) (P<0.05)

Table: 8 depicts that the Chi square values were calculated to find out the association between the levels of depression among senior citizens with their selected demographic variables. There was no significant association with demographic variables except for marital status (χ^2=7.041), current source of income (χ^2=7.8201) and reason for residing in the old age home (χ^2=6.415).

SECTION-I: FIND THE ASSOCIATION BETWEEN POST TEST SCORES OF LEVEL OF ANXIETY AMONG SENIOR CITIZENS WITH THEIR SELECTED DEMOGRAPHIC VARIABLES

Table:9 n=100

S. No	Demographic variables	No Anxiety(0-9)						Calculated value χ^2	Table value	Inference
		4-5		6-7		8-9				
		F	%	F	%	F	%			
1.	**Age in yrs**									
	a)60-63 years	3	3	4	4	-	-			
	b)64-67 years	2	2	7	7	4	4	7.526	12.59	**NS**
	c)68-71 years	7	7	24	24	6	6		(df=6)	
	d)72-75 years	6	6	23	23	14	14			
2.	**Sex**									
	a)Male	9	9	23	23	10	10	0.605	5.99	**NS**
	b)Female	9	9	35	35	14	14		(df=2)	
3.	**Religion**									
	a)Hindu	7	7	22	22	4	4			
	b)Muslim	-	-	-	-	-	-	3.816	5.99	**NS**
	c)Christian	11	11	36	36	20	20		(df=2)	
	d)Others	-	-	-	-	-	-			
4.	**Marital status**									
	a)Single	3	3	6	6	2	2			
	b)Married	3	3	11	11	8	8	2.966	9.49	**NS**
	c)Widow/ Widower	12	12	41	41	14	14		(df=4)	
	d)Divorce	-	-	-	-	-	-			

5.	**Educational status**									
	a)No formal education	5	5	15	15	8	8			
	b)Primary education	7	7	22	22	8	8			
	c)High school education	5	5	20	20	7	7	1.545	12.59 (df=6)	**NS**
	d)Higher secondary education	1	1	1	1	1	1			
	e)Graduate	-	-	-	-	-	-			
6.	**Duration of stay in old age home**									
	a)1-5 years	9	9	18	18	7	7			
	b)6-10years	6	6	28	28	8	8	5.943	12.59 (df=6)	**NS**
	c)11-15years	3	3	10	10	8	8			
	d)15years and above	-	-	2	2	1	1			
7.	**Number of children**									
	a)No children	9	9	20	20	4	4			
	b)One child	-	-	8	8	3	3			
	c)Two children	4	4	9	9	4	4	8.474	12.59 (df=6)	**NS**
	d)More than 2 children	5	5	21	21	13	13			
8.	**Reason for residing in the old age home**									
	a)No children	5	5	13	13	2	2			
	b)Neglect of family	9	9	37	37	14	14	7.681	9.49 (df=4)	**NS**
	c)Other problem	4	4	8	8	8	8			
9.	**Support system**									
	a)Family member	5	5	20	20	10	10			
	b)Neighbours	-	-	3	3	-	-	3.131	9.49 (df=4)	**NS**
	c)Friends	-	-	-	-	-	-			

	d)None	13	13	35	35	14	14			
10.	**Nature of admission to old age home**									
	a)Voluntarily	16	16	53	53	22	22			
	b)Forced by children	-	-	3	3	1	1	5.642	9.49 (df=4)	**NS**
	c)Others	2	2	2	2	1	1			
11.	**Previous occupation**									
	a)Coolie	11	11	37	37	15	15			
	b)Business	1	1	9	9	4	4			
	c)Government employee	-	-	4	4	-	-	13.723	15.51 (df=8)	**NS**
	d)Private employee	3	3	-	-	1	1			
	e)House wife	3	3	8	8	4	4			
12.	**Current source of income**									
	a)Pension	1	1	-	-	-	-			
	b)Children	1	1	7	7	8	8	11.871	12.59 (df=6)	**NS**
	c)Others	1	1	3	3	1	1			
	d)No	15	15	48	48	15	15			
13.	**Visit by family members**									
	a)Regularly	-	-	-	-	1	1			
	b)Occasionally	6	6	26	26	9	9	7.233	9.49 (df=4)	**NS**
	c)Never	12	12	32	32	14	14			
14.	**Hobbies**									
	a)Reading books and news paper	6	6	10	10	4	4			
	b)Watching TV	5	5	11	11	7	7	8.297	12.59 (df=6)	**NS**
	c)Chating with friends	1	1	7	7	6	6			

	d)None	6	6	30	30	7	7			

NS-Non significant (P<0.05)

Table: 8 depicts that the Chi square values were calculated to find out the association between the levels of anxiety among senior citizens with age, sex, religion, marital status, educational status, duration of stay in the old age home, number of children, reason for residing in old age home, supportive system, nature of admission to old age home, previous occupation, current source of income, visit by family members, and hobbies and these were no association between level of anxiety with their selected demographic variables.

SECTION-J: FIND THE ASSOCIATION BETWEEN POST TEST SCORES OF LEVEL OF WELL BEING AMONG SENIOR CITIZENS WITH THEIR SELECTED DEMOGRAPHIC VARIABLES

Table :10 n=100

S. No	Demographic variables	Positive well being		Mild distress		Moderate distress		Calculated value χ^2	Table value	Inference
		F	%	F	%	F	%			
1.	**Age in yrs**									
	a)60-63 years	1	1	6	6	-	-			
	b)64-67 years	4	4	9	9	-	-	4.794	12.59	**NS**
	c)68-71 years	14	14	23	23	-	-		(df=6)	
	d)72-75 years	11	11	30	30	2	2			
2.	**Sex**									
	a)Male	16	16	26	26	-	-	3.424	5.99	**NS**
	b)Female	14	14	42	42	2	2		(df=2)	
3.	**Religion**									
	a)Hindu	8	8	25	25	-	-			
	b)Muslim	-	-	-	-	-	-	1.963	5.99	**NS**
	c)Christian	22	22	43	43	2	2		(df=2)	
	d)Others	-	-	-	-	-	-			
4.	**Marital status**									
	a)Single	3	3	7	7	1	1			
	b)Married	9	9	13	13	-	-	4.825	9.49	**NS**
	c)Widow/ Widower	18	18	48	48	1	1		(df=4)	
	d)Divorce	-	-	-	-	-	-			

5.	**Educational status**									
	a)No formal education	11	11	16	16	1	1			
	b)Primary education	8	8	29	29	-	-			
	c)High school education	11	11	20	20	1	1	5.7845	12.59 (df=6)	**NS**
	d)Higher secondary education	-	-	3	3	-	-			
	e)Graduate	-	-	-	-	-	-			
6.	**Duration of stay in old age home**									
	a)1-5 years	12	12	21	21	1	1			
	b)6-10years	13	13	28	28	1	1	3.818	12.59 (df=6)	**NS**
	c)11-15years	4	4	17	17	-	-			
	d)15years and above	1	1	2	2	-	-			
7.	**Number of children**									
	a)No children	11	11	22	22	-	-			
	b)One child	4	4	7	7	-	-	4.809	12.59 (df=6)	**NS**
	c)Two children	3	3	14	14	-	-			
	d)More than 2 children	12	12	25	25	2	2			
8.	**Reason for residing in the old age home**									
	a)No children	5	5	15	15	-	-			
	b)Neglect of family	20	20	38	38	2	2	2.159	9.49 (df=4)	**NS**
	c)Other problem	5	5	15	15	-	-			
9.	**Support system**									
	a)Family member	7	7	26	26	2	2			
	b)Neighbours	1	1	2	2	-	-	5.825	9.49 (df=4)	**NS**
	c)Friends	-	-	-	-	-	-			

	d)None	22	22	40	40	-	-			
10.	**Nature of admission to old age home**									
	a)Voluntarily	25	25	64	64	2	2			
	b)Forced by children	2	2	2	2	-	-	3.261	9.49	**NS**
	c)Others	3	3	2	2	-	-		(df=4)	
11.	**Previous occupation**									
	a)Coolie									
	b)Business	18	18	45	45	-	-			
	c)Government	5	5	9	9	-	-			
	employee	3	3	1	1	-	-	17.448	15.51	**S**
	d)Private employee	-	-	4	4	-	-		(df=8)	
	e)House wife	4	4	9	9	2	2			
12.	**Current source of income**									
	a)Pension	-	-	-	-	1	1			
	b)Children	3	3	13	13	-	-	53.687	12.59	**S**
	c)Others	-	-	5	5	-	-		(df=6)	
	d)No	27	27	50	50	1	1			
13.	**Visit by family members**									
	a)Regularly	-	-	1	1	-	-			
	b)Occasionally	10	10	30	30	1	1	1.66	9.49	**NS**
	c)Never	20	20	37	37	1	1		(df=4)	
14.	**Hobbies**									
	a)Reading books	3	3	16	16	1	1			
	and news paper									
	b)Watching TV	8	8	15	15	-	-	5.461	12.59	**NS**
	c)Chating with	3	3	11	11	-	-		(df=6)	
	friends									

	d)None	16	16	26	26	1	1			

(NS-Non significant S- Significant) (P<0.05)

Table: 10 depicts that the Chi square values were calculated to find out the association between the levels of well being among senior citizens with their selected demographic variables. There was no significant association with demographic variables except for current source of income (χ^2=53.687) and previous occupation (χ^2=17.448).

CHAPTER – V

DISCUSSION

The discussion chapter deals with description of sample characteristics and objectives of the study. The aim of this present study was to assess the effectiveness of group physical activity on depression, anxiety and well being among senior citizens in The Little Sister of the poor home for the aged at Thindal. The findings were discussed as per the objectives of the study.

Description of demographic variables of senior citizens

Highest percentage 43(43%) of the senior citizens were in the age group of 72 -75 years.37 (37%) were belongs to the age group of 68-71 years. However, least percentage of senior citizens 13(13%)were in the age group of 64-67years and 60 - 63 years 7(7%) respectively. This findings are consistent with the study conducted by **Latiffah A L a , Nor Afiah Ma, Shashikala S (2005)** About 81% of respondents were in the age group of 60-69, 16.5% in the 70-79 years. This findings are consistent with the study conducted by Debi Chakrabarti, (**2009)** 60% of elderly were in age group of 60-70 years.

Regarding percentage distribution of senior citizens according to their sex showed that 58(58%) were females and 42(42%) of the senior citizens were males. This findings were consistent with the study conducted by **Latiffah A L a, Nor Afiah Ma, Shashikala S (2005)** where the respondents were aged 60 to 90 years comprised of 50.2% female and 49.8% male.

With regard to religion, Majority of 67(67%) senior citizens belonged to Christian and 33(33%) senior citizens belonged to Hindu.

Percentage distribution of senior citizens according to their marital status, Majority 67(67%) of senior citizens were widow/widower and 22(22%) were married. 11(11%) senior citizens were single. This findings are consistent with the study conducted by Debi Chakrabarti, (**2009)**, reported that majority of the elderly 60%of 60-70 years was married. This findings are consistent with the study conducted by **Latiffah A L a, Nor Afiah Ma, Shashikala S (2005)**

reported that most were married (73.5%); separated, widow/widower (25.1%); and single (1.4%).

Highest percentage, 37(37%) of the senior citizens had primary education, 32(32%) of the senior citizens had high education, however 28(28%) of senior citizens had no formal education, 3(3%) senior citizens had higher secondary education. This findings are supported with the study conducted by **Latiffah A L a , Nor Afiah Ma, Shashikala S (2005)**among the study participants 39.5% never attended school, 48.2 % had primary education, 9.3% had secondary education and 3.1% had tertiary education.

Percentage distribution of senior citizens according to their duration of stay in the old age home, majority 42(42%) of senior citizens were staying for 6-10 years, 34(34%) of them were staying for 1-5 years, 21(21%) of them were staying for 11-15years and least percentage of 3(3%) senior citizens were staying for 15years and above.

Percentage distribution of senior citizens according to number of children, majority 39(39%) of senior citizens were having two and above children, 33(33%) of senior citizens were having no children, 17(17%) of them were having two children and least percentage of 11(11%) of senior citizen were having one child. This findings are consistent with the study conducted by **Debi Chakrabarti (2009)**, reported that majority 60%of the elderly, with 2 or more children.

Percentage distribution of senior citizens according to reason for residing in the old age home, majority 60(60%) of senior citizens were residing due to neglect of family, 20(20%) of them were residing because of no children and 20(20%) of them due to other problems.

Highest percentage 62(62%) of senior citizens were not having any support system, 35(35%) of them were having some support system from their family members, 3(3%) of senior citizens were having support from neighbours. This findings are contradictory with the study conducted by **Debi**

Chakrabarti (2009), reported that majority of the elderly 60% of 60-70 years, elderly living with family support.

Percentage distribution of senior citizens according to nature of admission to old age home, majority 91(91%) were admitted by voluntarily, 4(4%) of them admitted due to force given by children and 5(5%) admitted by others.

Percentage distribution of senior citizens according to previous occupation ,majority 63(63%) of the senior citizens were coolie workers, 15 (15%) of them were house wives, 14(14%) of them were business, and least percentage of them 4(4%) were government employees and 4(4%) of them were private employees. This findings is consistent with the study conducted by **Latiffah A L a, Nor Afiah Ma, Shashikala S (2005)** 2.2% worked in the government sector, 4.0% in the private sector, 8.0% government pensioners, 4.6% retired from private sector and 2.2% worked on voluntary basis.

Percentage distribution of senior citizens according to current source of income, majority 78(78%) of the senior citizens were not having any income, 16(16%) of them were getting from their children, 5(5%) of them were getting from others and least percentage 1(1%) was getting by pension.

Percentage distribution of senior citizens according to visit by family members, majority 58(58%) of the senior citizens were not having anybody to meet, 41(41%) of them were met by family members occasionally and 1(1%) were met by family regularly.

Percentage distribution of senior citizens according to hobbies, majority 43(43%) of them were having no hobbies, 23(23%) of them were having the hobby of watching TV, 20(20%) of them were having the hobby of reading books and news paper and 14(14%) of them chat with their friends.

This chapter attempts to discuss the findings of the study as per the following objectives:

1. Assess the pre and post test level of depression among senior citizens.
2. Assess the pre and post test level of anxiety among senior citizens.

3. Assess the pre and post test level of well being among senior citizens.
4. Comparison between pre test and post test scores of level of depression among senior citizens.
5. Comparison between pre test and post test scores of level of anxiety among senior citizens.
6. Comparison between pre test and post test scores of level of well being among senior citizens.
7. Association between post test scores of level of depression among senior citizens with selected their demographic variables.
8. Association between post test scores of level of anxiety among senior citizens with their selected demographic variables.
9. Association between post test scores of level of well being among senior citizens with their selected demographic variables.

Objective: 1 Assess the pre and post test level of depression among senior citizens.

The study findings revealed that In pretest majority 60(60%) of senior citizens had severe depression, 40(40%) of senior citizens had mild level of depression and none of them had no depression. Where as in post test none of them had Severe depression, 66(66%) had moderate level of depression, and 34(34%) of them had no depression. It showed that most of them had severe depression in pretest and in post test it was reduced.

This findings are consistent with the study conducted by **Vishnu Gopal, Veena G, Sini Vijayan and Ram V Nambootiri,(2009)** among the 50 cases in old age homes, 4 of them were having mild depression, 28 were having moderate depression and 18 were having severe depression and **Usha, Lalitha and Padmavathi,(2009)** conducted study in that majority 73.4% of old age people were having severe depression.

Objective: 2 Assess the pre test and post test level of anxiety among senior citizens

The study findings revealed that majority 100(100%) of senior citizens had anxiety, where as none of them had anxiety in post test. It showed that most of them had anxiety in pretest and in post test most of them had no anxiety.

This findings are consistent with the study conducted by **Tomader Taha Abdel Rahman, (2005)** Egypt conducted a study on the prevalence of anxiety in the 168 elderly living at their own homes & 164 who are going to geriatric clubs regularly or living at geriatric homes and who reported that; 34.1% of people having anxiety. These findings are consistent with the study conducted by **Yalcin Kirmizioglu, Orhan Dogan, Nesim Kugu, Gamze Akyuz (2009)** conducted the study to determine current and lifetime prevalence of anxiety disorders amongst elderly people and reported the current prevalence for all types of anxiety disorder was found to be 17.1%.

Objective: 3 Assess the pre test and post test level of well being among senior citizens

The study findings showed majority 66(66%) of senior citizens had moderate distress, 32(32%) of senior citizens had mild distress and 2(2%) of senior citizens had severe distress and no one had positive well being In pretest. Where as In post test 30(30%) of them had positive well being, 68(68%) had mild distress, 2(2%) had moderate distress, and none of them had severe distress. It showed that most of them had distress in pretest and in post test it was reduced and they had positive well being.

These findings are consistent with the study conducted by **Liji Joseph & Leelamma K.E, (2009),** to compare the general well-being and death anxiety among institutionalized and non-institutionalized aged. The results indicate that Non-institutionalized aged reported better General Well-being compared to Institutionalized aged. This findings are consistent with the study conducted by **Vanitha Innocent Rani,(2009),** conducted a comparative study on the well being among elderly couples living in the joint family result showed that among elderly men(20%) had low level of well-being when

compared with the women(50%) had low level of well-being. In men(60%) had moderate level of well-being and in women(50%) of them had moderate level of well-being. Men(20%) of them had high level of well being and none of the women had high level of well being.

Objective: 4 Comparison between pre test and post test scores of level of depression among senior citizens.

The mean post test scores of level of depression 11.4 (SD±2.391) is lower than the mean pretest scores of level of depression 19.95 (SD±2.119). The paired `t` test showed that there was a significant difference between pre test and post test scores of level of depression among senior citizens t = 57(table value=1.984) at (P<0.05)level which indicates the effectiveness of group physical activity on depression among senior citizens.

This study findings are consistent with findings of **T.Rantanen and L.Timonen, et.al.,(2002)** conducted a study among 68 women with the mean age of 83 to determine the effects of a group exercise training program on mood. Experimental and control group was selected and experimental group received 10 week strength training intervention after the intervention, there was a significant improvement in mood in the intervention group compared to the home exercise control group: -3.1(SD 9.0) points vs +1.3 (SD 7.6) points (p=0.048) and the positive effect was still apparent three months after the intervention were ceased.

Hence the research hypothesis $\mathbf{H_1}$: The mean post test scores of level of depression is significantly lower than the mean pre test scores of level of depression among senior citizens was accepted.

Objective: 5 Comparison between pre test and post test scores of level of anxiety among senior citizens.

The mean post test scores of level of anxiety 6.6 (SD±1.154) is lower than the mean pretest scores of level of anxiety 12.22 (SD±1.15). The paired `t` test showed that there was a significant difference between pre test and post test scores of level of anxiety among senior citizens t = 44.009(table

value=1.984) at (P<0.05)level which indicates the effectiveness of group physical activity on anxiety among senior citizens.

This study findings are consistent with findings of **Roger T. Couture and Jochen Bocksnick, (2004)** examined the effects of brisk walk on somatic state anxiety with older physically fit women. 40 volunteers (age M=68, S=5.3) were randomly assigned in two groups. In total 40 volunteers(age range 60-78 years, M=68+5,3 years) participated in study. Twenty minutes after the walk, the experimental showed significant positive lasting effects on somatic anxiety.

Hence the research hypothesis $\mathbf{H_2}$: The mean post test scores of level of anxiety is significantly lower than the mean pre test scores of level of anxiety among senior citizens was accepted.

Objective: 6 Comparison between pre test and post test scores of level of well being among senior citizens.

The mean post test scores of level of well being 45.94 (SD±6.774) is higher than the mean pretest scores of level of well being 33.09 (SD±5.249). The paired `t` test showed that there was a significant difference between pre test and post test scores of level of well being among senior citizens t = 31.11 (table value=1.984) at (P<0.05)level which indicates the effectiveness of group physical activity on well being among senior citizens.

This study findings were consistent with findings of Debi Chakrabarti, (**2009)** Tripura conducted the study to assess the well-being of the Elderly Residing in Old Age Home Vs. those in Family Setting. The mean subjective well being score of elderly living in family setting was 88, median 82, and standard deviation 12.22. Mean subjective well being score of elderly living in old age homes was 81, median 80, and standard deviation 9.32.Mean difference of subjective well being of elderly living in family setting was significantly higher than elderly living in old age homes.

Hence the research hypothesis **H_3**: The mean post test scores of level of well being is significantly higher than the mean pre test scores of level of well being among senior citizens was accepted.

Objective: 7 Association between post test scores of level of depression among senior citizens with their demographic variables.

Chi square values were calculated to find out the association between the levels of depression among senior citizens with age, sex, religion, educational status, duration of stay in the old age home, number of children, supportive system, nature of admission to old age home, current source of income, visit by family members, and hobbies and is not associated with the post test level of depression. However, significant association was found between levels of depression in relation to marital status and reason for residing in the old age home($p<0.05$).

This study findings are consistent with findings of **Jain RK, et al., (2007)** reported that significant variables associated with depression were poor socio-economic status, marital status, non-working or dependency and illiteracy ($p < 0.05$). and therefore **H_4**: There is a significant association between the post test scores of level of depression among senior citizens with their selected demographic variables was rejected except for marital status (χ^2=7.041), previous occupation (χ^2=7.8201) and reason for residing in the old age home**(** χ^2=6.415).

Objective: 8 Association between post test scores of level of anxiety among senior citizens with their demographic variables.

Chi square values were calculated to find out the association between the levels of anxiety among senior citizens with age, sex, religion, marital status, educational status, duration of stay in the old age home, number of children, reason for residing in old age home, supportive system, nature of admission to old age home, previous occupation, current source of income, visit by family members, and hobbies and there was no association between the level of anxiety with their selected demographic variables.

H_5: There is a significant association between the post test scores of level of anxiety among senior citizens with their selected demographic variables was rejected.

Objective: 9 Association between post test level of well being among senior citizens with their demographic variables.

Chi square values were calculated to find out the association between the levels of well being among senior citizens with age, sex, religion, marital status, educational status, duration of stay in the old age home, number of children, reason for residing in old age home, supportive system, nature of admission to old age home, previous occupation, visit by family members, and hobbies. There was a significant association between current source of income, previous occupation and level of well being. It predicts that along with group physical activity a current source of income is helpful in improving the well being. Other variables were not associated with the level of well being.

This study findings are consistent with findings of **Debi Chakrabarti.,(2009)**, reported that there was a significant relationship between elderly residing in old age home with age, education, occupation, monthly income and number of children and therefore **H_6**: There is a significant association between the post test scores of level of well being among senior citizens with their selected demographic variables was rejected except for current source of income (χ^2=53.687) and previous occupation (χ^2=17.448).

CHAPTER – VI

SUMMARY, CONCLUSION, IMPLICATIONS, RECOMMENDATIONS AND LIMITATIONS

SUMMARY OF THE STUDY

The focus of the study was to assess the effectiveness of group physical activity on depression, anxiety and well being among senior citizens residing in The Little Sister of the poor home for the aged at Thindal, Erode. The design used for this study was pre experimental one group pre test and post test, the research approach selected for the study was evaluative approach. The conceptual frame work was based on modified wiedenbach's helping art of clinical nursing theory(1969).

The 100 samples were selected by purposive sampling technique and were assessed for level of depression, anxiety and well being before and after group physical activity which includes walking for 30 minutes, exercise for 20 minutes, art therapy for 30 minutes, and games for 45 minutes. Geriatric Depression Scale was used to measure the level of depression, Geriatric Anxiety Inventory was used to measure the level of anxiety and well being was measured by Modified well being scale.

The collected data were analyzed by using descriptive and inferential statistics.

The study findings revealed that the post test scores of level of depression was significantly lower than the pre test scores of level of depression, post test scores of level of anxiety was significantly lower than the pre test scores of level of anxiety and improved in well being after practicing group physical activity among senior citizens residing in selected old age home. The effectiveness of group physical activity was assessed by paired 't' test. Chi-square test was used to find out the significant association between depression, anxiety and well being among senior citizens with their selected demographic variables.

Major findings of the study

- Highest percentage (43%) of the senior citizens was in the age group of 72 -75 years.
- Most (58%) of the senior citizens were females.
- Almost (67%) of the senior citizens belonged to Christian.
- Highest percentage (67%) senior citizens were widow/ widower.
- Highest percentage (37%) of the senior citizens had primary education.
- Majority (42%) of senior citizens were staying for 6-10 years in old age home.
- Majority (39%) of the senior citizens were having more than 2 children.
- Majority (60%) of the senior citizens were residing in the old age home due to neglect of family
- Highest percentage (62%) was not having any support system.
- Most (91%) of the senior citizens were admitted in the old age home voluntarily.
- Majority (63%) of the senior citizens were coolie workers.
- Almost (78%) of the senior citizens were not having any source of income.
- Majority (58%) of the senior citizens were not visited by anybody.
- Highest (43%) of the senior citizens were not having any hobbies.
- During pre test majority (60%) of the senior citizens had severe depression, and (40%) senior citizens had mild depression. In post test none of them had severe depression, and (66%) of senior citizens had mild depression and (34%) of them had no depression after group physical activity.
- The mean post test scores of level of depression 11.4(SD±2.391) was lower than the mean pretest scores of level of depression 19.95(SD±2.119). The paired `t` test showed that there was a significant difference between pre test and post test scores of level of depression among senior citizens t = 57 (table value=1.984)at ($P<0.05$) level which

indicates the effectiveness of group physical activity on depression among senior citizens.

- During pre test majority (100%) of senior citizens had anxiety. In post test none of them had anxiety after practicing group physical activity.
- The mean post test scores of level of anxiety 6.6(SD±1.154) was lower than the mean pretest scores of level of anxiety 12.22(SD±1.15) The paired `t` test showed that there was a significant difference between pre test and post test scores of level of anxiety among senior citizens t = 44.009 (table value=1.984)at ($P<0.05$) level which indicates the effectiveness of group physical activity on anxiety among senior citizens.
- During pre test majority (66%) of senior citizens had moderate distress, (32%) of senior citizens had mild distress and (2%) of senior citizens had severe distress. In post test none of them had severe distress, (68%) of senior citizens had mild distress, (2%) of them had moderate distress and (30%) of senior citizens had positive well being after group physical activity.
- The mean post test scores of level of well being 45.94(SD±6.774) was higher than the mean pretest scores of level of well being 33.09(SD±5.249). The paired `t` test showed that there was a significant difference between pre test and post test scores of level of well being among senior citizens t = 31.11 (table value=1.984)at ($P<0.05$) level which indicates the effectiveness of group physical activity on well being among senior citizens.
- There was no significant association between the scores of level of depression among senior citizens with their selected demographic variables except for marital status (χ^2=7.041),previous occupation (χ^2=7.8201) and reason for residing in the old age home(χ^2=6.415) at ($p<0.05$) level.

- There was no significant association between the scores of level of anxiety among senior citizens with their selected demographic variables.
- There was no significant association between the scores of level of well being among senior citizens with their selected demographic variables except for current source of income (χ^2=53.687) and previous occupation (χ^2=17.448) at (p<0.05) level.

The study revealed that the post test scores of level of depression and anxiety were significantly reduced and improved well being after practicing group physical activity. Findings showed that practicing group physical activity such as walking, exercise, art therapy, games and listening to music, reduces the depression, anxiety and improves the well being of senior citizens residing in old age home.

CONCLUSION

The present study assessed the effectiveness of group physical activity in reducing the level of depression, anxiety and improving the level of well being. The mean post test scores of level of depression 11.4(SD±2.391) was lower than the mean pretest scores of level of depression 19.95(SD±2.119). There was a significant difference between pretest and post test scores of level of depression 't'value=57 at (p< 0.05) level among senior citizens. The mean post test scores of level of anxiety 6.6(SD±1.154) was lower than the mean pretest scores of level of anxiety 12.22(SD±1.15). There was a significant difference between pretest and post test scores of level of anxiety 't'value=44.009 at (p< 0.05) level among senior citizens. The mean post test scores of level of well being 45.94(SD±6.774) was higher than the mean pretest scores of level of well being 33.09(SD±5.249). There was a significant difference between pretest and post test scores of level of well being 't'value=31.11 at (p< 0.05) level among senior citizens. Therefore group physical activity was effective to reduce the depression, anxiety and to improve the well being among senior citizens residing in old age home.

IMPLICATIONS

The findings of the study have certain important implications for nursing service, education, administration and nursing research.

NURSING SERVICE

1. Nursing personnel is in the best position to provide group physical activity to senior citizens who are hospitalized.
2. Nurse as the change agent, can introduce the various other group physical activity to improve the health status of the senior citizens.

NURSING EDUCATION

1. Imparting the concepts of group physical activity among nursing students.
2. Nursing students can utilize the knowledge on group physical activity to give health education in the schools, hospitals, community and in old age homes.
3. The nurse educator can create awareness about the benefits of group physical activity by conducting workshop, conferences for the student nurses and they can also be encouraged to do mini project in these areas.

NURSING ADMINISTRATION

1. Nursing personnel can organize continuing nursing education program on group physical activity in all health sectors.

2. The Nurse administrator can arrange in-service education programmes for directing and motivating staff towards group physical activity.

3. The Nurse administrator should help to evaluate the senior citizens satisfaction periodically**.**

4. Nursing personnel can organize education program on group physical activity to the care givers of senior citizens by issue of booklets.

NURSING RESEARCH

1. The study finding can effectively be utilized by the emerging researchers.

2. This study may provide a foundation to conduct studies on larger and different populations to strongly prove the efficacy of group physical activity.

RECOMMENDATIONS

1. Comparative study can be done between the senior citizens residing in old age home and in joint family.

2. This similar study can be replicated on larger samples there by findings can be generalized to a large population.

LIMITATIONS

1. Investigator found that it was time consuming to conduct the interview schedule because of the difference in their level of understanding among senior citizens.

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