EFFECTIVENESS OF AROMATHERAPY IN REDUCTION OF DEPRESSION AMONG SENIOR CITIZENS RESIDING AT SELECTED OLD AGE HOMES IN MADURAI, TAMILNADU.

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

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ABSTRACT

Depression is a chronic, relapsing, recurrent disorder, and is known as the disease of the century. It is the fourth most important determinant of the global burden of disease. Depression has a poor recognition rate, but excellent treatability and excellent survival rate with adequate treatment. However much little attention has been given to depression among senior citizens and it is considered as an event in the aging process. Aromatherapy is a form of alternative medicine that uses oils obtained from plants, herbs, resins, either applied to the skin or baths for promoting health and wellbeing. In this study aromatherapy has been used to reduce the elderly depression.

STATEMENT OF THE PROBLEM

A study to assess the effectiveness of aromatherapy in reduction of depression among senior citizens residing at selected old age homes in Madurai, Tamil Nadu.

METHODOLOGY

Quantitative research approach was used in this study. The research design adopted for this study was experimental design. The study was conducted in Inba Illam old age home, Pasumalai and Mahatma old age home, Villapuram. Samples were selected by simple random sampling by lottery method. The sample size was 60 senior citizens with depression who fulfilled the inclusion criteria.

OBJECTIVES

1. To assess the pre test and post test level of depression among the senior citizens in control groupand experimental group residing at selected old age homes.
2. To compare the post test level of depression among the senior citizens in control group and experimental group residing at selected old age homes.
3. To compare the effectiveness of aromatherapy in terms of reduction in depression among the senior citizens in control group and experimental group residing at selected old age homes.
4. To find out the association between post test level of depression and selected demographic variables such as age, gender, religion, educational status, pre-retirement employment status, marital

status, source of income, family support, nature of admission to the old age home and period of stay among the senior citizens in control group and experimental group residing at selected old age homes.

HYPOTHESES

H_1: The mean post test depression score is significantly lesser than the mean pre test depression score of the elderly residing at selected old age homes.

H_2: There is a significant association between post test level of depression and selected demographic variablessuch as age, gender, religion, educational status, previous occupation, marital status, source of income, family support, nature of admission to the old age home and period of stay among the senior citizens residing at selected old age homes.

MAJOR FINDINGS OF THE STUDY

- Most of the samples, in control group 11 (36.7%) and in experimental group 13 (43.3%) were in the age group of 60- 69 yrs. Females outnumber males, in control group 19 (63.3%) and in experimental group 16 (53.3%). Most of the senior citizens were widow/ widower, 15 (50%) in control group and 20 (66.7%) in

experimental group. Family support was inadequate 24 (80%) in control group and 14 (46.7%) in experimental group. In control group 16 (53.3%) and 13 (43.3%) in experimental group were admitted to the old age homes by others (known persons). Pre-retirement employment status was unemployed / house wife, 10 (33.3%) in control group and 13 (43.3%) in experimental group. 12 (40%) in control group and 13 (43.3%) in experimental group completed primary education.

- The level of depression between the pre test and post test of control and experimental group were similar, with mild variation. Twentynine (96.7%) of the samples in pre test and 27 (90%) in the post test in the control group had mild depression; where as in the experimental group 27 (90%) in the pre test and 28 (93.3%) in the post test had mild depression. In the control group 1 (3.3%) had severe depression in the pre test and 2 (6.7%) in the post test: but in the experimental group only 3(10%) had severe depression in the pre test where as none had severe depression in the post test.
- The overall pre test mean score and post test mean score level of depression in control group is more or less same, the paired ‘t’ value was $t_{28} = 2.535$ and the table value was 2.756 which has shown that it was not significant at $p<0.01$ level

- The overall post test mean score level of depression was higher than the pre test mean score level of depression in experimental group, the paired 't' value was t_{28} = 11.65 and the table value was 2.756 which has shown that it was significant at $p<0.01$ level
- The effectiveness of aromatherapy has been experimental on both control group and experimental group. The post test level of depression at the experimental group (13.23) is lesser than the control group (15.87). The calculated value was 3.333 which were higher than the table value 2.663; which indicates that the level of depression has been reduced after the aromatherapy.
- There was a significant association between level of depression and their selected demographic variable- marital status in the control group.
- There was a significant association between level of depression and their selected demographic variables such as educational status, pre-retirement employment status and nature of admission to the old age home.

RECOMMENDATIONS FOR FUTURE RESEARCH

- A similar study can be replicated on a large scale with different demographic variables to generalize the findings.

- A similar study can be conducted for anxiety clients to reduce the level of anxiety.
- A comparative study can be conducted to determine the effectiveness of aromatherapy in reducing the level of depression between the male and female.
- A comparative study can be conducted for clients residing in psycho social rehabilitation centre and clients receiving treatment in hospital settings.
- A comparative study can be done to determine the effectiveness of aromatherapy massage and simple massage.
- A similar study can be conducted in reducing the level of depression with other therapy.

CONCLUSION

Mental health is a universal need that each individual has to acquire. Depression has been reported among all age groups and it is severe among the senior citizens.There is a need for identification of alternative modality of treatment to reduce the level of depression and also to enhance the coping skills of the senior citizens.

Aromatherapy is not new to India. It has been practiced for the past 6000 years. The products that we use on daily basis contain some form of essential oil. This is one of the reasons aromatherapy is so popular today.

It is easy to practice, readily available, and effective as a therapy. Also aromatherapy oil massage and bath has beneficial effect in reducing the depression among senior citizens. So, as a nurse we should participate increating awareness and also in providing aromatherapy to the needy people.

CHAPTER I

INTRODUCTION

"Depression is not sobbing and crying and giving vent,

It is plain and simple reduction of feeling…

People who keep stiff upper lips find that it's

Damn hard to smile"

-Judith Guest.

Depression is a chronic, recurrent disorder. Depression is the fourth leading cause of global burden and disability in the world. Depressive patients do not always seek treatment and if they do, they do not get effective treatment. So there is a little hope of reducing this burden **(G.Swaminth, 2008)**.

Depression is not taken seriously until patients attempt suicide. This can affect their quality of life and also affects their family members. According to World Health Organization (WHO), 3% of people in the world are living with depression at present. Also the report says that depression, Aids, and cancer are the three main diseases of the 21st century. **(Nur Syahid, 2004)**.

Depression has a poor recognition rate, but excellent treatability and excellent survival rate with adequate treatment. In addition cost per year of treating depression is very low as compared to the other illnesses. Early detection and productive follow-up could reduce the socio economic burden of depression and help rationalize healthcare rather than ration it **(G.Swaminth, 2008)**.

Ageing (British English) or **aging** (American English) is the accumulation of changes in a person over time. Ageing in humans refers to a multidimensional process of physical, psychological, and social change.

Depression in the elderly is a disabling illness which contributes to problems in activities of daily living and this makes them dependent on others and the health care system **(Oslin, et al 2000).**

Sometimes, people who have led a fairly independent life might be required to depend on others because of disabilities and coming to terms with these changes and challenges can be heart wrenching for the elderly. The various losses they experienced in life like death of spouse, death of friends, retirement and medical illness can put them at increased risk for depression. The number of older population is increasing and they need

closer examination and understanding of the illness **(Steffens D.C, et al, 2000)**.

Aromatherapy is an alternative medicine in which essential oils made from volatile plant materials are used for altering a person's mind, mood, cognitive function or health. In this therapy, the oils are obtained from plants, herbs and resins, either applied to the skin or baths for promoting health and wellbeing.

The concept of aromatherapy was first mooted by European scientists in 1907. In 1937, this word first appeared in a French book **Aromatherapie: Les Huiles Essentielles, Hormones vegetales** by **Rene-Maurice Gattefosse**, a chemist. In 1910, Gattefosse had a burnt injury while working in the laboratory. He developed gas gangrene, and he intentionally treated this with lavender oil successfully **(d'Angelo, 2002)**. A French surgeon, **Jean Valnet** pioneered the medicinal uses of essential oils, which he used as antiseptics in the treatment of wounded soldiers during World War II.

Essential oils are the fatty, aromatic elements of flowers, leaves and roots of many numbers of plants. The essential oils are used for therapeutic purposes for nearly 6,000 years. It is used in cosmetics, perfumes, and drugs by ancient Chinese, Indians, Egyptians, Greeks, and

Romans. It is also used for spiritual, therapeutic, hygienic and ritualistic purposes. **(Zen cart, 2012)**.

Through the olfactory sensation humans can distinguish, more than 10,000 diverse smells. Limbic system controls mood, memory, emotion and learning and also processes olfactory stimuli. The olfactory stimuli reaches the limbic system through the fine hair cilia of the nose **(Natural Health Newsletter, 2007)**.

The aromatherapy research findings on brain wave frequency revealed that inhaling the fragrance of lavender increases alpha waves that signify deep relaxation and inhaling jasmine fragrance stimulates beta waves indicating alertness **(Natural Health Newsletter, 2007)**.

Aromatherapy combined with massage therapy is an effective treatment for depression **(The university of Maryland medical Centre)**. The scents in essential oil communicate with the receptors in the nasal cavity, which in turn communicate to amygdala and hippocampus in the brain. This stimulates endorphins in the brain and raises the mood **(Kristie J. Jernigan, 2010)**.

The essential oils are made of different compounds which has complex actions. Our sense of smell is 10,000 times more sensitive than

sense of taste. Researchers proved that aromas activate hypothalamus gland, the pituitary gland and stimulates the limbic system in the brain.

Aromas of essential oils affect the nervous system and also reduce blood pressure **(Dr. Gary Schwartz)**. Accumulated tensions and anxieties are relieved by the calming and relaxing effects of the essential oils **(Internet health library, 2006)**.

The power of fragrance is utilized to make a soothing effect on one's mood. The aroma helps in balancing, stimulating, relaxing, invigorating and rejuvenating the body. These essential oils take out the negative elements from the body and instigate a new kind of vital energy into our body. There are several other benefits of aromatherapy remedies including wound healing, reducing inflammation, and acting as analgesics **(Patresia Adams, 2010)**.

NEED FOR THE STUDY

By 2020, depression will be the second largest illness next to heart disease **(World Health Organization)**. It is described as an epidemic of mental illness. Depression will be secondary to cancer in causing the disability and even death by 2020 **(Lyold I. Sederer, 2011)**.

Geriatric depression is a major problem affecting 8 to 20% of older people in the community and 37% in the health care facilities **(Centers for Disease Control)**. More often elderly adult faces significant life changes that predispose them to depression. Older adults with a personal or family history of depression, ill health, substance abuse, or inadequate social support are at higher risk of developing depression.

Too often, depression is judged as normal for old people or it is thought that antidepressants are not needed. This can leads to misery and to death from suicide or the physical illnesses.

The Indian family traditionally provides natural social security to the elderly. But nowadays the traditional role of the family is being shared by institutions such as old age homes. Many of the elderly parents are compelled to leave their children and stay in old age homes. The old age homes, which was a rarely present before are spreading widely across the country (**Pankaj 2008)**.

According to **Institute for Research and Rural Development (IRRD, 2011)** in India, many factors have contributed to the stay of elders in the old age homes:

- Migration of young people from the rural areas to cities for employment opportunities.

- Unwillingness of the elders to give up the responsibility to their children.
- Youngsters are reluctant to change according to the attitude of their parents.
- Migration of youngsters to foreign countries and away from their native homes.
- Elders are unable to take care of themselves.

In the changing society, India is slowly grasping the western culture where the parents limit their company with their children and even children will have full freedom to live according to their needs. Old age was never a problem in India. As life expectancy has increased to around 65 today, hundreds of old age homes have sprung up in India **(Sailaja, 2009)**.

According to the survey conducted by the **Madras Institute of ageing**, there were 659 old age homes in India in 2005(**Krishnan Nair, 2005**). **Help age India** has reported that there were 700 old age homes in 2007. During the next two decades, there would be a rapid expansion in the number of old age homes in the country.

Ageing is an important part of all human societies reflecting the biological changes that occur, but also reflecting cultural and societal

conventions. Roughly 100,000 people worldwide die each day of age-related causes. The effectiveness of aromatherapy remedies is yet to be scientifically proven, however there are some studies suggesting their therapeutic properties. The power of fragrance is utilized to make a soothing effect on one's mood.

From the above reports, it was understood that becoming elderly is inevitable, and there are various causes and risk factors contributing to elderly depression. Also pharmacotherapy is contraindicated in many cases. By looking at the causes, symptoms, medical treatment and other therapies, older people and their families can learn how to treat geriatric depression.

Now, there is a growing evidence that aromatherapy is effective in improving health and wellbeing and also promoting calm and soothing effect. Because of the tolerance effect developed to anti-depressants, there is a need to identify other methods to reduce depression. Moreover, research on aromatherapy and its effectiveness in reducing depression is very minimal in India. So, the investigator felt the need to conduct research on this topic.

STATEMENT OF THE PROBLEM

A study to assess the effectiveness of aromatherapy in reduction of depression among senior citizens residing at selected old age homes in Madurai, Tamil Nadu.

OBJECTIVES

1. To assess the pre test and post test level of depression among the senior citizens in control group and experimental group residing at selected old age homes.
2. To compare the post test level of depression among the senior citizens in control group and experimental group residing at selected old age homes.
3. To compare the effectiveness of aromatherapy in terms of reduction in depression among the senior citizens in control group and experimental group residing at selected old age homes.
4. To find out the association between post test level of depression and selected demographic variables such as age, gender, religion, educational status, pre-retirement employment status, marital status, source of income, family support, nature of admission to the old age home and period of stay among the senior citizens in control group and experimental group residing at selected old age homes.

HYPOTHESES

H_1: The mean post test depression score is significantly lesser than the mean pre test depression score of the elderly residing at selected old age homes.

H_2: There is a significant association between post test level of depression and selected demographic variables such as age, gender, religion, educational status, pre retirement employment status , marital status, source of income, family support, nature of admission to the old age home and period of stay among the senior citizens residing at selected old age homes.

OPERATIONAL DEFINITION

1. Effectiveness:

It refers to the decrease in the level of depression as a result of aromatherapy among senior citizens residing at selected old age homes as measured by Yesavage Geriatric Depression Scale.

2. Aromatherapy:

In this study, it refers to the mixing of five drops of lavender oil in 10 ml of gingelly oil for massaging from head to shoulder and addition of two drops of lavender oil in one bucket of warm water for bathing for healing and for promoting wellbeing. Massage is given for 20 minutes

with bare hands using techniques like stroking, combing, scratching, tapping, pulling, knuckling, applying pressure and one finer rotation. After an interval of one hour bath is given for 10 minutes. The therapy is given twice weekly for a period of four weeks.

3. Depression:

It refers to the state of sad mood in which the senior citizen feels of hopelessness, worthlessness, decreased interest, disinterest in relationship with others, which will be measured by Yesavage Geriatric Depression Scale.

4. Senior citizen:

It refers to the individual who are above 60 years of age living in selected old age homes.

ASSUMPTIONS

- Depression is a psychiatric illness that affects people of all ages and Sometimes needs to be treated with antidepressant drugs.
- Positive mood helps to control emotions and allows a person to maintain the ability to live life the way he/she wants.
- Growing old is an inevitable part of life and geriatric depression is a widespread problem. Yet depression is a difficult to

diagnose due to co morbid illnesses. Aromatherapy may be beneficial for senior citizens who are suffering from depression.

LIMITATIONS

- The study is limited to 60 samples.
- The study is limited to senior citizens who are above 60 years of age.
- It is limited to the period of 6 weeks.
- The study is limited to those who are residing at selected old age homes in Madurai.

PROJECTED OUTCOME

- The study will help to find out the prevalence of depression among senior citizens residing at selected old age homes in Madurai.
- The study will help to find out the effectiveness of aromatherapy in reducing depression among senior citizens residing at selected old age homes.
- This will help the psychiatric nurse to assess the level of depression and to manage it appropriately while working with the depressive clients.

CONCEPTUAL FRAMEWORK

Conceptual framework represents less formal attempt at organizing phenomenon than theories. Conceptual models can serve as springboards for generating research hypotheses.

The conceptual model represents conceptualizations of the nursing process and the nature of nurse-client relationships. The purpose of the conceptual framework is to provide a logical, coherent structure through which phenomena of concern can be understood and discussed.

A theoretical framework can be defined as set of concepts and assumptions that integrates them into meaningful configuration.

- Pawcett, 1994.

The present study aims at evaluating the effectiveness of aromatherapy in reducing depression among senior citizens residing at selected old age homes in Madurai. The conceptual framework of the present study is based on Imogene M. King's Theory of Goal Attainment. According to the theorist, decision making is a shared collaborative process in which senior citizens with depression and the Nurse shares information with each other, helps to identify goals related to selected aromatherapy and explore means and measures to attain the goal

regarding the selected therapy and finally moves forward for goal attainment.

King presents several assumptions that are basic to her conceptual framework. These include the assumptions that human beings are open systems in constant interaction with their environment, that nursing's focus is human beings interacting with their environment, and that nursing's goal is to help individuals and groups maintain health.

The major elements in the theory of goal attainment are seen in the interpersonal systems. Here two people who are strangers come together in a health care organization to help and be helped to maintain a state of health. The concepts of the theory are interaction, perception, communication, and transaction.

INTERACTION:

According to the theorist it is defined as a process of perception and communication between person and environment or between person and person represented by verbal and non-verbal behaviours that are goal directed. In the present study, it indicates the pre test. The researcher assess the demographic variables such as age, gender, religion, educational status, pre-retirement employment status, marital status,

source of income, family support, nature of admission to the old age home and period of stay.

PERCEPTION:

It is defined as each person's representation of reality. The elements of perception are importing energy from the environment and organizing it by information, transforming energy, processing information and exporting information in the form of overt behaviour. In this study, the researcher classifies the samples into three groups with normal, mild and severe depression after the pre test.

COMMUNICATION:

It is the process whereby information is transfered from one person to another either directly in face-to-face meeting or through written words. In this study, the researcher explains the subjects about aromatherapy.

TRANSACTION:

It is a process in which communication takes place between human beings and the environment to achieve goals. In this model, human are in constant interaction with their environment. In this study, the samples understand about the aromatherapy and gives consent to the therapy.

ACTION:

Each member makes judgement and thereby action follows to attain goal. The researcher provides aromatherapy to the samples to reduce the level of depression.

JUDGEMENT:

Each member of the dyad perceives the other and makes judgement for goal attainment. In this study, the researcher assesses the post test level of depression.

The goal is said to be achieved when there is reduction in the level of depression as a result of aromatherapy among elderly residing at selected old age homes.

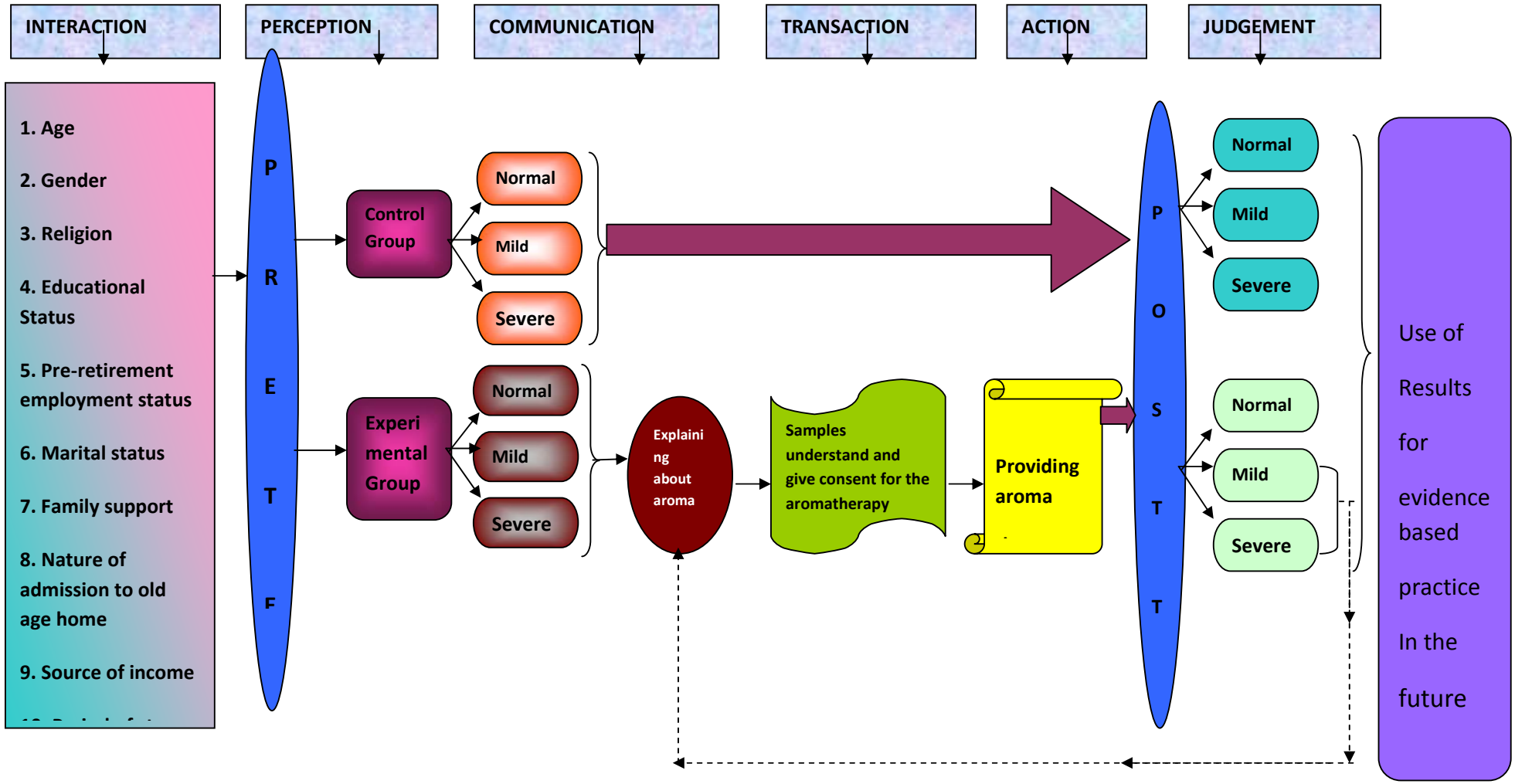


FIGURE 1: MODIFIED CONCEPTUAL FRAME WORK BASED ON KING'S GOAL ATTAINMENT THEORY (1986)

CHAPTER II

REVIEW OF LITERATURE

Review of literature is a written summary of the state of the art on a research problem. It helps the researchers to familiarize themselves with the knowledge base. It includes the activities involved in identifying and searching comprehensive picture of a state of knowledge on the topic.

- Polit (1995).

A literature review is a compilation of resources that provide the groundwork for further study. It is frequently found as a subsection of a published research study. Literature review refers to the activities involved in searching for information on a topic and developing a comprehensive picture of the state of the knowledge on the topic.

The researcher carried out an extension review of literature on the research topic in order to gain deeper insight into the problem and to collect maximum relevant information for building the foundations of the study.

In the present study the review of literature is organized under the following headings:

- Section-I: Review related to the magnitude of depression.

- Section-II: Review related to effectiveness of aromatherapy.
- Section-III: Review related to research on effectiveness of aromatherapy on depression.

SECTION I: REVIEW RELATED TO THE MAGNITUDE OF DEPRESSION

Bonanomi E, et al., (2009) conducted a study on quality of life, depression and cognitive functions. They identified that risk factors for depression are female sex, age above 70 yrs, previous hospitalizations and comorbidities.

An J Y, et al., (2008) conducted study to identify depressive symptoms and related risk factors in old and oldest –old elderly people with arthritis. Sample of 1084 elderly people with arthritis were selected. Results found that the prevalence of depressive symptom was greater for oldest- old people (66.7%) compared to old people (56%). These findings show that there are age differences in depression and related factors in elderly people with arthritis.

Routasalo P.E, et al., (2006) reported that the major problems of the elderly are emotional loneliness and social isolation. Feelings of loneliness were associated with expectations and satisfactions of contact with children ($p>0.05$). Living alone, depression, poor understanding and

unfulfilled expectations of contacts with friends are considered as the most powerful predictors of loneliness ($p<0.05$).

Ankur Barna, et al., (2005) assessed the distribution of depressive disorders in the elderly in the continents of Asia, Europe, Australia, North America, and South America. It was a community – based mental health survey. The findings revealed that the prevalence rate of elderly depression in the world is 10.3% and 21.9% among the elderly Indian population. It shows that geriatric depression was higher among the Indians than the rest of the world.

Ritchie. K., (2004) et al conducted a study to assess the prevalence of depression among the French elderly population. Samples of 1873 non-institutionalized persons aged 65 yrs and over were randomly recruited from the Montpellier district electoral roles. The mini International neuropsychiatry interview was used. Results indicated that 26.5% has major depression and 3.7% made a suicidal attempt.

Raj Kumar A.P, et al., (2000) identified the nature, prevalence and factors related to depression among the elderly in south Indian rural community in Vellore. The samples were over 65 years of age and the sample size was 1000. The tools used were 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. Major depression was significantly related with hunger, diabetes, transient ischemic attack, past head injury and more disability. They concluded that poverty and physical ill health are risk factors for depression and good social support was protective.

SECTION II: REVIEW RELATED TO EFFECTIVENESS OF AROMATHERAPY

A growing number of studies concluded that essential oils have anti-inflammatory, anti-bacterial and anti-fungal properties. **Soon Yi Seo, So Young Chang (2009)** conducted a study to examine the effects of aroma hand massage on sleep, depression and quality of life using a non-equivalent control group pre test- post test design among the institutionalized elderly women. The data was collected from June 23rd to August 10th of 2009.Fifty-six institutionalized elderly women were divided into two groups, 27 for the experimental group and 29 for the control group. The experimental group went through aroma hand massage with a mixture of lavender, Bergamot, Chamomile Roman oil in the ratio of 1:1:1. It was diluted with 20 ml of jojoba carrier oil. Massage was given on each hand for 5 minutes, three times a week during 2 weeks. Control group went non-treatment. Results indicated that aroma hand

massage showed more significant differences in the change of sleep score (t=3.83) and depression (t=-3.54). They concluded that aroma hand massage had a positive effect on sleep and depression in institutionalized elderly women.

Seo JY., (2009) examined the effects of aromatherapy on stress and stress responses in adolescents using a two-group cross-over design. Bergamot oil inhalation was given for the experimental group and the control group receives carrier oil inhalation using a necklace. The samples were 36 female high school students. They concluded that stress levels were significantly lower among the students who received the aroma treatment compared to those who received the placebo treatment.

Kyle (2006) conducted a study to compare the effectiveness of massage with 1% sandalwood oil with sweet almond oil alone or diffused sandal oil over a 4 week period in reducing anxiety in palliative care. The findings revealed that both the aromatherapy massage and diffusion of sandalwood oil showed steady and sustained declines in anxiety compared to the control massage.

Lee I.S and Lee G.J. (2006) studied the effects of lavender aromatherapy on insomnia and depression in women college students. The samples were 42 Women College students with insomnia. The

samples were studied during a 4 week protocol of varying concentrations of lavender fragrance. The results showed that higher concentration of lavender oil treatment decreases the length of time taken to fall asleep and severity of insomnia. It also increases the self-satisfaction with sleep.

In a report by the **Research Institute of Nursing Science (2006)** (Faculty of Nursing Seoul National University, Seoul, South Korea), aromatherapy massage was studied on elderly girls in Korea to work out its efficacy on anxiety and shallowness issues. Massage was administrated using aromatic essential oils, like chamomile, lavender, lemon and rosemary. Overall, the study lasted seven weeks in duration. Aromatherapy massage sessions were set three times per weeks, with every session being 20 minutes. After the initial 3-week period, a 1-week intermission ensued, and then continued the remaining 3 weeks. While blood pressure and pulse rate were not considerably affected, remarkable variations were clearly established in regard to anxiety and self-esteem.

Muzzarelli, Force, & Sebold, (2006) conducted a study among a convenience sample of 118 patients awaiting endoscopy in a same-day surgery center in the United States. They identified no significant difference in anxiety before and after lavender inhalation**.** In this acute care setting, mean anxiety scores were extremely high both before and

after the intervention, suggesting that aromatherapy may be better for moderate anxiety than for severe anxiety.

Lehrner, et al., (2005) conducted a study to assess the effectiveness of aromatherapy in controlling pain during dental procedures in Austria. Sample of 200 adults awaiting dental procedures were selected by convenience sampling method. The samples received diffuse ambient odors of orange or lavender while waiting and had significantly less anxiety and better mood than did those exposed to music.

Lewith (2005) found that the inhalation of diffused lavender oil is effective in enhancing the sleep quality. Randomized, single-blinded, crossover design was used for this study. Samples were less confident about the effectiveness of essential oils initially. The results showed that aromatherapy inhalation causes improvement in the quality of sleep and only one sample found the smell of lavender as unpleasant.

Goel, et al., (2005) conducted a study to assess the sleep quality in young, healthy individuals. The experimental group is presented with intermittent stimulus of lavender oil and distilled water for control group. Both polysomnographic and questionnaire data were collected. They identified that women had increased light sleep, decreased rapid-eye

movement sleep and decreased amount of time to awake after first falling asleep. The men experienced the opposite effects.

Kuritama, et al (2005) conducted a study to evaluate the differences between aromatherapy massage with lavender, cypress and sweet marjoram versus control massage of sweet almond oil every two weeks over a four month period. The findings revealed that both were effective in reducing anxiety and self ranked depression, but aromatherapy group showed significant increase in peripheral blood lymphocytes, cd8+ and cd16- lymphocytes.

Imura, M., et al.,(2005) assessed the effect of aroma massage among normal postpartum mothers. A quasi experimental between group design was used. Sample size was 40 first time normal post partum mothers with full term healthy infants. Twenty mothers received 30 minute aroma massage on the second post partum day. The tools used in the study were maternity blue scale, state trait anxiety inventory, profile of mood state and feeling toward baby scale. The study findings revealed that samples had significant reduction in maternity blues scale.

Imura, M., et al., (2004) assessed the preferences of postpartum mothers for sweet orange, lavender, and geranium and other postpartum factors. The samples were divided into three groups and given three

kinds of aroma in various orders. The tools used were Edinburgh Postnatal Depression Scale (EPDS) and questionnaires on maternity blues and how mothers feel about their babies. The subjects were asked to smell three kinds of aroma and explain their feelings. The results showed that 90% of the subjects felt that sweet orange was comfortable, and none answered that the aroma made them feel uncomfortable. The first preference was Sweet orange aroma (72%).

Baylak and Racine (2003) compared the individual properties of 32 essential oils and explained that essential oils had anti-inflammatory properties by inhibiting the enzymatic reactions in the epidermis and other tissues.

Smallwood, et al., (2001) did a randomized controlled trial among 21 dementia patients to identify the effectiveness of aromatherapy and massage, conversation and aromatherapy, or massage only for the reduction of excessive motor behaviour. The findings revealed that aromatherapy and massage greatly reduces excessive motor behaviour.

SECTION III: STUDIES RELATED TO RESEARCH ON AROMATHERAPY AND DEPRESSION

Aromatherapy bath is effective in treating depression when administered two or three times per week. Aromatherapy foot massage has calming and uplifting effect.

Yim V.W.C et al., (2009) did a Meta analysis on "Effects of Aromatherapy for Patients with Depressive Symptoms", using studies from five different databases (2000 to 2008). The tools used were Hospital Anxiety and Depression Scale (HADS), the Profile of Mood States (POMS) and the Maternity Blues Scale The sample size was 387. The aromatherapy massage with lavender oil, chamomile oil, a blend of sweet orange, geranium and basil oils, and another oil blend without specification was given for 30 minutes. The findings revealed that aromatherapy had improved the mood of depressive patients.

Kuriyama H, et al (2005) explained that massage therapy with essential oils help people with depression. The scents of aromatherapy stimulate positive emotions in the areas of brain which is responsible for memories and emotions. A person's belief also contributes to the enhancement of mood.

In fact, massage treatment alone has been shown to be an effective treatment to help patients with depression. In one study conducted at the **University of Miami**, 52 teenagers hospitalised for depression were split into two groups. For five days, the first group were each given a 30 minute massage and the second group watched television. The massage group felt less anxious, more co-operative, had lowered pulse rates and lower levels of cortisol (a chemical produced under stress) in their saliva.

CHAPTER III

RESEARCH METHODOLOGY

The methodology of research indicates the general pattern together empirical data for the problem under investigation. This chapter comprises the methodology for the study, the research approach, research design, population, sample size, setting, sampling technique, description of tool, validity and reliability of tool, pilot study, data collection procedure, protection of human rights, and plan for data analysis.

RESEARCH APPROACH

Quantitative research approach was adopted for this study.

RESEARCH DESIGN

Experimental design was adopted for this study.

SETTING OF THE STUDY

The study was conducted in selected old age homes in Madurai, 75 km away from Manamadurai. The study was conducted in two old age homes:

1. Inba illam, Pasumalai.
2. Mahatma old age home, Villapuram.

1. Inba illam, Pasumalai:

It is a non-profit, non-governmental, voluntary organization under the control of Tamil Nadu Theological Society (TTS). Total numbers of senior citizens were 60. Among them 33 samples who fulfilled the inclusion criteria were selected for this study.

2. Mahatma old age home, Villapuram:

It is also a non-governmental, voluntary organization. Total number of senior citizens residing in this institution was 35. Among them 27 samples who fulfilled the inclusion criteria were selected for the study.

POPULATION

The target population for the study is senior citizens residing at selected old age homes.

SAMPLE SIZE

The sample size was 60 (30in control group and 30 in experimental group).

SAMPLING TECHNIQUE

Samples were selected by simple random sampling by lottery method.

CRITERIA FOR SAMPLE SELECTION

Inclusion Criteria

- Both male and female
- Those who have depression score of more than or equal to 10
- Those who are willing to participate in the study.
- Age limit above 60 years of age.
- Those who are residing in two old age homes only.

Exclusion Criteria

- Persons who are not willing to participate.
- Persons who are physically ill.

DESCRIPTION OF THE TOOL:

The tool consists of two sections:

Section 1:- Demographic data sheet:

It includes such as age, gender, religion, educational status, pre-retirement employment status, marital status, source of income, family support, nature of admission to the old age home and period of stay among the senior citizens residing at selected old age homes.

Section 2:- Standardized scale:

J.A Yesavage Geriatric depression scale is used to assess the level of depression among elderly. The tool was initially created by Yesavage et al, has been tested and used extensively with the older population. The participants responded to the questionnaire (30 items) by answering ‘yes’ or ‘No’ type. Each item carries one mark and the maximum possible score is 30.

Scoring procedure:

All 30 items are scored one and zero according to the response given ‘yes’ or ‘No’. One point is given to every ‘yes’ responses for the first 20 items and one point is given to the every ‘no’ responses for the other 10 items. The maximum score is 30 and the lowest score is zero.

The level of depression is graded as follows:

CATEGORY	SCORE
Normal	0 - 9
Mild depression	10 - 19
Severe depression	20 - 30

Validity and reliability:

The validity and reliability of the tool have been supported through both clinical practice and research (r= 0.84, p<.001) (Sheikh and Yesavage, 1986).

PILOT STUDY

Pilot study was conducted at selected old age homes in Madurai with 6 samples that fulfill the inclusion criteria. It was carried out in the same way as the final study, in order to test the feasibility and practicability. Prior formal permission was obtained from the management. Pilot study was conducted by using Yesavage geriatric depression scale. The results were analyzed based on the scores obtained by the samples and observed by the investigator. The pilot study confirmed the feasibility. The samples included in the pilot study were not included in the main study.

PROCEDURE FOR DATA COLLECTION

Pre- Test (First week):

First formal permission was obtained from the Principal, HOD of Psychiatric Nursing Department and research committee members from the Matha College of Nursing to conduct this study. Prior to data collection, permission was obtained from the manager and director of old

age homes. The very first day the investigator met the senior citizens along with the manager of the old age home in order to obtain cooperation from the respondents. Before the interview, the purpose of the interview was explained to all senior citizens persons with self-introduction. A separate place was selected for the interview in the old age home and privacy was maintained and subjects were made comfortable and relaxed.

First four days, the investigator visited the Inba Illam old age home, Pasumalai in the morning 9 a.m. to 4 p.m. in order to assess the level of depression by using Geriatric Depression Scale (GDS). Every day 15samples were interviewed and it takes 15 minutes for each subject's interview.

For the next two days, the investigator had visited the Mahatma Old age home, Villapuram from 9 a.m. to 4 p.m. Every day 17-18 samples were interviewed and it takes 15 minutes for each subject's interview. So, the primary data was collected from 95 samples. Out of 95 samples, 80 had depression and among them 60 samples were selected for the study. The samples were allotted to experimental and control group by lottery method of simple random sampling technique. Totally 33 samples were selected from Inba Illam and 27 samples were selected from Mahatma old age home.

Aromatherapy (II Week to V Week-Four Weeks)

During these weeks from Monday to Saturday among experimental group, the samples were divided into three groups of 10 each. Daily the researcher visited the old age homes from 8 am to 4 pm. Each group received aromatherapy twice weekly. Prior to the therapy, the investigator selected a separate room for giving the therapy. Head to shoulder massage (five drops of lavender oil with 10 ml of gingelly oil) was given to each individual for 20 minutes. After one hour the samples were then given aromatherapy bath (two drops of lavender oil in one bucket of warm water) for 10 minutes. So the procedure took one and half an hour for each individual.

For male samples, the Researcher demonstrated the massage procedure initially. Then the samples did massage on each other as per the instruction given by the researcher under supervision. The researcher remained with the samples during the procedure.

CATEGORY	**DAYS OF THERAPY**	
I GROUP	Monday	Thursday
II GROUP	Tuesday	Friday
III GROUP	Wednesday	Saturday

Post- Test (One Week):

During the last week, post assessment of depression level was carried out among the senior citizens similar to the pre test. Post test was conducted in first three days in Inba Illam, and second three days in Mahatma old age home. Everyday 10 samples were covered.

During these six weeks period samples were very cooperative and the manager and warden of the old age homes were also helpful in this study. The investigator found satisfaction during data collection.

DATA ANALYSIS

The data were collected, tabulated and analyzed by using statistical methods based on the objectives. Descriptive and inferential statistics were used to analyze the data. The statistical analysis were arranged as follows:

- Frequency and percentage distribution were computed for describing the sample's demographic variables.
- Paired't' test was computed to compare the pre test and post test mean score level of social interaction of control group and environmental group sample.

- Independent‘t’ test was used to find out the efficacy of aromatherapy.
- Chi-square test was computed to describe the association between the samples and their demographic variables.

PROTECTION OF HUMAN RIGHTS:

- First, formal permission was obtained from the Principal, HOD of Psychiatric Nursing Department and research committee members from the Matha College of Nursing to conduct this study.
- Then permission was taken from the management and ethical committee of selected old age homes to conduct this study.
- Oral consent was obtained from the samples after explaining the importance of aromatherapy.
- No financial burden was given to the participants towards materials used during the intervention. All information were kept confidential and used only for the present study in order to maintain the anonymity of samples.

CHAPTER –IV

ANALYSIS AND INTERPRETATION OF DATA

Statistical procedure enables the researcher to organize, analyze, interpret, evaluate and communicate numerical information meaningfully. This chapter deals with descriptive and inferential analysis of the data collected from 60 senior citizens with depression at selected old age homes, Madurai.

INTERPRETATION OF DATA

The data collected through the tool were entered in master sheet for tabulation and statistical processing. The obtained data were analyzed, organized and presented under the following headings:

Section- I: Distribution of samples based on the selected demographic variables of control group and experimental group.

Section-II: Distribution of samples based on the level of depression in pre test and post test score of control group and experimental group.

Section-III: Comparison of samples in pre test and post test level of depression among control group and experimental group.

Section-IV: Effectiveness of aromatherapy- differences between post tests mean score level of depression among control group and experimental group samples.

Section-V: Association of samples between the post test level of depression and their selected demographic variables among control group and experimental group.

SECTION-I

This section deals with details of analysis about the frequency and percentage distribution of samples based on the selected demographic variables of control group and experimental group.

Table 1: Distribution of samples based on the selected demographic variables of control group and experimental group.

n=60

SL. NO	DEMOGRAPHIC VARIABLES	CONTROL GROUP		EXPERIMENTAL GROUP	
		Frequency	**Percentage**	**Frequency**	**percentage**
1.	**Age (in years)**				
	a. 60 – 69	11	36.7	13	43.3
	b. 70 – 79	13	43.3	10	33.3
	c. 80 and above	6	20.0	7	23.3
2.	**Gender**				
	a. Male	11	36.7	14	46.7
	b. Female	19	63.3	16	53.3
3.	**Religion**				
	a. Hindu	18	60	28	93.3
	b. Christian	12	40	2	6.7

SL. NO	DEMOGRAPHIC VARIABLES	CONTROL GROUP		EXPERIMENTAL GROUP	
		Frequency	Percentage	Frequency	percentage
4.	**Educational status**				
	a. Illiterate	11	36.7	9	30
	b. Primary education	12	40	13	43.3
	c. Secondary education	7	23.3	6	20
	d. Graduate	0	0	2	6.7
5.	**Pre-retirement employment status**				
	a. House wife/ unemployed	10	33.3	13	43.3
	b. Daily wages	12	40	9	30
	c. Private employee	7	23.3	7	23.3
	d. Government employee	1	3.3	1	3.3
6.	**Marital status**				
	a. Unmarried	4	13.3	4	13.3
	b. Married	10	33.3	5	16.7
	c. Widow/ widower	15	50	20	66.7
	d. Divorced/ separated	1	3.3	1	3.3

SL. NO	DEMOGRAPHIC VARIABLES	CONTROL GROUP		EXPERIMENTAL GROUP	
		Frequency	Percentage	Frequency	percentage
7.	**Family support**				
	a. Adequate	6	20	16	53.3
	b. Inadequate	24	80	14	46.7
8.	**Nature of admission to old age home**				
	a. Voluntary	10	33.3	6	20
	b. Forced by children	4	13.3	11	36.7
	c. Others	16	53.3	13	43.3
9.	**Source of income**				
	a. Pension	1	3.3	0	0
	b. Family members	2	6.7	17	56.7
	c. Others	11	36.7	4	13.3
	d. Nil	16	53.3	9	30
10.	**Period of stay**				
	a. 0 – 5 yrs	12	40	27	90
	b. 6 – 10 yrs	13	43.3	2	6.7
	c. 11 yrs and above.	5	16.7	1	3.3

Table 1 shows that out of 30 samples, majority of the samples were above 70 yrs of age. In control group, samples in 60-69yrs of age were 11(36.7%) and in experimental group 13(43.3%). The samples between 70-79 yrs of age in control group 13(43.3%) and in experimental group 10(33.3%). Samples above 80 yrs of age in control group were 6(20%) and in experimental group 7(23.3%). Regarding gender, majority of them are females 19(63.3%) in control group and 16(53.3%) in experimental group. Males constitute 11(36.7%) in control group and 14(46.7%) in experimental group.

While considering the religion, majority of the samples were Hindus 18(60%) in control group and 28(93.3%) in the experimental group. Regarding the educational status, 11(36.7%) were illiterate in control group and 9(30%) in experimental group. Only 2(6.7%) of experimental group clients were graduates.

The pre-retirement employment status shows that most of the people were unemployed 10(33.3%) in control group and 13(43.3%) in experimental group. While considering the marital status, 4(13.3%) were unmarried in both the groups; 10(33.3%) were married in control group and 5(16.7%) in experimental group. Widow/ Widower constitutes 15(50%) in control group and 20(66.7%) in experimental group. Only 1(3.3%) sample had divorced/ lives separated from the spouse in both the group.

Majority of the samples in the control group had inadequate family support 24(80%) and in experimental group 14(46.7%) received inadequate family support. Adequate family support was received only by 6(20%) samples in control group and 16(53.3%) in experimental group. Regarding the nature of admission to old age home majority of the samples were admitted by others (known persons) 16(53.3%) in control group and 13(43.3%) in experimental group; 10(33.3%) in control group and 6(20%) in experimental group were admitted voluntarily; 4(13.3%) in control group and 11(36.7%) were admitted forcefully by their children.

While considering the source of income, only 1(3.3%) receives pension in the control group. In control group 2(6.7%) and 17(56.7%) in experimental group receives financial benefits from the family members. Also 11(36.7%) in control group and 4(13.3%) in experimental group had other benefits like savings. About 16(53.3%) and 9(30%) had no source of income.

Majority of the samples 12(40%) in control group and 27(90%) in experimental group completed 0-5 years of stay in the old age home. In contrast only 13(43.3%) in control group and 2(6.7%) in experimental group completed 6-10 years of stay. Less number of samples 5(16.7%) in control group and 1(3.3%) in experimental group completed 11 years and above.

FIGURE – 2:- DISTRIBUTION OF SAMPLES ACCORDING TO AGE IN PERCENTAGE

n=60

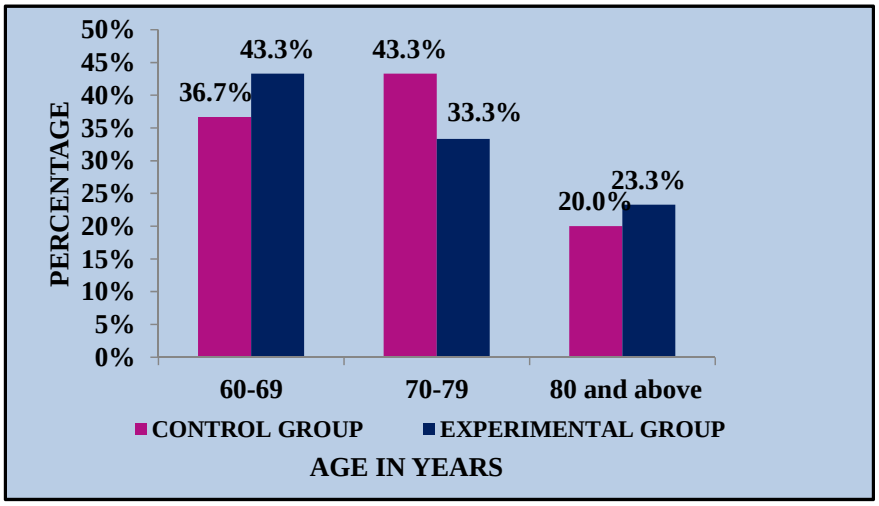


FIGURE -3:- DISTRIBUTION OF SAMPLES ACCORDING TO GENDER IN PERCENTAGE

n=60

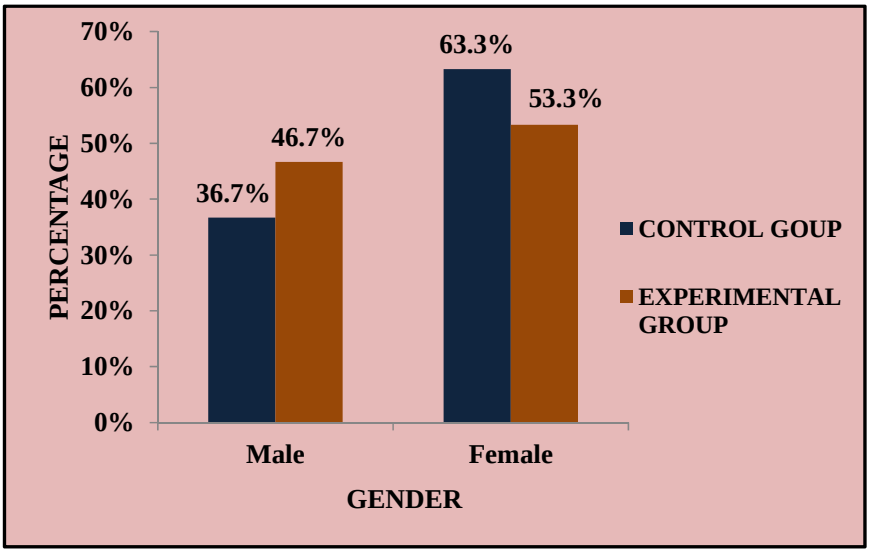


FIGURE -4:- DISTRIBUTION OF SAMPLES ACCORDING TO RELIGION IN PERCENTAGE

n=60

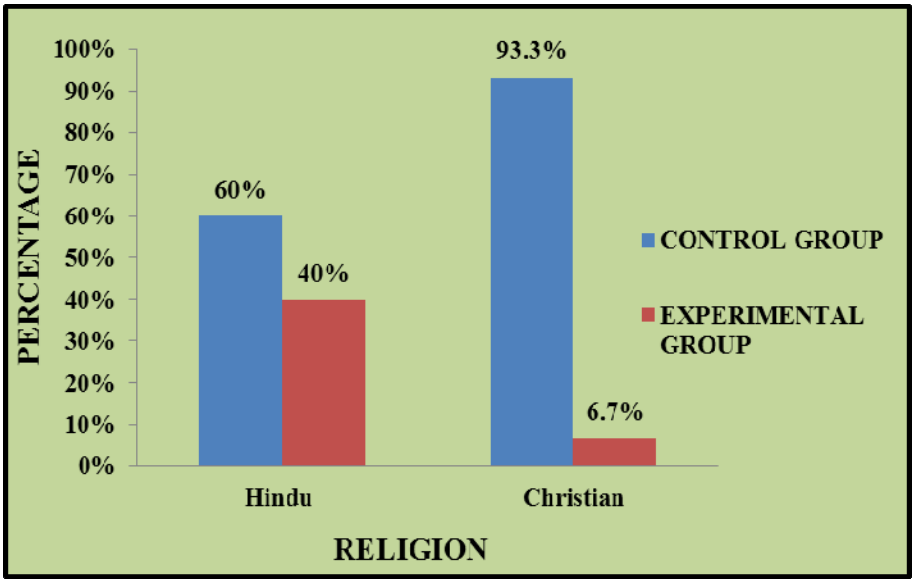


FIGURE -5:- DISTRIBUTION OF SAMPLES ACCORDING TO EDUCATIONAL STATUS IN PERCENTAGE

n=60

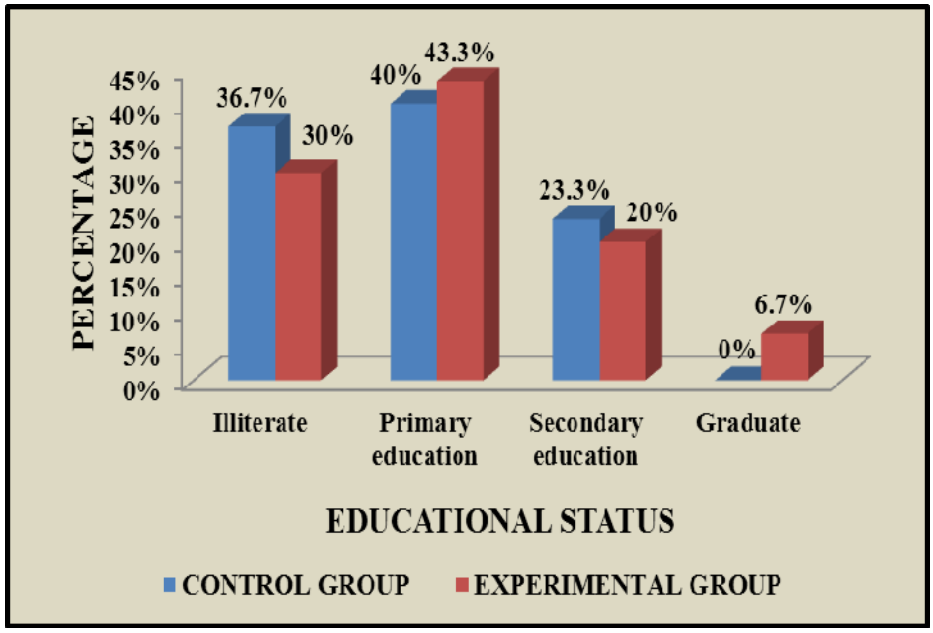


FIGURE -6:- DISTRIBUTION OF SAMPLES ACCORDING TO PRE-RETIREMENT EMPLOYMENT STATUS IN PERCENTAGE

n=60

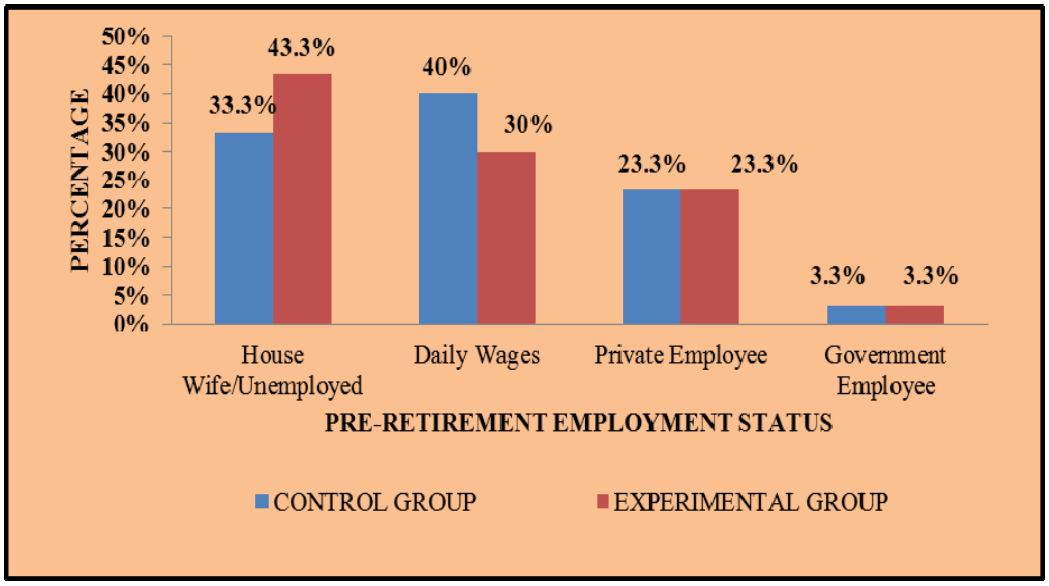


FIGURE -7:- DISTRIBUTION OF SAMPLES ACCORDING TO MARITAL STATUS IN PERCENTAGE

n=60

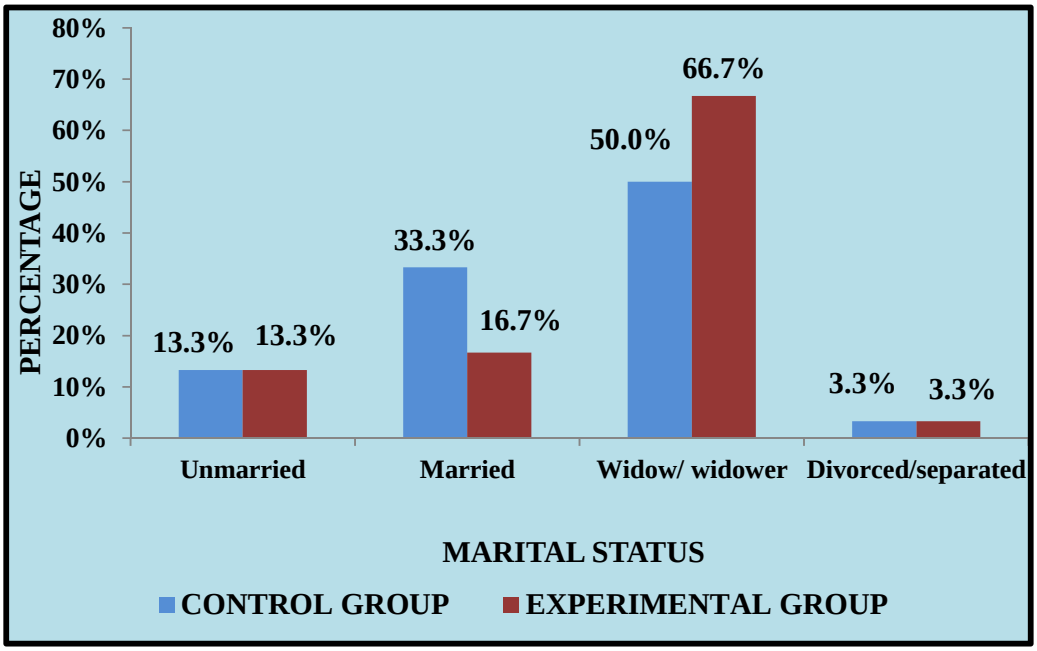


FIGURE -8:- DISTRIBUTION OF SAMPLES ACCORDING TO FAMILY SUPPORT IN PERCENTAGE

n=60

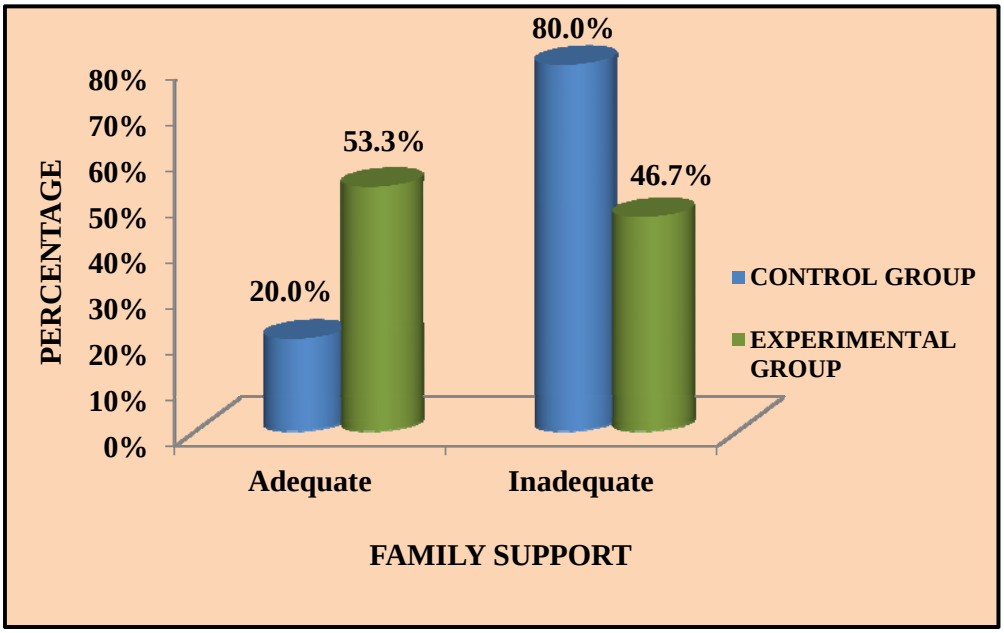


FIGURE -9:- DISTRIBUTION OF SAMPLES ACCORDING TO NATURE OF ADMISSION TO OLD AGE HOME IN PERCENTAGE

n=60

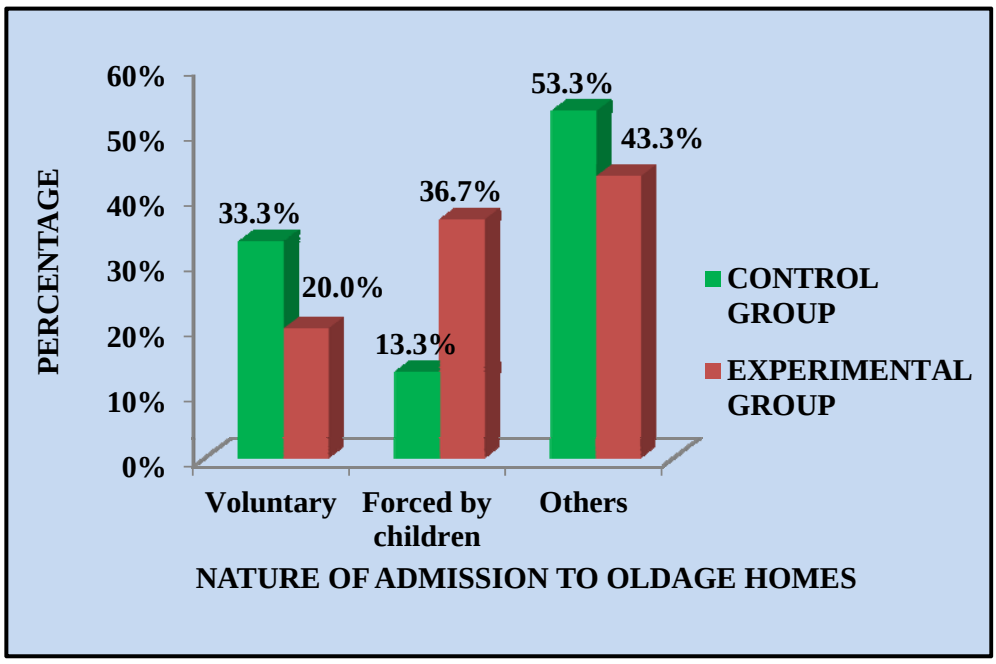


FIGURE -10:- DISTRIBUTION OF SAMPLES ACCORDING TO SOURCE OF INCOME IN PERCENTAGE

n=60

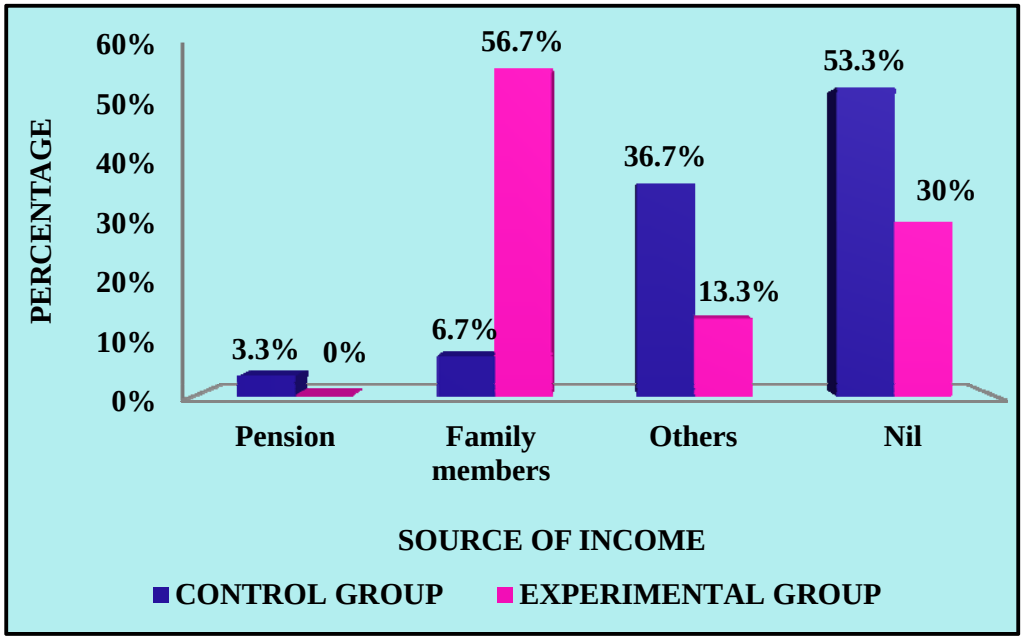
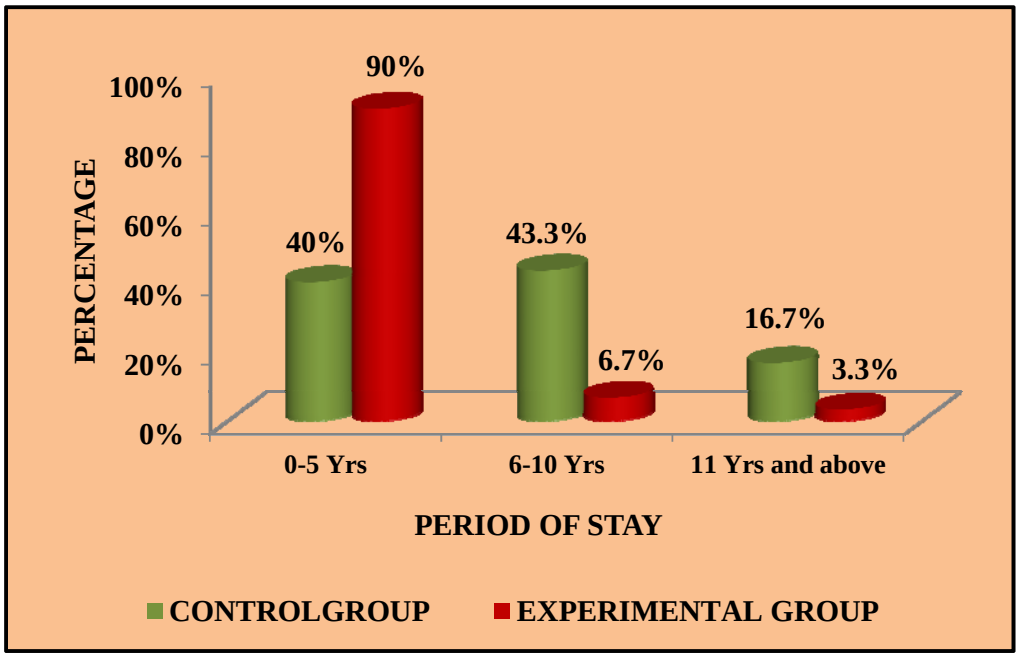


FIGURE -11:- DISTRIBUTION OF SAMPLES ACCORDING TO PERIOD OF STAY IN PERCENTAGE

n=60



SECTION II

This Section deals with the frequency and percentage distribution of samples based on the level of depression in pre test and post test score of control group and experimental group.

Table 2: Distribution of samples based on the level of depression in pre test and post test score of control group and experimental group.

n=60

S.NO	LEVEL OF DEPREESION	CONTROL GROUP		EXPERIMENTAL GROUP	
		Pre test frequency	Post test frequency	Pre test frequency	Post test frequency
1.	Normal	0 (0)	1 (3.3)	0 (0)	2 (6.7)
2.	Mild	29 (96.7)	27 (90)	27 (90)	28 (93.3)
3	Severe	1 (3.3)	2 (6.7)	3 (10)	0 (0)

Figures in the parenthesis indicate percentage to the total.

Table 2 shows that in control group and experimental group most of the samples had mild depression. In control group 29(96.7%) had mild depression in the pre test and 27(90%) in the post test. Whereas in the experimental group 27(90%) had mild depression in the pre test and 28(93.3%) in post test. In the control group 1(3.3%) had severe depression in the pre test and 2 (6.7%) in the post test. Whereas in the experimental group 3(10%) had severe depression in the pre test and none of the samples had severe depression in the post test. In both the groups none of the samples had normal level of depression in the pre test. But in the post test 1(3.3%) in the control group and 2(6.7%) in the experimental group had normal level of depression.

FIGURE -12:- DISTRIBUTION OF SAMPLES BASED ON THE LEVEL OF DEPRESSION IN PRE TEST AND POST TEST SCORE OF CONTROL GROUP IN PERCENTAGE

n=30

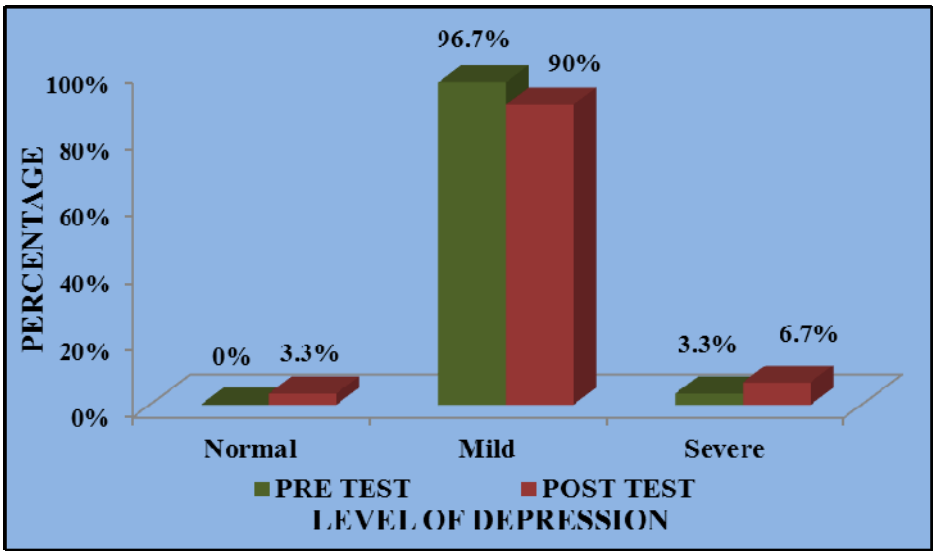
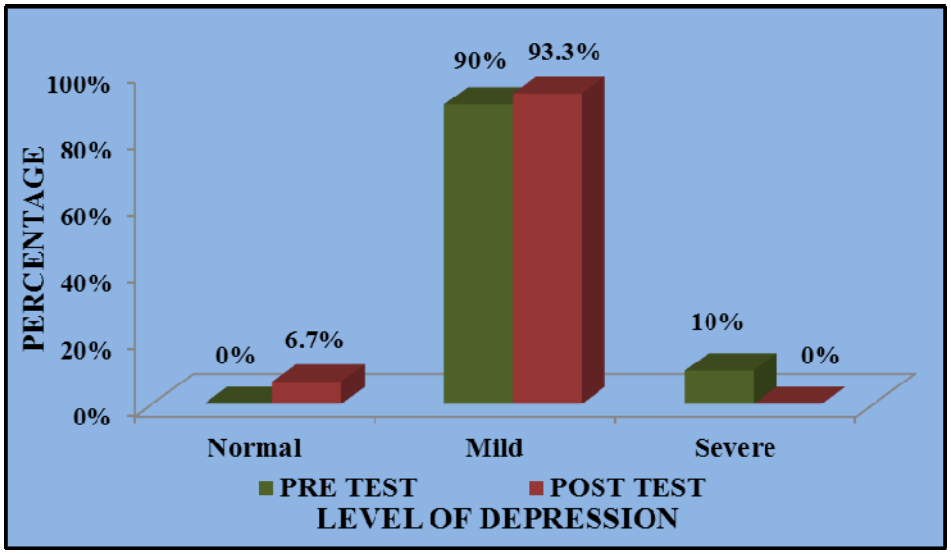


FIGURE -13:- DISTRIBUTION OF SAMPLES BASED ON THE LEVEL OF DEPRESSION IN PRE TEST AND POST TEST SCORE OF EXPERIMENTAL GROUP IN PERCENTAGE

n=30



SECTION III

This section deals with the analysis of samples in pre test mean score and post test mean score level of depression.

Table 3: Comparison of samples in between pre test and post test level of depression among control group.

CATEGORY	SAMPLE SIZE	MEAN SCORE	STANDARD DEVIATION	Paired 't' test	
				Calculated value at 1% df	Tabulated value at 1% df
PRE TEST	30	15.40	2.54	2.535^{NS} (0.008)	2.756
POST TEST	30	15.87	2.72		

Figures in the parenthesis indicate standard error of the estimate.

NS- Not significant at 1% level.

Table 3 represents that pre test and post test level of depression among control group samples. The calculated't' value at 1% level of significance is 2.535 which is less than the tabulated value (2.756). So, the researcher concludes that there was no significant difference between pre test and post test level of depression in control group.

Table 4: Comparison of samples in between pre test and post test level of depression among Experimental group.

CATEGORY	SAMPLE SIZE	MEAN SCORE	STANDARD DEVIATION	Paired 't' test	
				Calculated value at 1% df	Tabulated value at 1% df
PRE TEST	30	15.40	3.11	11.65[S] (1.05)	2.756
POST TEST	30	13.23	2.72		

Figures in the parenthesis indicate standard error of the estimate.

S- Significant at 1% level.

Table 4 represents the pre test and post test level of depression of experimental group samples. The observed't' value at 1% level of significance is 11.65, which is higher than the tabulated value 2.756. It indicates highly significant at $p<0.01$. So, the researcher accepted research hypothesis and concluded that there was a significant difference between the pre test and post test level of depression in experimental group.

SECTION IV

This section deals with the effectiveness of aromatherapy.

Table 5: Difference between post tests mean score level of depression among control and experimental group samples.

Category	Sample size	Mean score	Standard deviation	Independent 't' test	
				Calculated value at 1% df	Tabulated value at 1% df
Control group	30	15.87	2.72	3.333[S] (0.0002)	2.663
Experimental group	30	13.26	2.72		

The figure in the parenthesis indicates standard error of the estimate.

S- Significant at 1% level.

Table 5 shows the differences between post tests mean score level of depression among control and experimental group samples. The observed't' value is 3.333. This calculated value is greater than the tabulated't' value 2.663 at 1% level of significance which shows that this was highly significant. So, the researcher accepted the research hypothesis and concluded that there was a significant reduction in the level of depression of experimental group after aromatherapy.

SECTION V

This section deals with the association of samples between the post test level of depression of control group and experimental group and their selected demographic variables.

Table 6: Association of samples between the post test level of depression of control group and experimental group and their selected demographic variables

n=60

SL. NO	DEMOGRAPHIC VARIABLES	CONTROL GROUP					EXPERIMENTAL GROUP			
		Level of depression			Chi- square		Level of depression		Chi- square	
		Normal	Mild	Severe	Calculated value	Table value	Normal	Mild	Calculated value	Table value
1.	**Age (in years)**									
	a.60 – 69 yrs	0	10	1	1.951^{NS}	9.49	1	12	1.378^{NS}	5.99
	b.70 – 79 yrs	1	11	1			0	10		
	c.80 yrs and above	0	6	0			1	6		
2.	**Gender**									
	a. Male	0	10	1	0.731^{NS}	5.99	2	12	2.46^{NS}	3.84
	b. Female	1	17	1			0	16		

SL. NO	DEMOGRAPHIC VARIABLES	CONTROL GROUP					EXPERIMENTAL GROUP			
		Level of depression			Chi- square		Level of depression		Chi- square	
		Normal	Mild	Severe	Calculated value	Table value	Normal	Mild	Calculated value	Table value
3.	**Religion**									
	a. Hindu	0	16	2	2.835^{NS}	5.99	2	26	0.149^{NS}	3.84
	b. Christian	1	11	0			0	2		
4.	**Educational status**									
	a. Illiterate	0	11	0			0	9		
	b. Primary education	1	9	2			0	13		
	c. Secondary education	0	7	0	5.0^{NS}	9.49	0	6	**30.76^{S}**	7.82
	d. Graduate	0	0	0			2	0		
5.	**Pre-retirement employment status**									
	a. House wife/ unemployed	1	9	0			0	13		
	b. Daily wages	0	10	2	5.18^{NS}	12.59	0	9	**15.48^{S}**	7.82
	c. Private employee	0	7	0			1	6		
	d. Government employee	0	1	0			1	0		

SL. NO	DEMOGRAPHIC VARIABLES	CONTROL GROUP					EXPERIMENTAL GROUP			
		Level of depression			Chi- square		Level of depression		Chi- square	
		Normal	Mild	Severe	Calculated value	Table value	Normal	Mild	Calculated value	Table value
6.	**Marital status**									
	a. Unmarried	0	4	0			0	4		
	b. Married	0	10	0			1	4		
	c.Widow/ widower	1	13	1	**15.36^{S}**	12.59	1	19	1.91^{NS}	7.82
	d. Divorced/ separated	0	0	1			0	1		
7.	**Family support**									
	a. Adequate	0	6	0	0.84^{NS}	5.99	0	16	2.46^{NS}	3.84
	b. Inadequate	1	21	2			2	12		
8.	**Nature of admission to old age home**									
	a. Voluntary	0	9	1			2	4		
	b. Forced by children	0	3	1	4.207^{NS}	9.49	0	11	**8.57^{S}**	5.99
	c. Others	1	15	0			0	13		

SL. NO	DEMOGRAPHIC VARIABLES	CONTROL GROUP					EXPERIMENTAL GROUP			
		Level of depression			Chi- square		Level of depression		Chi- square	
		Normal	Mild	Severe	Calculated value	Table value	Normal	Mild	Calculated value	Table value
9.	**Source of income**									
	a. Pension	0	1	0			0	0		
	b. Family members	0	2	0	2.9^{NS}	12.59	0	17	2.669^{NS}	5.99
	c. Others	0	11	0			1	3		
	d. Nil	1	13	2			1	8		
10.	**Period of stay**									
	a. 0 – 5 yrs	0	10	2	4.437^{NS}	9.49	2	25	0.235^{NS}	5.99
	b. 6 – 10 yrs	1	12	0			0	2		
	c. 11 yrs and above.	0	5	0			0	1		

NS- Not significant at 0.05 level

S- Significant at 0.05 level

Table 6 shows the association between the post test level of depression and their selected demographic variables. The calculated chi-square value for marital status in control group was higher than the tabulated value at $p<0.05$ level of significance. Hence Researcher concluded that there was a significant association between the post test level of depression and their selected demographic variables that is marital status in control group.

The calculated chi-square value for educational status, pre-retirement employment status and the nature of admission to the old age home in experimental group was higher than the tabulated value at $p<0.05$ level of significance. Hence Researcher concluded that there was a significant association between the post test level of depression and their selected demographic variables such as educational status, pre retirement employment status and the nature of admission to the old age home

CHAPTER V

DISCUSSION

The aim of the study is to determine the effectiveness of aromatherapy in reduction of depression among the senior citizens residing at selected old age homes, Madurai. The sample size was 60.

The research design adopted for this study was experimental design. The setting of the study was Inba Illam, Pasumalai and Mahatma old age home, Villapuram. The study findings have been discussed with reference to the objectives, framework, and hypothesis of this study.

The objectives of the study were:

1. To assess the pre test and post test level of depression among the senior citizens in control group and experimental group residing at selected old age homes.
2. To compare the post test level of depression among the senior citizens in control group and experimental group residing at selected old age homes.
3. To compare the effectiveness of aromatherapy in terms of reduction in depression among the senior citizens in control group and experimental group residing at selected old age homes.

4. To find out the association between post test level of depression and selected demographic variables such as age, gender, religion, educational status, pre-retirement employment status, marital status, source of income, family support, nature of admission to the old age home and period of stay among the senior citizens in control group and experimental group residing at selected old age homes.

The first objective was to assess the pre test and post test level of depression among the senior citizens in control group and experimental group residing at selected old age homes.

Table 2 shows that none of the samples had normal level of depression in the pre test of the control group and experimental group. Whereas 1(3.3%) in the control group and 2(6.7%) in the experimental group showed normal level of depression in the post test. In the pre test, 29(96.7%) of the control group and in the post test 27(90%) had mild depression. But in the experimental group, 27 (90%) in the pre test and 28(93.3 %) in the post test had mild depression.

In the control group 1(3.3%) of the samples had severe depression in the pre test and it is increased to 2(6.7%) in the post test; whereas 3(10%) of the experimental group showed severe level of depression in

the pre test but in the post test none had severe level of depression. Hence the researcher concluded that in the experimental group there was a much reduction in the level of depression in the post test when comparing with the pre test than control group.

According to the researcher's point of view, aromatherapy is a newer and one of the natural therapies that has various benefits including reduction of depression. During the therapy process, initially some of the samples hadn't participated with interest but after seeing the other participants and also after experiencing the massage therapy for the first time; they had also participated eagerly. So Researcher felt that this might be the reason for such improvement in the experimental group.

The study was similar to that of **Beekman A T, et al., (2008).**They assessed the prevalence of late-life depression in the community. The findings revealed that major depression is rare among elderly (1.8%), and minor depression is more common (9.8%). Depression is highly prevalent among women and older people from underprivileged socio-economic status.

The second objective was to compare the post test level of depression among the senior citizens in control group and experimental group residing at selected old age homes.

Table 3 shows that in control group, the pre test mean score level of depression is 15.40and the post test mean score level of depression is 15.87 , which indicates more or less same with minimal variation. The calculated‘t’ value at 1% level of significance was 2.535 which was lesser than the table value 2.756. So Researcher concluded that there was no significant difference between pre test mean score and post test mean score level of depression in control group samples.

Table 4 shows that in experimental group, the pre test mean score level of depression is 15.40 and the post test mean score level of depression is 13.23. The observed paired‘t’ test value is 11.65. This calculated value was higher than the table value 2.756 at 1% level of significance. Hence the Researcher accepted the research hypothesis and concluded that there was a significant difference between pre test mean score and post test mean score level of depression in experimental group samples.

The study findings of this study were congruent with the study conducted by **Katie Lemon (2004).** He studied the effects of

aromatherapy in alleviating depression and anxiety. It was an evaluation of the aromatherapy service offered as part of the Surrey Oak lands NHS Trust's Day Hospital treatment plan. Montgomery- Asberg Depression Rating Scale (MADRS) or the Tyrer Brief Anxiety Scale (TBAS) and Hospital Depression Anxiety Scale (HADS) were used. Statistical analysis of the results indicated a significant difference between aromatherapy and control groups. The test group showed a marked improvement in the result of the three questionnaires.

The third objective is to compare the effectiveness of aromatherapy in terms of reduction in depression among the senior citizens in control group and experimental group residing at selected old age homes.

Table 5 shows that the post tests mean score level of depression of experimental group (13.23) is lower than the control group (15.87). Also the observed't' value is 3.333 which is higher than the tabulated't' value of 2.663. It indicates significant at $p<0.01$. Hence the investigator accepted the research hypothesis and concluded that there was a significant reduction in the level of depression of experimental group samples after giving aromatherapy.

This study results were similar to that of research conducted by **Yang Sen Biotechnology Institute (2009)**. They examined the therapeutic effects of aromatherapy in improving the mood of depressive old folks with aroma of Bel 'Air's Nepenthe essential oil four hours daily. The findings revealed that depression score was decreased and sympathetic activity have also declined. The parasympathetic activity (calmness) had greatly increased.

During the data collection procedure, the researcher herself was astonished by the positive feedback of the samples (like feeling calmness, relaxation and soothing effect after the massage) regarding the effectiveness of aromatherapy.

The fourth objective was to find out the association between post test level of depression and selected demographic variables such as age, gender, religion, educational status, pre retirement employment status, marital status, source of income, family support, nature of admission to the old age home and period of stay among the senior citizens in control group and experimental group residing at selected old age homes.

Table 6 shows that in control group there was a significant association between the level of depression and their selected

demographic variable that is marital status. In experimental group there was a significant association between the level of depression and their selected demographic variables such as educational status, pre-retirement employment status and nature of admission to the old age home.

The researcher's point of view is that there is an association between the educational status and the level of depression because when an individual is educated, he has the opportunity to communicate with others and also has wide experience in socializing with others. This will reduce the level of depression. Also, nature of admission to the old age homes also plays an essential role since it shows the rejection of the senior citizens by their children. This will weaken their level of coping and ends in depression.

This research finding is similar to that of **Wang J.K, et al., (2002)**. They assessed the sex differences in prevalence and risk indicators of geriatric depression among the Shi-Pai community among 3970 non-institutionalized residents aged above 65 yrs using geriatric depression scale – short term. The findings revealed that geriatric depression is more common in women (12.4%) than men(7.8%).

CHAPTER VI

SUMMARY, IMPLICATIONS, RECOMMENDATIONS AND CONCLUSION

SUMMARY

Depression is a major devastating, common mental health problems that affects all age group. It may cripple the entire and endanger the life of those individuals suffering with depression especially the senior citizens. As this was unnoticed and neglected in most circumstances, it results in behavioural modifications and sometimes in suicide. So, the depressive persons should be handled with at most care.

Aromatherapy, which is now used as a modern therapy is not new to India. Our ancestors have been practicing over the years but it doesn't reach lime light till twentieth century. There are various research evidences available about the effectiveness of aromatherapy. The aim of this study is to assess the effectiveness of aromatherapy in reduction of depression among senior citizens.

The conceptual framework adopted for this study is based on the modified Imogene M. King's Theory of Goal Attainment. Yesavage Geriatric Depression Scale (GDS) was used to find out the level of

depression. Random sampling method by lottery method was used for sample selection. Sixty Samples (control and experimental group) were taken for this study based on the inclusion criteria. Method of data collection includes an interview to find out the level of depression prior to therapy session; then experimental group underwent aromatherapy for 4 weeks. On the sixth week again the same GDS tool was administered to both control group and experimental group to assess the level of depression.

Based on the objectives and hypothesis the data were analyzed using descriptive and inferential statistical methods. Descriptive statistics was used for frequency and percentage, graphical representation such as bar and pie diagrams were made. Inferential statistics such as independent‘t’ test and paired‘t’ test and chi-square were computed to test the hypothesis. The level of significance for testing hypothesis was 0.05 and 0.01.

MAJOR FINDINGS OF THE STUDY

- Most of the samples, in control group 11 (36.7%) and in experimental group 13 (43.3%) were in the age group of 60- 69 yrs. Females outnumber males, in control group 19 (63.3%) and in experimental group 16 (53.3%). Most of the senior citizens were

widow/ widower, 15 (50%) in control group and 20 (66.7%) in experimental group. Family support was inadequate 24 (80%) in control group and 14 (46.7%) in experimental group. In control group 16 (53.3%) and 13 (43.3%) in experimental group were admitted to the old age homes by others (known persons). Pre-retirement employment status was unemployed / house wife, 10 (33.3%) in control group and 13 (43.3%) in experimental group. 12 (40%) in control group and 13 (43.3%) in experimental group completed primary education.

- The level of depression between the pre test and post test of control and experimental group were similar, with mild variation. Twentynine (96.7%) of the samples in pre test and 27 (90%) in the post test in the control group had mild depression; where as in the experimental group 27 (90%) in the pre test and 28 (93.3%) in the post test had mild depression. In the control group 1 (3.3%) had severe depression in the pre test and 2 (6.7%) in the post test: but in the experimental group only 3 (10%) had severe depression in the pre test where as none had severe depression in the post test.
- The overall pre test mean score and post test mean score level of depression in control group is more or less same, the paired ‘t’ value was $t_{28} = 2.535$ and the table value was 2.756 which has shown that it was not significant at $p<0.01$ level

- The overall post test mean score level of depression was higher than the pre test mean score level of depression in experimental group, the paired 't' value was t_{28} = 11.65 and the table value was 2.756 which has shown that it was significant at $p<0.01$ level
- The effectiveness of aromatherapy has been experimental on both control group and experimental group. The post test level of depression at the experimental group (13.23) is lesser than the control group (15.87). The calculated value was 3.333 which were higher than the table value 2.663; which indicates that the level of depression has been reduced after the aromatherapy.
- There was a significant association between level of depression and their selected demographic variable- marital status in the control group.
- There was a significant association between level of depression and their selected demographic variables such as educational status, pre-retirement employment status and nature of admission to the old age home.

NURSING IMPLICATIONS

1. Nursing Practice

- It is the responsibility of the psychiatric nurse to care the depressive clients in meeting their needs and to reduce their

depressive symptoms. So, the psychiatric nurse should identify the factors that increase the depressive features in a client and manipulate the factors through various non-pharmacological measures like aromatherapy, relaxation techniques, exercises and activity therapy.

- Psychiatric nurses should supervise and encourage the nursing students to give aromatherapy while caring for clients with depression.
- The nurse should integrate aromatherapy as an aspect of nursing intervention in both out patient and in patient settings when caring clients with depression using the nursing process approach.
- Psychiatric nurses can also utilize this aromatherapy in caring for other mentally ill clients since aromatherapy has wide range of benefits like improving the sleep, reducing pain, reducing anxiety and so on.
- Psychiatric nurses should also contribute to the evidence based psychiatric nursing research through the experience gained from the application of aromatherapy to the depressive clients.
- Aromatherapy can also be used as a therapy for medically and surgically ill patients suffering with problems like anxiety, pain, depression, stress and insomnia.

2. Nursing Education

- Education is the means through which the aims and habits of a group of people lives on from one generation to the next. This study results can be used as an informative illustrations for the nursing students who can effectively use the aromatherapy to reduce the level of depression among depressive clients.
- It is essential to incorporate the aromatherapy in psychiatric nursing curriculum, since it shows evidence in decreasing the level of depression among senior citizens.
- Nursing educators can encourage the nursing students to give education to depressive clients and their family members regarding aromatherapy and its effectiveness in reducing the level of depression.
- Nursing curriculum can motivate the nursing students that they should introduce the aromatherapy for reducing the level of depression among depressive clients. If so the clients can receive nursing care effectively.
- This study results can be used as an example by the nurse educator in the class rooms while giving instruction on care of depressive clients.

- Both the teachers and students can involve themselves in incorporating the aromatherapy while going for training to psychosocial rehabilitation centres.
- It is essential to add aromatherapy in complementary therapeutic modalities units of psychiatric nursing syllabus and should be added in the procedure book also.
- Nurse educators can arrange in service education programs for the nurses who are all working in the psychiatric hospitals and psychosocial rehabilitation centres to update their knowledge regarding aromatherapy; thereby they can effectively supervise the training nurses and nursing students while giving aromatherapy for psychiatric clients.

3. Nursing Administration

- Nurse administrators can create awareness among psychiatric nurses and enlighten their knowledge about the importance of aromatherapy and its application among depressive clients.
- Nurse administrators should organize in service education for psychiatric nurses regarding aromatherapy for reducing depression among senior citizens.
- Nurses are challenged to play an efficient role of an administrator as well as practitioner. To perform the role of an efficient

administrator, nurses also must have good knowledge in disseminating the research findings into practice; so that it will become beneficial to the psychiatric clients.

- Nurse administrator should arrange all the resources needed such as man, money, materials to implement this aromatherapy in psychosocial rehabilitation centres.
- Nurse administrator should create awareness for people through the mass media regarding importance of alternative modalities of therapies and essentials of aromatherapy in reducing the depression among senior citizens.

4. Nursing Research

- Nurses should take initiative to conduct more research on effects of aromatherapy and its benefits can be evaluated.
- Nurse researchers should identify the possible constraints / barriers in practicing aromatherapy and the ways to solve the problem by doing further research.
- The nurse researcher should publish her study result in the conferences, workshops or through other Medias. There by more studies can be conducted in this area in order to strengthen the role of nurse.

- Nurse researcher has to identify the effects of aromatherapy for other mental illness like affective disorders, anxiety disorders and organic disorders.
- Nurse researcher can conduct study regarding effectiveness of aromatherapy in reducing depression among various age groups.

RECOMMENDATIONS FOR FUTURE RESEARCH

- A similar study can be replicated on a large scale with different demographic variables.
- A similar study can be conducted for anxiety clients to reduce the level of anxiety.
- A comparative study can be conducted to determine the effectiveness of aromatherapy in reducing the level of depression between the male and female.
- A comparative study can be conducted for clients residing in psycho social rehabilitation centre and clients receiving treatment in hospital settings.
- A comparative study can be done to determine the effectiveness of aromatherapy massage and simple massage.
- A similar study can be conducted in reducing the level of depression with other therapy.

CONCLUSION

Mental health is a universal need that each individual has to acquire. Depression has been reported among all age groups and it is severe among the senior citizens. There is a need for identification of alternative modality of treatment to reduce the level of depression and also to enhance the coping skills of the senior citizens.

Aromatherapy is not new to India. It has been practiced for the past 6000 years. The products that we use on daily basis contain some form of essential oil. This is one of the reasons Aromatherapy is so popular today. It is easy to practice, readily available, and effective as a therapy. Also aromatherapy oil massage and bath has beneficial effect in reducing the depression among senior citizens. So, as a nurse we should participate in creating awareness and also in providing aromatherapy to the needy people.

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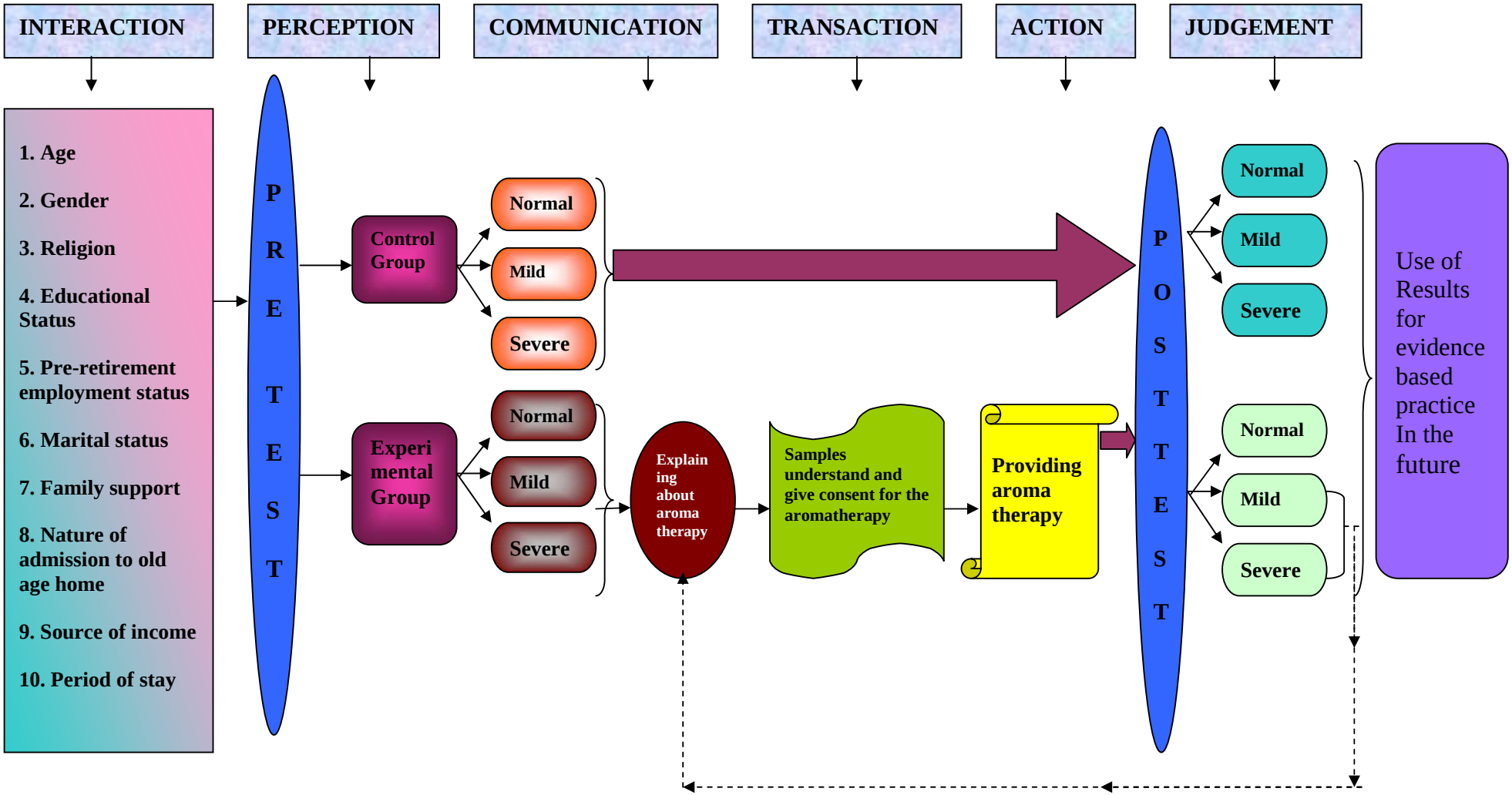

FIGURE 1: MODIFIED CONCEPTUAL FRAME WORK BASED ON KING'S GOAL ATTAINMENT THEORY (1986)

APPENDIX-I

LETTER SEEKING EXPERTS OPINION FOR CONTENT VALIDITY OF TOOL

From

Mrs. Suganthi.T,
M.Sc Nursing II year,
Matha College of Nursing,
Manamadurai.

To

Through proper channel.

Respected madam/sir,

Sub: Requesting opinion and suggestion of experts for Content validity.

I am a final year student of Master of Nursing in Matha College of Nursing, Manamadurai. In partial fulfillment of master degree in Nursing, I have selected the topic mentioned below for the research project to be submitted to Dr. M.G.R. Medical University, Chennai.

"A study to assess the effectiveness of aromatherapy in reduction of depression among senior citizens residing at selected old age homes, Madurai.

I request you to kindly validate the tool and give your expert opinion for necessary modification and also I would be very grateful if you could improve the problem statement and objectives.

Enclosures: a) statement of the problem
b) Objectives
c) Research hypothesis
d) Research methodology
e) Description of the tool
i. Part I : Demographic variables
ii. Part II : Geriatric Depression Scale

Thanking you with anticipation,

Date: Yours sincerely,

Place: (Mrs. Suganthi.T)

APPENDIX -II

LIST OF EXPERT OPINION FOR CONTENT VALIDITY

1. **Dr. Kanesan, M.D., D.P.M., D.N.B.,**

   Consultant Psychiatrist,
   Grace Kennet Foundation Hospital,
   Madurai.

2. **Mrs. V. JesindaVedanayagi, MSc., (N)**

   Associate Professor,
   HOD of Psychiatric Nursing Department
   Sacred Heart Nursing College
   Madurai.

3. **Mr. K.Vijayan , M.A., M.Phil**

   Assistant professor of Psychology cum Clinical psychologist
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4. **Ms. L.PramilaVasanthakumari M.A(SW) M.A.(Psy)**

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5. **Mrs.Jansi Rachael .M.Sc (N)**

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   Jones Puram,Madurai.

6. **Prof.Mrs.Shaberabanu,Msc,(N).,Ph.D**

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   MathaCollege of nursing,

   Manamadurai.

7. **Prof.Mrs.Kalaikuruselvi, Msc,(N).,**

   Vice Principal

   Mathacollege of nursing,

   Manamadurai.

8. **Prof. Mrs.HelanRajamanickam, M.Sc(N).,**

   HOD of Community Health Nursing

   Matha College of Nursing

   Vaanpuram, Manamadurai.

9. **Prof. Baby Rathinasabapathy, M. Sc (N),**

   Vice-Principal,

   Puducherry College of Nursing,

   Puducherry.

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APPENDIX –III

LETTER SEEKING PERMISSION TO CONDUCT STUDY IN SELECTED OLD AGE HOMES AT MADURAL.

To

Respected Sir/Madam

Sub: Requisition for giving permission to conduct the research in your esteemed organization.

I am to state that **Mrs.T.Suganthi**one of our final year M.Sc., Nursing student has to conduct a project , which is to be partial fulfillment of university requirement for the of Master degree in Nursing The topic of research is

““A study to assess the effectiveness of aromatherapy in reduction of depression among senior citizens residing at selected old age homes, Madurai.

Kindly permit her to do the research work in your Organization.

Thanking you,

Place: Yours faithfully

Date**Principal**

(Prof.Mrs.Shaberabanu,Msc,(N).,Ph.D)

APPENDIX-IV

SECTION-A-DEMOGRAPHIC DATA SHEET

1. Age (in years)

a) 60 – 69 [ ]

b) 70 – 79 [ ]

c) 80 and above [ ]

2. Gender

a) Male [ ]

b) Female [ ]

3. Religion

a) Hindu [ ]

b) Christian [ ]

4. Educational status

a) Illiterate [ ]

b) Primary education [ ]

c) Secondary education [ ]

d) Graduate [ ]

5. Pre-retirement employment status

a)House wife/ unemployed [ ]

b) Daily wages [ ]

c) Private employee [ ]

d) Government employee [ ]

6. Marital status

a)Unmarried [ ]

b) Married [ ]

c) Widow/widower [ ]

d) Divorced/ separated [ ]

7.Family support

a)Adequate [ ]

b)Inadequate [ ]

8. Nature of admission to old age home

a)Voluntary [ ]

b)Forced by children [ ]

c)Others [ ]

9. Source of income

a)Pension [ ]

b) Family members [ ]

c) Others [ ]

d) Nil [ ]

10. Period of stay

a)0 – 5 yrs [ ]

b) 6 – 10 yrs [ ]

c) 11 yrs and above [ ]

SECTION-B

GERIATRIC DEPRESSION SCALE (GDS)

kindly go through the following questions and put tick where appropriate.

S/NO	QUESTIONS	YES	NO
1.	Have you dropped many of your activities and interests?		
2.	Do you feel that your life is empty?		
3.	Do you often get bored?		
4.	Are you bothered by thoughts you can't get out of your head?		
5.	Are you afraid that something bad is going to happen to you?		
6.	Do you often feel helpless?		
7.	Do you often get restless and fidgety?		
8.	Do you prefer to stay at home, rather than going out and doing new things?		
9.	Do you frequently worry about the future?		
10.	Do you feel you have more problems with memory than most?		
11.	Do you often feel downhearted and blue?		
12.	Do you feel pretty worthless the way you are now?		
13.	Do you worry a lot about the past?		
14.	Is it hard for you to get started on new projects?		
15.	Do you feel that your situation is hopeless?		
16.	Do you think that most people are better off than you are?		

17.	Do you frequently get upset over little things?		
18.	Do you frequently feel like crying?		
19.	Do you have trouble concentrating?		
20.	Do you prefer to avoid social gatherings?		
21.	Are you basically satisfied with your life?		
22.	Are you hopeful about the future?		
23.	Are you in good spirits most of the time?		
24.	Do you feel happy most of the time?		
25.	Do you think it is wonderful to be alive now?		
26.	Do you find life very exciting?		
27.	Do you feel full of energy?		
28.	Do you enjoy getting up in the morning?		
29.	Is it easy for you to make decisions?		
30.	Is your mind as clear as it used to be?		
TOTAL SCORE :			

SCORING:

The items are scored in a ‘yes’ or ‘no’ format. One point is given to every ‘yes’ responses for the first 20 items and one point is given to the every ‘no’ responses for the next 10 items. The maximum score is 30 and the lowest score is zero. The score is interpreted as follows:

- 0 – 9 : Normal
- 10 – 19 : Mild depression
- 20 – 30 : Severe depression

gphpT –m

jdpegh; Gs;sptpguk;

தயவு செய்து கீழே கொடுக்கப்பட்டுள்ளவற்றில் உங்களுக்கு உரியதை குறிக்கவும்.

1. taJ.

    m. 60-69 [ ]

    M. 70-79 [ ]

    ,. 80 kw;Wk; mjw;FNky [ ];

2. ghypdk;

    m. Mz; [ ]

    M. ngz; [ ]

3. kjk;

    m. ,e;J [ ]

    M. fpwp];bad; [ ]

4. fy;tpepiy

    m. gbf;fhjth; [ ]

    M. Muk;gf;fy;tptiu [ ]

    ,. Nky;epiyf;fy;tptiu [ ]

    <. gl;lg;gbg;G [ ]

5. Ke;ijaNtiy

    m. ,y;yj;jurp/Ntiyaw;wth; [ ]

    M. jpdf;$yp [ ]

    ,. jdpahh; Ntiy [ ]

    <. muRNtiy [ ]

6. jpUkzepiy

m. jpUkzk; Mfhjhth; [ ]

M. jpUkzk; Mdth; [ ]

,. kidtpia ,oe;jth;/tpjit [ ]

<. kztpyf;Fngw;wth;/gphpe;Jtho;gth; [ ]

7. FLk;gj;jpdhpd; MjuT

m. NghJkhdJ [ ]

M. ,y;iy [ ]

8. KjpNahh; ,y;yj;jpy; Nrh;e;jtpjk;

m. RatpUg;gk; [ ]

M. gps;isfspd; tw;GWj;jy; [ ]

,. kw;wit [ ]

9. tUkhdj;jpw;fhd top

m. Xa;T+jpak; [ ]

M. FLk;gcWg;gpdh;fs; [ ]

,. kw;wit [ ]

<. ,y;iy [ ]

10. KjpNahh; ,y;yj;jpy; jq;fpapUf;Fk; fhyk;

m. 0 Kjy; 5tUlq;fs; [ ]

M. 6 Kjy; 10 tUlq;fs; [ ]

,. 11 tUlq;fs; kw;Wk; mjw;FNky; tUlq;fs; [ ]

பிரிவு—ஆ

முதியோர் மனச்சோர்வு –கேள்வித்தொகுப்பு

குறிப்பு:— தயவுசெய்து கேட்கப்பட்ட கேள்விகளுக்கான சரியான பதிலை 'ஆம்' அல்லது 'இல்லை' என்ற கட்டத்தினுள் ஏதாவது ஒன்றுக்கு மட்டும் குறியீடு செய்யவும்.

அனைத்து கேள்விகளுக்கும் பதில் அளிக்கவும்

வ.எண்	கேள்விகள்	ஆம்	இல்லை
1	நிறையசெயல்களையும் ஆர்வங்கைளையும் நீங்கள் கைவிட்டிருக்கிறீர்களா?		
2	உங்கள் வாழ்க்கையில் ஒன்றுமில்லை என்று உணர்கிறீர்களா ?		
3	நீங்கள் அடிக்கடி ஆர்வமின்றி இருக்கிறீர்களா?		
4	தாங்கள் சில சிந்தனைகளில் இருந்து மீள இயலவில்லையே என கவலைப்படுவதுண்டா?		
5	தாங்கள் உங்களுக்கு எதிர்காலத்தில் ஏதேனும் தீங்கு நிகழப்போகிறது என அஞ்சுவதுண்டா?		
6	தங்களுக்கு உதவ யாரும் இல்லையே என அடிக்கடி உணர்வதுண்டா?		
7	தாங்கள் அடிக்கடி அமையற்றும் உணர்ச்சிவசப்பட்டும் காணப்படுகிறீர்களா?		
8	வீட்டிற்கு வெளியே புதிய செயல்களில் ஈடுபடுவதை விட வீட்டிற்க்குள்ளேயே இருப்பதை தாங்கள் விரும்புகிறீர்களா?		
9	தங்கள் எதிர்காலம் பற்றி அடிக்கடி கவலைப்படுவதுண்டா?		
10	வேறு பிரச்சனைகளை விட நினைவாற்றலில் தான் அதிக பிரச்சனை இருக்கிறது என நினைப்பதுண்டா?		
11	நீங்கள் அடிக்கடி சோர்வுற்றும் நம்பிக்கை இழந்தும் சோகத்துடனும் காணப்படுகிறீர்களா?		
12	தற்போதைய வாழ்க்கை பயனற்றதாக உணர்கிறீகளா?		
13	கடந்த கால வாழ்க்கையைப் பற்றி தாங்கள் அதிகம் கவலை படுவதுண்டா?		

14	புதிய திட்ட முயற்சிகளில் ஈடுபடுவது தங்களுக்கு கடினமாக உள்ளதா?		
15	உங்களின் தற்போதைய சூழல் நம்பிக்கையற்றதாக உணர்கிறீர்களா?		
16	பெரும்பாலானோர் தங்களைவிட மேலானவர்கள என தாங்கள் நினைக்கிறீர்களா?		
17	சிறிய பிரச்சினைகளுக்கு கூட தாங்கள் அடிக்கடி கவலைப்படுவதுண்டா?		
18	தாங்கள் அடிக்கடி அழ வேண்டும் போல் இருப்பதாக உணர்கிறீர்களா?		
19	முனதை ஒரு நிலைப் படுத்துவதில் தங்களுக்கு சிரமம் இருக்கிறதா?		
20	சமூகத்தோடு ஒன்றியிருத்தலை தாங்கள் தவிர்க்க வேண்டும் என எண்ணுவதுண்டா?		
21	அடிப்படையாக நீங்கள் உங்களது வாழ்வில் திருப்தி அடைந்து இருக்கின்றீர்களா?		
22	எதிர்காலம் பற்றிய நம்பிக்கையோடு இருக்கின்றீகளா?		
23	எல்லா நேரங்களிலும் தாங்கள் நற்சிந்தனைகளுடன் இருக்கிறீர்களா?		
24	தாங்கள் எல்லா நேரங்களிலும் மகிழ்ச்சியோடு இருப்பதாக உணர்கிறீர்களா?		
25	தாங்கள் தற்போழுது உயிர்வாழ்வதே ஆச்சரியம் என நினைக்கிறீர்களா?		
26	வாழ்க்கை உணர்ச்சி வேகத்தை உண்டாக்குவதாக காணுகிறீர்களா?		
27	முழு உடல் வலுவோடு இருப்பதாக தாங்கள் உணர்கிறீர்களா?		
28	அதிகாலையில் எழும்போது சந்தோஷப்படுகின்றீர்களா?		
29	முடிவெடுத்தல் தங்களுக்கு இலகுவான காரியம்தானா?		
30	வழக்கம் போல் உங்கள் மனது தெளிவுடன் இருக்கின்றதா?		

APPENDIX-V

PROTOCOL FOR AROMATHERAPY MASSAGE

(HEAD TO SHOULDER MASSAGE)

- Provide privacy.
- Provide comfortable position (seated in a firm chair with low arms).
- Mix five drops of lavender oil in 10ml of gingelly oil in a cup.
- Stand quietly with your thumbs together and palms facing downward, flat on the top of the client; stand squarely behind the client.

HEAD SEQUENCE

STEP 1: With hands on either side of the client's head, hold the head lightly until your breathing synchronizes.

STEP 2: stroke lightly all over the client's hair with the palms of your hand. Then comb though the hair loosely with your fingers apart and relaxed, separating the hair but not touching the scalp. These soothing movements are used throughout the treatment to keep a smooth, flowing rhythm as you change from one technique to another.

STEP 3: Support the forehead with one hand, and use two fingers of the other hand to make rotations from the hairline back along the midline at one fingerwidth intervals. Work over the top of the head and down to the base of the skull. Here press upward with both fingers for a count of three. Return to the hairline and work a parallel line two fingerwidths from the first line. Finish by pressing upward at the base of the skull for a count of three. Continue until you have covered one side of the head. Stroke the hair for a few seconds, then change hands and repeat on the other side of the head.

STEP 4: Starting at the base of skull, stroke and comb up through the hair toward the hairline, working over the scalp in the opposite direction to the rotations in step three.

STEP 5: Hold your fingers with your nails in line ad lightly scratch all over the head, keeping your wrist loose. Stroke or comb through the hair for a few moments.

STEP 6: Support the head with one hand, and use one finger of the other hand to apply pressure for 3-5 seconds at one fingerwidth intervals along the midline. Start at the hairline and work back over the head to the nape of the neck, or work in the opposite direction if you prefer. Then work over one side of the head in the same way, in parallel lines two fingerwidths apart. Stroke the hair lightly and change hands to work on the other side of the head.

STEP 7: Using both hands at the same time and keeping to a regular rhythm, tap all over the head. Keep your wrists loose and bounce off the scalp. This can be done lightly or vigorously, as the client prefers. Comb your fingers gently through the hair to remove any knots.

STEP 8: Starting with your hands on either side of the neck, slide them up into the hair, fingers apart, and keeping close to the scalp. When you have gathered a handful of hair, close your fingers firmly and pull away from the head. Allow the hair to move through your fingers under tension, creating a strong, even

pull. Repeat all over the head, always pulling the hair at right angles away from the scalp. Stroke or comb through the hair, from the nape of the neck to the hairline.

STEP 9: Support the forehead with one hand. Make a fist with the other and knuckle up the neck and back of the head in a vertical line. Then work a parallel line, two fingerwidths from the first, over the side of the head. Stroke all over the hair, then change hands and repeat on the other side.

STEP 10: Support the forehead with one hand. With the heel of the other hand, knead with strong pressure up the back of the neck and head to the crown. Then start at the neck again, this time kneading up over the side of the head. Stroke the hair as you change hands and knead up the neck and over the other side of the head. Then knead the top, from crown to

forehead. Rub all over the head briskly, then gently comb or stroke the hair.

THROAT SEQUENCE

STEP 1: Rest your hands gently at the base of the throat for a moment or two. Now use your fingers to stroke up the throat and round under the ears, using alternate hands with brisk, light movements for above 30 seconds.

STEP 2: Working with both hands together, make two finger rotations gently up the throat, either side of the midline. Repeat on parallel lines two fingerwidths from the first. Then start under the chin and use four fingers to rotate firmly along the jawbone to the ears, moving two fingerwidths between rotations.

FACE SEQUENCE

STEP 1: With light, brisk finger movements, stroke up the sides of your clients face from the jaw to the temples. Now work across the forehead with four finger rotations. Start in the middle with your fingertips in a vertical line and work outward with both hands, moving two fingerwidths between positions and rotating for 3 – 5 seconds on each point.

STEP 2: Starting in the middle of the chin, work along the jawbone with one finger rotations, and one fingerwidth apart. Repeat in parallel lines at two fingerwidth intervals up over the cheeks, finishing on the cheekbones. Now return to the middle of the chin and use firm two finger pressure under the chin for 3 – 5 seconds. Repeat along the jawbone, moving two fingerwidths each time.

STEP 3: Use one or two fingers to knead along the lower gums, moving outward and back from the middle. Knead for 3 – 5 seconds in each position before moving two fingerwidths to the next. Then repeat along the upper gums. This technique stimulates blood flow to the gums and encourages healthy teeth.

STEP 4: Hook all four fingers gently under the cheekbones and hold this position for 3 – 5 seconds. Then do the same under the eyebrows.

STEP 5: Now apply firm pressure into the skull with all four fingers on the forehead, just above the eyebrows. These techniques help sinus conditions and can lift heavy headaches.

EAR SEQUENCE

STEP 1: Starting at the top of the ears where they meet the head, and pinching between index finger and thumb, rotate all around the outer edge. When you reach the lobes, pinch them firmly and pull them down toward the shoulders for 3 – 5 seconds.

STEP 2: Rub the ears briskly then cup your hands over them for 3 – 5 seconds. They will probably be quite hot and your client may hear a ringing or buzzing sound, which should fade after a few moments.

THE VALLIAMMAL INSTITUTION (TVI)

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✆ 98942 49630 email: ananthibetsy@rediffmail.com

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S Jeyapragasam

Prof. Dr. S. Jeyapragasam M.Sc.,M.A.,M.A.,Ph.D.,
Director
Rajarajan Institute of Science (RISE)

2/08/2011

Dr. B. Ananthi M.Sc.,M.A.,M.Phil.,Ph.D.,
Director & Secretary
The Valliammal Institution (TVI)