**ABSTRACT**

 **Back ground of the study**

Laughter is the best medicine. The benefits of laughter therapy extend beyond coping with stress to strengthening the immune system and improving your overall stress health. By doing every day, it soon becomes a natural and easy habit.Which generously rewards you for the little effort it involves,As a king maintains control over his kingdom.so can we maintain control over our own “kingdom” of vast territory of the mind. Humor and laughter therapy lighten the burden and help you connect with others.

 The prevalence of Elderly mental health problems among people over 65 is 15% in the general community. 25% is general practice patients and $>$30% in residential home. Aging is the universal process. It affects each human being in the world. Every human being passes through various stages in their life time birth, infancy, childhood, adolescence, adult and old age. This biological transition through different stages has cultural and human overtimes. Physical, Hormonal, Psychological and social factors play a major role to develop changes during old age. This study is to assess the effectiveness of laughter therapy on promotion of mental health among old age.

**Objectives of the study:**

The objectives of the study are:

 1. To assessthelevelofmentalhealthamong old agepeople

2. Toevaluatetheeffectivenessoflaughtertherapyonpromotionofmentalhealth among old age people

3. Tofindout theassociationbetween thepost-testlevelofmentalhealthwith theirselected demographic variables.

**Hypothesis**

 **H1**-Therewillbesignificantdifferencebetweenthepre-test andpost-testlevelofmentalhealthamongold agepeople.

 **H2-**There willbe asignificantassociation between thepost-testlevel of Mental Health with theirselecteddemographicvariables.

**Method**

The research approach adapted to this study is pre- experimental one group pre-test and post-test design. The setting is atSt.Joseph old age home ,Coimbatore.. The sample size was 50 old agepeople. The tool consists of section-A demographic proforma consisting of 13 items, section-B standardized General Healthquestionnaire consisting of 28 items. The content validity was established by subjecting the tool to experts in this field and the reliability of the tool was established by using split half technique and value was found to be 0.7. Thecollecteddatawereanalyzedbyusingbothinferentialanddescriptivestatistical methods. Paired‘t’ test was used to evaluate the effectiveness of laughter therapy.

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**Results**

 The pretest results show that out of 50 samples,26(52%) of the respondentsare havingmental health atsatisfactory level,24(48%) of them arehavingpoormentalhealthandnoneofthemcomesundergoodmentalhealth.Theposttestresultis 36(72%) of the respondents are having good mental health, 14(28%) of them arehaving mental health at satisfactory level and none of them comes under poor mentalhealth.

The overall pre intervention mean mental health score was 54.82 andpost intervention mean mental health score was 84.40.So the difference ofmental health level was observedby mean mental health score at 0.5 level. Sincethe post intervention mental health level was more than the pre intervention mentalhealth level,itwasinferredthatthelaughtertherapywaseffective.

The comparison of pre and post intervention mental health score of old age people revealed that t=24.2. Therefore the research hypotheses (H1) are accepted andnullhypothesesis rejected.

Theanalysisrevealedthattherewasasignificantassociation relationshipbetweenpostinterventionmentalhealthscoreof old age peoplewiththesocio-demographic variables such as religion andmarital status. The obtainedvalue wasless that the table value at0.05 levelof significance. So the research hypothesis (H2)isacceptedandthenullhypothesisis rejected.

**Interpretation and conclusion**

 It can be inferred that the Mental Health level of old age people were poor during the pre-test and was increased after the administration of Laughter therapy. It is found that the Mental Health Level score were considerably more in the post-test itself.

**Key words**

Effectiveness, Laughter therapy, Mental Health, Old age People.

**INTRODUCTION**

**“If taking vitamins doesn’t keep you healthy enough, try more laughter; the mostwastedofalldaysisthatonwhichonehasnotlaughed”**

# -Nicolas-SebastianChamfort

The term gerontology comes from the Greek words “gero” which means“old age” and “ology” means the study of, so the gerontology means study of oldage. Ageing is a life spanning process of growth and development from Birth todeath. Elderly is an integral part of the whole, bringing Fulfillment andself-actualization. The way that older adults adjust to the changes of ageing depends onthe individual. For some individuals adaptation and adjustment are relatively easy,whereasforotherindividualscopingwithageingchangesmayrequiretheassistanceoffamily,friendsandhealthcare.

A number of old age people are increasing in almost every country. In lastthree decades, the elderly population has grown twice as fast as the rest of thepopulation. In India 3.8% of the population comprise people above 65 years ofage. It is expected that by 2030 elderly population will form 21.8% of population.Normal ageing process eventually leads to noticeable changes in the body. Not allchanges are due to the normal aging process. ICMR (2000) reports that 31% of thechanges observed with advancing age, is due to disease and 34% normal agingvarietyofwaysbytheolderpeopleshowingthattheyareunhappyanddisappointed.Thestudyofhumorandlaughter,anditspsychologicalandphysiological effects on the human body is called “gerontology”. It is helpful todrop assumptions that ageing is stressful in itself or that elderly is difficult becauseoftheinevitabledeclineinhealthandvigor.

Mental disturbances are the most common experience by old age. It is apathologicalmooddisturbancescharacterizedbyfeeling,attitudesandbeliefsthe personhasaboutselfandhisenvironment,suchaspessimism,hopelessness,helplessness, self-esteem and a guilt feeling. In the recent times more and moreseniorcitizenshailingfromthemiddleclassbackgroundareseekingaccommodationintheelderlyhomes.InIndianumerouselderlyhomeshavesprungupacrossthelengthandbreadthofthecountry.

Laughter therapy is a type of exercise and laughter helps to reduce fourneuroendocrine hormones associated with stress response. The World LaughterDaywascreatedin1998byDr.MadanKataria,founderofthe worldwideLaughter therapy exercise. The first World laughter Day gathering took place inMumbai, India with 12,000 people joined together in a mega laugh session. Weneedtolaughmoreandseekstressreducinghumorinoureveryday lives.Laughter is the humangiftforcoping withstress.Laughterringing, laughterpealing,laughterroaring,laughterbubblingChucklingGigglingSnickeringSnorting. These are the sounds of soul saving laughter which springs from ouremotionalcoreandhelpsusfeelbetter.Intoday’sstressfulworld,weneedtolaughmuchmore.

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# NEEDFORTHESTUDY

# The world elderly population in the last 50 years from 1950 to 2000 hadincreased from 8 to 9.9 percent of total population. The geriatric population atpresent is 30.2 percent of total population. The proportion of elderly population isexpected to increase from 9.5 percent in 1955 to 14.5 percent in 2025. Of thesemore than fifty percent of them would be living in developing countries. It isestimatedthatbytheyear2020,700millionelderlywillbeindevelopingcountries, currently there would be around 671 million elderly in the world. It isalso projected that by 2020 the Japanese population will be the oldest in the worldwitha31%over60yearsofagefollowedbyItaly.

India is one of the South East Asian countries. In India by the year 2001there were around 76 million elderly people, who constituted 7.7% percent of thecountry’s population. Currently there are 9.8% elderly people in the country. It isexpected to increase further to 40% by 2025. In Karnataka out of population of 5.5croreeighteenpercentareelderlycitizen.

A study conducted on global estimation of the elderly population above theage of 65 years will increase to 72 by 2050. The geriatric population at present is30.2%ofthetotalpopulation.TheolderpersonsinAsiaarealsoexpectedtoincreaseinsizefromonemillionin2003in7millionin2050.

The population of people aged 60 years or above is likely to increase to18.4% of the total population. About 13.5% of newly admitted elderly home carepatientssufferedfromastress.About35.8%alifestresswasanimportantetiological factor for the most of the psychiatric disorders in elderly homes. Stressis the most frequently per cent in old age. Stress leads to depression in old age.About one in every 6 elderly suffers with late life depression. Among 34 millionelderly in United States, about 5 million endure persistent depressive symptomsandonemillionsuffermajordepression.

Laughter,thephysicalresponsetoperceivedhumorhasdemonstratedpositive effects on physical and psychological wellbeing. Humor can be used bynurses as an effective therapeutic when caring for older adult if appropriate sourceof humor are identified. Laughter releases catecholamine together with adrenalineand noradrenalin. This enhances blood flow, reduces inflammation and speeds thehealingprocessandheightenstheoverall levelofthebody.

 Laughter releases two neuro peptides viz, Endorphins and Encephalon’s.These are opioids which are body’s natural pain suppressing agents. The ability oflaughter to release muscle tension and to soothe sympathetic nervous system stressalsohelpstocontrol pain.Increasedcirculationalsohelpstominimizepain.

Aresearchstudywasconductedtolookintheimpactofanticipatinglaughteronthreemajorstresshormones.Highlevelsofstresshormonescanhavea detrimental impact on the income and cardio vascular system. All three stresshormones were reduced, when subjects anticipated seeing the funny video- andepinephrinedroppedby10percentages.

The investigator during the community and clinical experience found thatmany elderly people are suffering from illness. She also realized that there is animmense need of alleviation the stress of the elderly in order to maintain goodphysical and mental health. The investigator during her literature review foundthanlaughtertherapyprovidesgoodmassagetoallinternalorgans,reducesthe stress hormones level, increase the circulation and relaxes the muscles. Hence theinvestigator feltthat,itisnecessarytoassesstheeffectivenessof laughter toreducethelevelofillnessamongelderly.

 **Statement of the problem**

AstudytoassesstheeffectivenessofLaughterTherapyonPromotionofMentalHealthamongold age peopleresidingatselected oldage home,Coimbatore.

 **Objectives of the study:**

The objectives of the study are:

 1. To assessthelevelofmentalhealthamong old agepeople.

 2. Toevaluatetheeffectivenessoflaughtertherapyonpromotionofmentalhealth amongold agepeople.

 3. Tofindout theassociationbetween thepost-testlevelofmentalhealthwith theirselected demographic variables.

**Hypothesis**

 **H1**-Therewillbesignificantdifferencebetweenthepre-test andpost-testlevelofmentalhealthamongold agepeople.

 **H2-**There willbe asignificantassociation between thepost-testlevel of Mental Health with their selecteddemographicvariables.

# OperationalDefinition

**Effectiveness**

Itrefers tothe outcome of laughtertherapyinterms of promotionof mentalhealthamongold age people residingatold agehome.

# LaughterTherapy

It refers to the one of humor to promote overall health and wellness. It aimsto use the natural physiological process of laughter to help relieve physical oremotionalstressordiscomfort.Eg.Tealaughter,milkylaughterandwelcomelaughteretc.

Eg: - “Greeting Laughter” \_ Group of members can participate in welcomelaughter,Inthatanindividualwillshakeotherindividualshand andsimultaneouslysayHa,Ha,He,Herepeatingthesameforotherindividual.

# Promotion

Itreferstotheimprovementinthemindoftheold ageandhelpstostimulatethedevelopmentofmentalhealth.

# MentalHealth

Itreferstothepsychologicalstateofold agethatisfunctioningatanoptimumlevelofemotional andbehavioraladjustment

# Old age people

It referstothepersonstayinginold age homeabove60yearsofage.

**Old Age home**

Itreferstotheplacewheretheold agepeopleareshelteredforalong period.

 **REVIEW OF LITERATURE**

**“Thehumanracehasonereallyeffectiveweapon, andthatislaughter”**

# MarkTwain

**Reviewofliteraturewasorganizedasfollows**

**A.**StudiesRelatedtomentalhealthproblemsofold age people.

 **B.**StudiesRelatedtolaughtertherapy.

 **C**. Studiesrelatedtotheeffectivenessoflaughtertherapyonpromotionofmentalhealthamong old age people

# StudiesRelatedtoMentalHealthProblemsofoldAge

# Andreoletti,C., et.al., (2006) Many people in the developed countries are livingup to the age of 70years and above.

# Theagestructure of the population in thedeveloped countries has now evolved that the number of old people

# Continuouslyincrease. Indian population censes above the age of sixty years in 2001 was 7.7%of the population area. Emotional disorders result from maladjustment. The degree ofadaptation to the fact of aging is a crucial to a man’s happiness in the place of lifefailure to adapt can result in bitterness, inner withdrawal, stress, depression, wearinessoflifeandevensuicide.

Mellor,D.,et.al,.(2008) survey of elders in elderly homes in Pondicherry wasconducted to find out problem of the aged. The study findings reveal that a sizeablemajority of theagedsuffersfrom lossofmemory andnosleep.Psychologicallymaximumnumberofthe agedfeelsisolated,frustratedandstressed.

N.V. Muninarayanappa.,(2002) conducted on 196 persons above the age of 60years in Mumbai. A sample size sound that 49.5% of the study population was havingstress and among them 57.8% were females. The significant variables associated withstress were poor socio economic status, marital status, non-working or dependency andilliteracy.Stressedelderlywereinclinedtowardssubstanceabuse,58.13%haddisturbed sleeppatternsandmostlysufferedfromacuteorchronicillness.

Gupt.,et.al., (2007) conducted a randomized comparative study of yoga andrelaxation to reduce stress and anxiety was conducted. The aim of the study was tocompare yoga and relaxation as treatment modalities at 10 and 16 weeks from studybaseline to determine if either of modality reduce subject stress, anxiety, and bloodpressure and improve quality of life. The result of study was yoga appear to provide acomparableimprovementinstress, anxietyandhealthstatuscomparedtorelaxation.

Khasky,AD.,et.,al., (2009) conducted on stress, relaxation states, and creativityin Chicago. 114 participants in 4 groups practiced 25 minutes of progressive musclesrelaxation, yoga stretching, imaginary, or a control task. Before and after training,participantswereassessedbySmithR–stateinventorywhichmeasurestherelaxation related states disengagement, physical, relaxation, mental relaxation, strength andawareness,joy,loveandthankfulness,prayerfulness).Bothyogastretchingandimaginary trainees displayed higher scores on self – reported physical relaxation thanthe controls. Progressivemuscles relaxation trainees hadlower scores on somaticstressthancontrol.

Wittink,MN.,et.al.,(2009)wasconductedinAIIMSNewDelhi,intheyear2002 on life events and depression in elderly. The sample of 31 elderly subjectswas diagnosed as depression based on International Classification of Disease -10. Theresultsrevealedthatelderlydepressedpatientsexperiencedsignificantlyhighernumberofstressfullifeevents.

Streete,CC.,et.,(2006) done to assess yoga asana session increase brain GABAlevels.TheaimofstudywastocomparechangesinbrainGABAlevels.Associatedwith an acuteyoga session Verusreading session. It was hypothesized thatanindividual yoga session would be associated with an increase in brain GABA level.Intervention look place at medical school affiliated centers. The sample comprised 8yoga practitioners and 11 comparison subject. The result shows that there was a 27%increase in GABA levels in the yoga practitioner group after the yoga session.(0.20 mmol/kg) (t = -2.99, df = 7.87, p = 0.018).. Further studies should compare yoga to other form ofexercisetohelp determine whetheryogaalonecanalterGABA levels.

# StudiesRelatedtoLaughterTherapy

# Hohnson,et.al.,(1990)conductedonWellnessthroughacomprehensivelaughter therapy among 103 adults in Sweden. Participants were instructed in a 6-dayintensive programmed of laughter therapy and related Practices, which they practiceddaily for six weeks. The control group was instructed to relax in an armchair each dayduring the same period. Stress Scale was used to measure the degree of stress, StressandEnergyTestmeasuredindividual’senergyandstressexperiences.Thedatasuggests that participants in the laughter therapy group, but not the control group,lowered their degree of stress, and also increased their degree of optimism. These dataindicated that the experimental protocol thatwas developed was safe, compliancelevels were good, and a full-scale trial is feasible. The data obtained suggest that adultparticipants may improve their wellness by learning and applying a programmed basedonlaughtertherapy.

# Martin,RA.,et.al.,(1998)conductedoneffectoflaughtertherapybasedonlifestyle intervention on stress in AIIMS, New Delhi. The aim of the study was toassess the short-term impact of a comprehensive but brief lifestyle intervention, basedon laughter therapy, on stress levels in normal and diseased subjects. The subjects hadhistory of physical and psychiatric disorders like depression, anxiety, and stress. Theintervention consisted of laughter therapy and relaxation techniques. The outcomemeasures were stress scores, taken on the first and last day. The stress scores weresignificantly reduced. The observations suggest that a short educational program forlifestyle modification and stress managementleads to remarkable reduction in thestressscores withinaperiodof10days.

Wood,C.,et.al.,(2008) Conducted done to evaluate the effects of three differentproceduresnamely relaxation,visualization andlaughter therapy on perception ofphysical andmental energy on positiveandnegativemoodstates,study samplesconsisted of 71 normal volunteers in the age group of 21 to 76 years. Study findingsrevealed thatlaughter therapy produced a significantly greaterincreasein perceptionof mental and physical energy and feeling of alertness and enthusiasm than the othertwoprocedures(P<0.05).Relaxationmadesubjectsignificantlymoresleepyandsluggish immediately after the session than laughter therapy (P<0.05). Visualizationmade them more sluggish but less content than laughter therapy (P<0.05) and moreupset than relaxation after the second session (P<0.05). Thus, a 30 minutes program oflaughter therapy which can be practiced even by elderly have a significant effect onperceptionofbothmentalandphysicalenergyandincreasedhighpositivemood.

Vitulli,Wf.,(2005) A study was conducted on effectof laughter therapy onstress andanxiety of women.The aim of study was toevaluate theinfluence oflaughtertherapyinrelievingsymptomsofstressandanxietyinwomen.Thestudyinvolved a convenience sample of women who were referred to a laughter club fromJuly2006toJuly2007.Participantswererandomlyassignedintoanexperimentalanda control group. The experimental group (n=34) participated in twice weekly laughtertherapy classes of 90 min duration for two months. The control group (n=31) wasassigned to a waiting list and did not receive laughter therapy. Both groups wereevaluated again after the two-month study period. The result revealed that averageprevalenceofstressintheexperimentalgrouppreandpostlaughtertherapyintervention was 12.82+/-7.9 and 10.79\*/-6.04 respectively, a statistically insignificantdecrease(p=0.13).However,whentheexperimentalgroupwascomparedtothecontrolgroup,womenwhoparticipatedinlaughtertherapyclassesshowedasignificantdecreaseinstateanxiety (p=0.03)andtraitanxiety (p=0.03)andtraitanxiety(p<0.001).

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# Studies Related to the Effectiveness of Laughter Therapyon PromotionofMentalHealthamongold age People

VenkataRao.,(2004) Over the past 30 years, there has been a plentitude ofresearch into the health benefits of humor and laughter for healthy, sick or stressedadults and children as well as for senior citizens. Medical research supports our humaninstinctthatpeoplewhosmileandlaugharehappy,whereasthosewhoareinexpressive are usually unhappy. Research shows that humor stimulus result in mirth,which elicits a primarily emotional response with psychological effects and laughter,whichelicitsaphysicalresponsewithphysiologicaleffects.Themanyphysiologicalbenefitsoflaughterinorderadultshavebeenclearlydemonstrated.Medicalresearchisbased onexperimentsusingfunnyvideosand cartoonsforhumorsessions

Mak,w.,et.al., conducted to assess the Sense of humor and longevity: olderadults self-ratings compared with ratings for deceased siblings. The sample of 33 olderadults(meanage–72.3yr.)ratedthemselvesandadeceasedsiblingontheMultidimensional Sense of Humor Scale. A significant mean difference between thetwogroups on the subscale of Humorappreciation suggestedthe possibility of apositive relationshipbetweenhumorappreciationandlongevity.

Yoder,MA.,(Feb 78) conducted to describe which categories can be included inthe term ‘humor’ and to describe the effects and functions that humor has on people.The data were based on 20 interviews, nine of which were made with women and 11with men who had no formal connection to health services or nursing. Ages rangedfrom 17 to 75 years and all the interviewers were form Sweden. The research questionwas:‘whatdoeshumormeantoyou?.Theanswerswerelabeledas(laughter,happiness,unforeseenevents/situations,realhumor/artform,jokes,playsonwords/puns,situationcomedyandpoliticalsatire).Thestudyconcludedthattheessence of humor can be categorized as weapon/protection. Humor has effects andfunctionsonindividuals.

 **METHODOLOGY**

**Research approach**

In view of the nature of the problem under the study and to accomplish the objectives of the

Studya quantitative approach was adopted.

**Research design**

One group pre-test,post-test research design was used in this study, to measure the effectiveness of

Laughter therapy on a sample of 50 respondents

|  |  |  |  |
| --- | --- | --- | --- |
| Group | Pretest | Intervention | Post-test |
| StudyGroup | O1 | X | O2 |

**Table:1 Schematic Representation of Research Design**

|  |  |
| --- | --- |
| Key: |  |
| O1 | = | Pre-testassessmentoflevelofmentalhealth |
| X | = | InterventiononadministrationofLaughtertherapyfor20minutes |
| O2 | = | Post-testassessmentlevelofmentalhealth |
| O1-O2 | = | Effectiveness ofLaughter therapyIntervention |

**Setting of the study**

The study has been conducted at St. Joseph old age home, Coimbatore. Criteria for selecting this study were geographical proximity, feasibility of conducting the study, availability of samples and familiarity of investigator with setting.

**Variables under study**

**Independent variable**

Administration of Laughtertherapy onpromotion of Mental Health among old age people.

**Dependent variable**

Mental Healthlevel of old age people residing in selected oldage home.

# Extraneousvariable

#  Inthispresentstudy age,gender,maritalstatus,religion,typeoffamily,number of children, illness, educational qualification, experience, hobbies, awarenessoflaughtertherapyandsourceofinformationare extraneous variable.

**Population**

 Target population for the study was the old age people of St. Joseph old age home Coimbatore.

**Sample and Sample Size**

 The sample for the present study comprised of 50old age people of St.Josephold age home Coimbatorewas selected conveniently.

**Sampling Technique**

Nonprobabilityconvenientsamplingtechniquewasusedtoselectsample.

**Criteria for selecting the Sample**

**Inclusion Criteria**

Theold age peoplewhoarewillingtoparticipate.

Theold age people above60years of age.

Theold age peoplewhoareinterestedtoparticipatinginLaughtertherapy.

**Exclusion Criteria**

The old age people who are having physical disabilities like hearing loss,lossof vision etc.,and mentaldisabilities like loss of memory or any cognitiveproblems.

**Description of the tool**

The tool is selected and prepared by the investigator to assess the effectivenessof laughtertherapy on the promotion ofmental healthamongold age peopleare;

Tool-1:Socio-demographicProforma.It consists of 13 items; which include age, gender, marital status, religion, typeof family, number of children, , illness, educational qualification, experience, hobbies,awarenessofanlaughtertherapyandsourceofinformation.

Tool-2:TheGeneralhealthQuestionnaire. Thegeneralhealthquestionnaireconsistsof28items.Eachitemhas4alternative responses. The responses of positive items are better than Usual, Same asUsual,Worse than Usual, Much Worse than Usual. The responses of negative itemsare Not at all, No more than usual, rather more than usual, much more than usual. Inthat, there are 7 positive (A1,C1-C7) and 21 negative items (A2-A7,B1-B7,D1-D7).The score given for each negativeitem is 4for ‘NotatAll’,3for ‘Nomore thanusual’, 2 for ‘Rather more than Usual’ and 1 for much more than usual and it isreversed for positive items. The maximum score is 112 and minimum score is 28.Based on the score, the Mental health level is categorizedintoGood (above 75% ofthe score), satisfactory (51%-75% of the score) and poor (below 50% of the score).Whenthescoreincreases,itindicatesthat thementalhealthlevelalsoincreases.

**Content Validity**

 The blueprints of the tool along with objectives of the study andcriteria of scales were submitted to experts for content validity. Experts were from thefield of Psychiatric Nursing, Psychiatrist, Clinical Psychologist, Statistician and expert inthefieldoflaughtertherapy.Basedonthepilotstudyandexperts’suggestions,fewmodificationsandrearrangementsoftheitemsweredone.ThereliabilityofthetoolswascomputedbyusingsplithalftechniqueemployingKarlPearson’sformula.

**Reliability**

 Reliability to the tool was established by using split half technique. The reliability of the split half test was found by using Karl Pearson co-relation by deviation method and found tobe 0.7 and 0.5. Hence the tool was found reliable.

**Pilot study**

After obtaining formalapproval from the Mother Superior of St. Josephold agehome,Coimbatore. The researcher conducted pilot study in November 2013.Fiveold agepeoplewereselectedbyusingconvenientsamplingtechnique,Who were selected for pilot study wereexcluded from the main study. Informed consent was obtained in written from thesample after explaining the purpose of the study and assuring them to maintain theconfidentiality of the information provided. The data was collected by interviewingthem by using thegeneral health questionnaire. After the assessed Mental Health level on pretest, laughter therapy was administered to the old age people. Thetimetakenforcompletingthelaughtertherapy schedule was 20 minutes. The laughter therapy schedule was continued one week. After a week post –test level of Mental Health was assessed. A concise data analysiswas doneusing descriptive statistics and inferential statistics. The pre-test findings revealed that4 (80%) of the respondents had satisfactory mental health, 1 (20%) of the respondentshad the poor mental health and none of the respondents had good mental health. Thepost-test findings revealed that 4 (80%) of respondents had good mental health, 1(20%)ofrespondentshadsatisfactorylevelofmentalhealthandnoneoftherespondents had poor mental health. The comprehension, feasibility and time requiredtocompletethescalewereassessed.. The language was found to be clear and all the itemsin the tool were clearly understood by the subjects without ambiguity. Hence, the toolwasfoundtobe feasible andpracticableforthemainstudy.

**RESULTS**

Thischapterdealswith Dataanalysisandinterpretation ofdataregardingeffectiveness of laughter therapy on the promotion of mental health. The data wascollected from the respondents before and after the laughter therapy programme. Thecollectedinformationwasorganized,tabulated,analyzedandinterpretedusingdescriptive and inferential statistics. Analysis was done based on the objectives andhypothesisofthestudy.

 **Table: 2 Frequency and Percentage DistributionofMentalHealthAmong old age withpost-interventionLevel**

|  |  |  |  |
| --- | --- | --- | --- |
| **Mentalhealth** | **Category** | **Frequency(n)** | **Percentage (%)** |
| **Good** | **>75%Score** | **36** | **72** |
| **Satisfactory** | **51-75%Score** | **14** | **28** |
| **Poor** | **<50%Score** | **0** | **0** |

 **Table: 3 evaluatetheeffectivenessof Laughter therapy bycomparing Pre-test and post-test**

**MeanMentalhealthScoreamongold agepeople**

|  |  |  |  |
| --- | --- | --- | --- |
| Aspects | Mean | SD (%) | Paired“t” Test |
| Preintervention | 54.82 | 5.6 |  24.2\* |
| Post intervention | 84.40 | 6.1 |

**\*SignificantatP\*>0.05 level**

 **Table: 4 Association of post- test level of MentalHealthof old age people with their**

**DemographicVariables.**

|  |  |  |  |
| --- | --- | --- | --- |
| **S.NO** | **DemographicVariable** |  **LevelofMentalHealth** | **X²** **Value** |
| **Good** | **Satisfactory** | **Poor** |
| 1 | Age(inyears) |  |  |  |  |
|  | 60-65 | 3 | 14 | 4 | 4.36 |
|  | 66-70 | 2 | 13 | 1 |  |
|  | 71-75 | 3 | 6 | 1 | df=6 |
|  | Above75 | 0 | 3 | 0 | NS |
| 2 | Gender |  |  |  |  |
|  | Male | 3 | 12 | 1 | 0.78 |
|  | Female | 5 | 24 | 5 | df=2 |
|  |  |  |  |  | NS |
| 3 | Religion |  |  |  |  |
|  | HinduChristian | 42 | 1411 | 32 | 1.424 |
|  | Muslim | 1 | 8 | 1 | df=6 |
|  | Other | 1 | 3 | 0 | NS |
| 4 | EducationalStatus | 0421 | 6969 | 2121 |  |
|  | Illiterate |  |
|  | SSLCHSCGraduatePG&Above | 6.61df=NS |
| 5 | Maritalstatus |  |  |  |  |
|  | Unmarried | 0 | 4 | 1 |  |
|  | Married | 5 | 15 | 3 | 4.29 |
|  | separate | 0 | 4 | 1 | df=8 |
|  | Divorced | 1 | 5 | 1 | NS |
|  | Widow/Widower | 2 | 8 | 0 |  |
| 6 | Hobbies |  |  |  |  |
|  | Games | 2 | 3 | 1 | 5.13 |
|  | ListeningMusic | 11 | 9 | 2 | df=6 |
|  | Reading | 7 | 6 | 0 | NS |
|  | WatchingTV | 26 | 18 | 3 |  |
| 7 | Illness |  |  |  |  |
|  | Yes | 7 | 23 | 4 | 1.68 |
|  | No | 1 | 13 | 2 | df=2 |
|  |  |  |  |  | NS |
|  | Ifillness |  |  |  |  |
|  | Hypertension | 3 | 4 | 1 |  |
|  | DiabetesMellitus | 1 | 4 | 0 | 6.74 |
|  | Arthritis | 2 | 6 | 1 | df=10 |
|  | VisionProblem | 0 | 7 | 1 | NS |
|  | Others | 1 | 3 | 1 |  |
|  |  |  |  |  |  |
| 9 | Type ofFamily |  |  |  |  |
|  | Nuclear | 31 | 22 | 3 | 2.13 |
|  | Joint | 16 | 12 | 2 | df=4\* |
|  | Extended | 3 | 2 | 1 | NS |
| 10 | NumberofChildren |  |  |  |  |
|  | One | 11 | 9 | 1 | 1.68 |
|  | Two | 22 | 17 | 2 | df=4\* |
|  | Three& Above | 17 | 10 | 3 |  |
| 11 | AwarenessofLaughterTherapyYesNoInformationofLaughterTherapyFamilymember&RelativesFriends & NeighborsPrinted MediaRadio&Tv |  |  |  |  |
|  | 14 | 10 | 1 | 0.33 |
|  | 37 | 26 | 5 | df=2\* |
|  | 3 | 2 | 1 | 5.27 |
|  | 1 | 1 | 0 | df=8\* |
|  | 2 | 1 | 0 |  |
|  | 8 | 7 | 0 |  |

**\*SignificantatP\*>0.05 level**

 **DISCUSSION**

The findings of data analysis were discussed in accordancewiththeobjectivesandstatedhypotheses ofthe

Presentstudy.

**Characteristics of demographic variables**

 Inrelationtotheagegroup,majority21(42.0%)oftherespondentsarebelongedtotheagegroupof60-65years,Ingender,majority34(68%)oftherespondents are female, Based on the marital Status, majority 23(46%) of respondentsare married. According to educational qualification, most of the respondents 14(28%)are educated up to SSLC level. In the category of loss of spouse 7(14%)lost theirwife, 3(6%) lost their husband. On the aspect of religion, majority 21(42%) of therespondents are Hindus, In relation to the presence of illness, the majority 34(68%) ofrespondents are having illness, out of that 8(16%) are having vision problem and5(10%) fall under other category of illness like bearing

loss, back pain etc., whereas6(32%) are physically healthy. On the aspect of hobbies 26(52%0 are having thehobby of watching television, In the type of family, majority 31(62%) are belonged tonuclear family. In relation to no. of children, most of the respondents 22(44%) arehaving two children. According to awareness of the laughter therapy, most of therespondents 14(28%) are having awareness of laughter therapy.Out of that8(16%)gotinformationthroughradioandtelevision,3(6%)gotawarenessfromfamilymembers and relatives, 2(4%) from printed media and the remaining only 1(2%) gotinformationfromfriends andneighbors.

**Testing of Hypothesis**

The pretest results show that out of 50 samples,26(52%) of the respondentsare havingmental health atsatisfactory level,24(48%) of them arehaving poormentalhealthandnoneofthemcomesundergoodmentalhealth.Theposttestresult i s 36(72%) of the respondents are having good mental health, 14(28%) of them arehaving mental health at satisfactory level and none of them comes under poor mentalhealth.

 The overall pre intervention mean mental health score was 48.94% ±5.6 andpost intervention mean mental health score was 75.35% ±6.1. So the difference ofmental health level was observedby mean mental health score of 26.41 ±0.5. Sincethe post intervention mental health level was more than the pre intervention mentalhealth level,itwasinferredthatthelaughtertherapywaseffective.

The comparison of pre and post intervention mental health score of old agepeople revealed that t=24.2. Therefore the research hypotheses (H1) is accepted andnullhypothesesis rejected.

**CONCLUSION**

This study concludes that the laughter therapy was effective on the promotionof mental health. So the laughter therapy is the best way for the complete and holisticcare of one’s mind and soul. It helps to alleviate our self from emotional and mentalconflicts. Laughter therapy helps the person to be in harmony with the co-existingenvironment. So this type of study can be conducted in large level in future to enhancethe importanceoflaughtertherapy.

The study was conducted to evaluate the effectiveness of Laughter therapy on Promotion of Mental health among old age people residing at St. Joseph old age home, Coimbatore. In the present study, 50 old age people were selected using convenient sampling method.

 The research approach adopted for the study is pre experimental design with a view to measure the Mental Health on pre-test and effectiveness assessed in post-test to assess the effectiveness of Laughter therapy. The data were collected by a General Health questionnaire. The data was interpreted by suitable statistical method.

This chapter deals with the following conclusions

 On the basis of the findings of the study the below said conclusions were drawn. It also

brings out the limitations of the study into picture. The implications are given on the various aspects like nursing education, nursing practice, nursing administration and it also gives insight to future studies.

The Mental Health of old age people was poor as assessed during the pre-test, whereas the Mental Health has considerably promoted during the post-test.

 Laughter therapy was effective in improving the Mental Health of old age people. The significant difference between pre-test and post-test knowledge score was demonstrated by using‘t’ test. The analysis of mean, standard deviation of the Mental Health in the pre-test and post-test revealed that the mean pre-test Mental Health score was 54.82 whereas the post-test mean score was 84.40This shows high mean difference in the effectiveness of Laughter therapy.

 It can be inferred that the Mental Health score of the of old age people were inadequate in the pre-test. The Laughter therapy was considerably effective in increasing the Mental Health level of old age people.

Theanalysisrevealedthattherewasasignificantassociation relationshipbetweenpostinterventionmentalhealthscoreof old age peoplewiththesocio-demographic variables such as religion andmarital status. The obtainedvalue wasless that the table value at0.05 level of significance. So the research hypothesis (H2)isacceptedandthenullhypothesisis rejected.

**Implications of the study**

**Nursing Practice**

Today, health care delivery system has changed from a care-oriented approachto promotion of health and prevention of illness oriented approach. So, it focusesmainly on primary prevention, which is aimed at health promotion. Considering thesefactors. Nursing personnel can contribute much for the promotion of mental health bycreating awareness of laughter therapy on the Hospital through health programme,campsandspecialprogramme, andmassmediaeducation.

**Nursing Education**

The changing values of society, globalization, urbanization, industrializationetc. haveinfluenced the mental health. It is today’ need to involve mental healthrelated education in nursing curriculum at basic level, which will prepare nurse toaddress the issue of mental health both in the clinical as well as community field. Theadvanced nursing care aims in the provision of holistic care and hence, family is anunavoidable part of care. So the nurse with proper education in this regard should havea clear cutidea about the physical, psychological, social, economic, occupational,familial,maritalandsexualhavoctoworkontheneedbase approach.

**Nursing Administration**

Themainfocusofnursingadministrationistoorganizeseminarsandworkshopandothereducationprogramforstaffnursesasapartofin-serviceeducation program by which knowledge towards mental health promotion shall beenhanced. Nurse administrator can make a separate budget in each hospital to develophealth-teaching material in this regard and make accessible to the needy population.Theyalsocanstart trainingofvolunteerstoprovidespecializedcaretoold agepeople

**Nursing Research**

Nurses in developed countries regarding mental health among old age peoplehave conducted the studies. In India,very few studieshavebeen conducted in thisarea. So investigation has to be carried out on large scale to assess mental health leveladopted by the old age people. This helps to give meaningful, need-based informationandcreateawareness towards mentalhealth.

**Limitations**

Thepresent studyhasfollowing limitations:

Only50old age peoplewere selectedas asample.

Randomizationwasnotdone.Sothesamplemaynotbethetruerepresentationofthepopulation.

Study wasconductedonlyinselectedold age homeinCoimbatore.Hencegeneralizationispossibleonlytotheselectedsettings.

Duetotimeconstraintaconvenientsamplingtechniquewasused.

**Recommendations**

Basedonthefindingsofthestudy,thefollowingrecommendationsaremade

A similarstudycanbereplicatedinotherpartsofthe area andonlarge sample.

Anexperimentalstudycanbe carriedouttofindouttheeffectivenessof laughtertherapyforthepromotionofmentalhealthamongold age people.

A similar study can be replicated on sample with different demographic characteristics.

Acrosssectionalstudyshallbeconductedtoassesstheimpactoflaughtertherapyonthepromotionofmentalhealthamongold agepeople.

A follow up study among this population after a year can ascertain the effectiveness of the Laughter therapy further

**SUMMARY**

 The purpose of the study is to assess the Mental Health of old age people The study was conducted at St. Joseph old age home, Coimbatore.50 old age people were selected by using convenient sampling technique. The investigator first introduced her to the authorities and obtained the permission for the study. The study design was pre experimental design in nature, conducted over a period of four weeks.one group pre-test and post-test design with pre experimental design was adopted to evaluate the effectiveness of laughter therapy on promotion of Mental Health among old age people. A General Health questionnaire were prepared and used to collect the data to assess the level of Mental Health of old age people.

 The questionnaire was validated by the subject experts and the reliability of the test was tested.

 The tool was administered and the collected data was analyzed. The data gathered were analyzed and interpreted according to the objectives. Descriptive statistics were frequency, percentage, mean and standard deviation. Further inferential statistics like chi-square was included to test the hypothesis at 5 percent levels of significance and the data obtained are presented in the graphical forms.

Major findings of the study

 The data collected were edited, tabulated, analyzed, interpreted and findings were presented in the form of tables and diagrams represented under following areas:

Section – A

This section deals with the following

To assess the level of mentalhealth among old agepeople

Distribution of old agepeople according to their level ofmentalhealth in tabulated form.

Section – B

 It shows effectiveness of Laughter therapy on promotion of Mental Health among old age people. The distribution of mean, standard deviation of pre-test, post-test and enhancement score in tabulated form.

 Graphical representation of comparison of pre-test, post-test and enhancement score.

Section – C

 It shows the relationship between the post-test Mental Health scores.

Distribution of mean of post-test scores with co-efficient of co-relation in tabulated form

Section – E

 It shows the association of post-test Mental Health scores of old age people with their selected demographic variables.

Distribution of frequency and percentage of selected demographic variables in association with post-test Mental Health scores in tabulated form.

**The findings are summarized as follows:**

**Findings regarding demographic variables**

Inrelationtotheagegroup, majority21(42.0%)of respondentsarebelongedtothe agegroupof50-55years.

Ingender,majority36(72.0%)ofthe respondentsare female,

BasedonthemaritalStatus, majority23(46%)ofrespondentsare married,

Accordingtoeducationalqualification,mostoftherespondents14(28%)areeducateduptoSSLC level.

Basedorreligion,majority21(42%)oftherespondentsareHindus.

In relationtotheillness,themajority 34(68%)of respondentsarehavingillness, out of that 07(14%) are hypertensive, 06(12%) are diabetic, 09(18%)arehaving arthritis, 08(16%) are having vision problem and 04(08%) fall underother category of illness like hearing loss, back pain, etc., whereas 16(32%) arephysicallyhealthy.

On the aspect of hobbies half of the respondents 26(52%) are having the hobbyofwatchingtelevision

According to the type of family, majority 31(62%) of them are belonged tonuclearfamily,

In relation to no. of children, most of the respondents 22(44%) are having twochildren,

According to awareness of laughter therapy, most of the respondents 13(26%)are having awareness of laughter therapy out of that 7(14%) are known throughradio and television, 03(06%) were getting awarenessfrom family membersand relatives, 02(04%) from printed media and only 01(02%) were gettinginformationfromfriends andneighbors.

# FindingsRelatedToPre-TestandPost-TestMentalHealth Score

Thepretestscoreofthestudyrevealedthatthemajority26(52%)oftherespondents are having mental health at satisfactory level, 24(48%) of them arehavingpoormentalhealthandnoneofthemcomesundergoodmentalhealth.

The post test score of the study revealed that the majority 36(72%) of therespondentsarehavinggoodmentalhealth,14(28%)ofthemarehavingmental health score at satisfactory level and none of them comes under poormentalhealth

**Findings regarding the evaluation of effectiveness of Laughter therapy on promotion of Mental Health**

 Mean post-test Mental Health score 84.40 with SD is 6.1 higher than the mean pretest knowledge score 54.82 with SD5.6. In order to test the difference between the two means, paired t test was computed and obtained t value 24.2 was found to be significant at 0.05 level .Hence, it is inferred that there is significant increase in the level of Mental Health of old age people after the Laughter therapy.

**Findings regarding the association between the post-test Mental Health scores with selected demographic variables.**

The analysis of association of selected Socio-demographic variables with postintervention level of mental health using chi-square test revealed that there was asignificantassociation between the postintervention mental health scores and theselected socio-demographic variables such as marital status and religion. It was foundtobesignificantat0.05%level.

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