EFFECTIVENESS OF LAUGHTER THERAPY IN REDUCTION OF DEPRESSION AMONG SENIOR CITIZENS RESIDING AT SELECTED OLD AGE HOME IN VIRUDHUNAGAR, TAMILNADU.

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

APRIL – 2012

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By

Reg. No. 30105445

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APRIL – 2012

MATHA COLLEGE OF NURSING

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CERTIFICATE

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Signature : ……………………………………………………….

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APRIL -2012

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Approved by the Dissertation Committee on

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Madurai.

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

APRIL –2012

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// ABSTRACT

Depression, an illness that involves changes in brain chemicals. Depression drains all the joy of our life and leaves you feeling helpless, worthless and unable to cope. 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. In India, a survey has shown that 4% of the population are suffering from an episode of depressive illness, especially senior citizens. Laughter therapy consists of a set of pre-structured laughter exercises that usually release endorphins, neurotransmitters, reduce stress hormones and feel happier and healthier . In this study laughter therapy has been used to reduce the senior citizens depression.

STATEMENT OF THE PROBLEM

A study to assess the effectiveness of laughter therapy in the reduction of depression among senior citizens residing at selected old age home in Virudhunagar.

METHODOLOGY

The quantitative research approach was used in this study. The research design adopted for this study was quasi experimental design. The study was conducted in Dhanaswamy Parimaladevi Social welfare Trust (Old age Home). Purposive sampling technique was used for sample selection . The sample size was 60 senior citizens with mild depression who fulfilled the inclusion criteria.

OBJECTIVES

1. To assess the pretest level of depression in experimental and control group among senior citizens residing at selected old age home in Virudhunagar.
2. To assess the post test level of depression in experimental and control group among senior citizens residing at selected old age home in Virudhunagar.
3. To compare the pre and post test level of depression in the experimental group among senior citizens residing at selected old age home in Virudhunagar.
4. To find out the effectiveness of laughter therapy in experimental and control group in the reduction of depression among senior citizens residing at selected old age home in Virudhunagar.
5. To find out the association between post test level of depression in experimental and control groups with selected demographic variables such as age, gender, religion, education, previous occupation, marital status, family support, source of income, period of stay and mode of entering into an old age home.

HYPOTHESIS

- The mean post test depression score of the elderly will be significantly lesser than the mean pre- test depression score of the senior citizens residing at selected old age home among experimental group.
- There will be a significant association between the post test depression level of the senior citizens and their selected demographic variables such as age, gender, religion, education, previous occupation, marital status, family support, source of income, period of stay and mode of entering in to an old age home among experimental and control group.

MAJOR FINDINGS:-

- In the experimental group, 6.66% of the sample belonged to the age group of 70-79 years whereas only 36.66% of the sample belonged to the age group of 60-69 years. Female 66.66%, dominated the Male 33.33% and all of them 100% belongs to the Hindu community. The Number of illiterate higher 50%, than the literate. The majority of them (63.33%) was House wife or unemployed. 80% were married and 90% of the sample are having adequate family support. 93.33% of the sample were getting income from family members. The majority of them 60%, were staying in an old age home for 6-10 years and 70% as their self interested entered into an old age home.
- In the control group predicts the majority 70% of the samples belonged to the age group of 70-79 years whereas only 20% of the samples belonged to the age group of 60-69 years. Female 63.33%, dominated the male 36.66% and all of them100%, belongs to the Hindu community. The number of illiterate higher 53.33% than the literate. The majority of them 66.66% were Housewife or unemployed. 86.66% were Married . 93.33% of the sample were getting good family support and 93.33% were getting income from family members. The majority of them 83.33 % were staying 6 - 10 years in an old age home and 96.66% as their self interested entered into an old age home. s
- The level of depression in pretest experimental and control group, 4 (13.3%) and 7 (23.3%) comes under type IV score level. In pretest experimental and control group 20 (66.7%) and 19 (63.3%) comes under type V score level and Pretest experimental and control group 6 (20%) and 4 (13.3%) comes under type VI score level . None of them comes under type I, type II, type III level of score in pretest experimental and control group.

- ❖ The level of depression in the post test experimental group, 20 (66.7%) comes under type 1 score level, whereas in post test control group, none of sample comes under this score. In post test experimental group 10 (33.3%) comes under type II score level where as in post test control group none of the sample comes under this group. But in post test control group 5 (16.7%) comes under type IV score, 21 (70%) comes under type V score, 4 (13.3%) comes under type VI score.

- ❖ In the post test mean score level of depression was lesser than the pre test mean score level of depression in the experimental group, the paired" t" value was t=34. 056 and the table value was 2.660 which as shown that it was significant at $p < 0.01$ level.

- ❖ The effectiveness of laughter therapy has been experimental on both experimental and control groups. The post test level of depression in the experimental group (5.13) is lesser than the control group (15.83). The calculated value was 33.335 which were higher than the table value 2.660 which indicated that the level of depression as been reduced after the laughter therapy

- ❖ There was a significant association between level of depression and their selected demographic variables such as-source of income and mode of entering into an old age home in the control group .

- ❖ There was no significant association between level of depression and their selected demographic variables such as age , gender, religion, education, previous occupation, marital status, family support, source of income , period of stay and mode of entering into an old age home in the experimental group.

RECOMMENDATION

1. A Longitudinal study can be undertaken to see the long term effects of laughter therapy in the reduction of the level of depression.
2. It can be conducted with large sample size to generalize the findings.
3. A similar kind of study can be conducted to assess the effect of laughter therapy on self esteem, coping and life satisfaction of senior citizens.
4. A similar study can be conducted in reduction of level of depression with other therapy.
5. A comparative study can be conducted for clients residing in the psychosocial rehabilitation center and clients receiving treatment in hospital settings.

CONCLUSION:

Care of the human mind is the noblest branch of medicine. Depression is common in late life, affecting nearly 5 million people out of 30 million of the aged above 65, Also pharmacotherapy is contradicted in many senior citizens because of medical illness like diabetes, hypertension, stroke etc.. So there is a need for identifying other new therapies, that's helpful to reduce the depression of senior citizens. Laughter therapy is a new and popular form of therapy, we need to laugh because it is our weapon we have against everything in the world. Psychotherapists have discovered laughter as an aid in the treatment of several clinical disorders, most notable depression. Laughing also relaxes the body and reduce problems associated with depression, high blood

pressure, strokes arthritis and ulcers. As a nurse we should participate in creating awareness and also in providing laughter therapy to the needy people. So, as a whole, Laughter therapy is effective in the reduction of depression among senior citizens which is proven in Evidence Based Practice.

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- www.theherbsplace.com
- www.freewebs.com

APPENDIX - I

A LETTER SEEKING EXPERTS OPINION FOR THE CONTENT VALIDITY OF THE TOOL

From

Ms. Suganthi. S,
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 final year student of Master of Nursing in Matha College of Nursing, Manamadurai. In practical fulfillment of Master degree in Nursing, I have selected the topic mentioned below for the research project to the submitted to the Dr.M.G.R. Medical University, Chennai.

STATEMENT OF THE PROBLEM.

A STUDY TO ASSESS THE EFFECTIVENESS OF LAUGHTER THERAPY IN REDUCTION OF DEPRESSION AMONG SENIOR CITIZENS RESIDING AT SELECTED OLDAGE HOME IN VIRUDHUNAGAR.

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 would improve the problem statement and objectives.

Thanking you,

Yours sincerely,

Manamadurai
Date :

(S.Suganthi)

APPENDIX II

LIST OF EXPERTS CONSULTED FOR THE CONTENT VALIDITY OF A RESEARCH TOOL:

1. **Dr. Ganesh Kumar, M.D., D.P.M.,**
   Consultant psychiatrist,
   M.S. Chellamuthu trust &research center, Madurai.

2. **Prof. (Mrs) Shabera Banu, M.Sc.. (N),**
   Principal ,
   Matha College of Nursing, Manamadurai.

3. **Prof. Mrs. Kalaikuruselvi., M.SC(N), (PhD)**
   Vice principal
   Matha College of nursing, Manamadurai

4. **Mrs. Thamarai Selvi, M.Sc., (N),**
   Additional Vice Principal and Head of the Department of Mental Health Nursing Department,
   Matha College of Nursing, Manamadurai.

5. **Mrs. Baby, R, M.Sc. (N),**
   Vice Principal,
   College of Nursing, Puduchery,

6. **Prof. Mrs. Vijayakumari, M.Sc., (N),**
   HOD in Mental Health Nursing,
   Madras Medical College, Chennai.

7. **Mrs. Jesinda Vedanayagi, M.Sc (N),**
Asso, Professor, HOD in psychiatric Nursing
Sacred Heart Nursing College, Madurai.

8. **M/s. R. Jancy Rachel Daisy, M.Sc. (N),**
Reader,
CSI College of Nursing, Madurai.

APPENDIX III

MATHA COLLEGE OF NURSING
VAANPURAM, MANAMADURAI, SIVAGANGAI DT – 630606
A LETTER SEEKING PERMISSION TO CONDUCT STUDY IN SELECTED OLDAGE HOME IN VIRUDHUNAGAR.

Prof. Shaberabanu, M.Sc., (N) (Ph.D)

Principal.

To

The Manager,
Dhaswami parimaladevi social welfare trust,
Virudhunagar District.

Respected Sir/Madam,

Sub : Project work of M.Sc (Nursing) student at selected old age home in Virudhunagar.

I am to state that **Ms. Suganthi**. S is a final year M.Sc., Nursing student has to conduct a project, which is to be a partial fulfillment of University requirement for the degree of Master of Science in Nursing. The topic of research is **"A study to assess the effectiveness of laughter therapy in reduction of depression among senior citizens residing at selected oldage home in Virudhunagar"**. Kindly permit her to do the research work in your old age home under your valuable guidance and suggestion.

Thanking you,

Place :

Date :

(PRINCIPAL)

APPENDIX-IV

CERTIFICATE FOR VALIDATION

This is to certify that the tool developed for data collection by **Ms. SUGANTHI.S,** Final year student of Matha College of Nursing, Manamadurai (affiliated to Dr. MGR medical university) is validated and can proceed with this tool and conduct the main dissertations entitled "a study to assess the effectiveness of laughter therapy in reduction of depression among senior citizens residing at selected old age home in virudhunagar, Tamilnadu”.

Date:

Signature:

APPENDIX-V

CERTIFICATE OF ENGLISH EDITING

TO WHOMSOEVER IT MAY CONCERN

This is to certify that the dissertation work ***"a study to assess the effectiveness of laughter therapy in reduction of depression among senior citizens residing at selected old age home in virudhunagar, Tamilnadu".*** done by **Ms. SUGANTHI. S,** II year M.Sc Nursing, in Matha College of nursing, Manamadurai is edited for the English language is appropriate.

Signature:

APPENDIX – VI

CERTIFICATE COURSE IN MARINA BEACH LAUGHTER CLUB OF INTERNATIONAL MARINA CHAPTER AND WALKERS ASSOCIATION CHENNAI

T.R. KANNAN B.Sc., DATLs.
Chief Accounts Officer, Treasury Officer (Retd)
Secretary

Mobile : 98400 35988

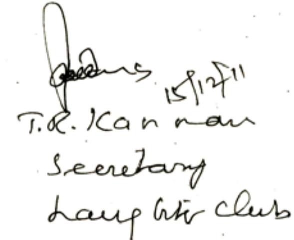
MARINA BEACH LAUGHTER CLUB OF INTERNATIONAL MARINA CHAPTER & WALKERS ASSOCIATION

34/5, Triplicane High Road, Chennai - 600 005.
Ph : 044-2858 3805, Email : kannantr52@yahoo.com

Date : 15.12.2011

TO WHOME IT MAY OUR CONCERN

This is to certify that **Ms. SUGANTHI. S M.Sc (N)** II year (2010-2012), is Studying in Matha College of Nursing, Vaanpuram, Manamadurai, Sivgangai (Dist) had undergone Laughter exercise training for 1 week (5.12.2011 to 9.12.2011) conducted by **Mr.T.R.KANNAN B.Sc., DATLs.** Chief Accounts Officer, treasury office (Retd) Secretary.



APPENDIX – VII

QUESTIONNAIRE -ENGLISH

PART –I

DEMOGRAPHIC DATA

1. Age : a) 60 - 69 yrs
   b) 70- 79 yrs
   c) 80-89 yrs

2. Gender : a) Male
   b) Female

3. Religion : a) Hindu
   b) Christian
   c) Muslim
   d) others

4. Education : a) illiterate
   b) Up to primary
   c) Up to higher secondary
   d) Above higher secondary

5. Previous occupation : a) house wife/ unemployed
   b) Labourer
   c) Private employee
   d) Government employee

6. Marital status : a) unmarried
   b) Married
   c) Widower/ widow
   d) Separated/ divorced

7. Family Support : a) Adequate
b) Inadequate

8. Source of income : a) Pension
b) Family members
c) Others (relatives, friends, neighbours)

9. Period of stay : a) up to 5 yrs
b) 6- 10 yrs
c) 11yrs and above.

10. Mode of enter into oldage home : a) Self interest
b) Children pressure
c) others (poor care by family members, physically ill)

PART- II

GERIATRIC DEPRESSION SCALE (GDS)

The geriatric depression scale developed by Yesavage et al, is a 30-item self report assessment used to identify depression in the senior citizens.

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?		

S/NO	QUESTIONS	YES	NO
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 other 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

APPENDIX – VIII

QUESTIONNAIRE - TAMIL

gphpT - m

jdpegh; Gs;sp tpguk;

1. taJ

    m. 60-69 taJ

    M. 70-79 taJ

    ,. 80-89 taJ

2. ghypdk;

    m. Mz;

    M. ngz;

3. kjk;

    m. ,e;J

    M. fpwp];bad;

    ,. ,];yhk;

    <. kw;w ,dj;jth;

4. fy;tp epiy

    m. gbf;fhjth;

    M. Muk;gf;fy;tp

    ,.Nky;epiyf;fy;tp tiu

    <. gl;lg;gbg;G

5. Ke;ija njhopy;

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

    M. jpdf;$yp

    ,. jdpahh; Ntiy

    <. muR Ntiy

6. jpUkz epiy

m. jpUkzk; Mfhjth;

M. jpUkzk; Mdth;

,. kidtpia ,oe;jth;/tpjit

<. gphpe;J tho;gth;/ kztpyf;F ngw;wth;

7. FLk;gj;jpdh; MjuT

m. NghJkhdJ

M. ,y;iy

8. tUkhdj;jpw;fhd top

m. Xa;T+jpak;

M. FLk;g cWg;gpdh;fs;

,. kw;wit(cwtpdh;fs;> ez;gh;fs;> mf;fk; gf;fj;jpdh;)

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

m. 5 tUlq;fs; tiu

M. 6 Kjy; 10 tUlq;fs; tiu

,. 11 tUlq;fSf;F Nky;

10. KjpNahh; ,y;yj;jpy; Nrh;e;j tpjk;

m.Ra tpUg;gk;

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

,. kw;wit (ftdpg;G ,y;yhik> cly;eyf;FiwT)

gphpT - M

kdr;Nrhh;T Nfs;tpj; njhFg;G

jaT nra;J Nfl;fg;gl;l >Nfs;tpfSf;fhd rhpahd gjpiy ‘Mk;” my;yJ ‘,y;iy” vd;w fl;lj;jpDs; VjhtJ xd;Wf;F kl;Lk; FwpaPL (✓) nraaTk; midj;J Nfs;tpfSf;Fk; gjpy;mspf;fTk;.

t.vz;.	Nfs;tpfs;	Mk;	,y;iy
1.	epiwa nray;fisAk; Mh;tq;fisAk; ePq;fs; iftpl;bUf;fpwPh;fsh?		
2.	cq;fs; tho;f;ifapy; xd;Wkpy;iy vd;W czh;fpwPh;fsh?		
3.	ePq;fs; mbf;fb Mh;tkpd;wp ,Uf;fpwPh;fsh?		
4.	jhq;fs; rpy rpe;jidfspypUe;J kPs ,aytpy;iyNa vd ftiyg;gLtJz;lh?		
5.	jhq;fs; cq;fSf;F vjph;fhyj;jpy; VNjDk; jPq;F epfoNghfpwJ vd mQ;RtJz;lh?		
6.	jq;fSf;F cjt ahUkpy;iyNa vd mbf;fb czh;tJz;lh?		
7.	jhq;fs; mbf;fb mikjpaw;Wk; czh;r;rptrg;gl;Lk; fhzg;gLfpwPh;fsh?		
8.	tPl;bw;F ntspNa Gjpa nray;fspy; <LgLtij tpl tPl;bw;Fs;NsNa ,Ug;gij jhq;fs; tpUk;GfpwPh;fsh?		
9.	jq;fs; vjph;fhyk; gw;wp m bf;fb ftiyg;gLtJz;lh?		
t.vz;.	**Nfs;tpfs;**	**Mk;**	**,y;iy**

10.	NtW gpur;ridfis tpl epidthw;wypy; jhd; mjpf gpur;rid ,Uf;fpwJ vd epidg;gJz;lh?		
11.	ePq;fs; mbf;fb Nrhh;Tw;Wk; > ek;gpf;if ,oe;Jk; Nrhfj;JlDk; fhzg;gLfpwPh;fsh?		
12.	jw;Nghija tho;f;if gadw;wjhf czh;fpwPh;fsh?		
13.	fle;jfhy tho;f;ifia gw;wp jhq;fs; mjpfk; ftiyg;gLtJz;lh?		
14.	Gjpa jpl;l Kaw;rpfspy; <LgLtJ jq;fSf;F fbdkhf cs;sjh?		
15.	cq;fspd; jw;Nghija #oy; ek;gpf;ifaw;wjhf czh;fpwPh;fsh?		
16.	ngUk;ghyhNdhh. jq;fistpl Nkyhdth;fs; vd jhq;fs; epidf;fpwPh;fsh?		
17.	rpwpa gpur;ridfSf;F $l jhq;fs; mbf;fb ftiyglgLtJz;lh?		
18.	jhq;fs; mbf;fb mo Ntz;Lk; Nghy; ,Ug;gjhf czh;fpwPh;fsh?		
19.	kdij xUepiyg;gLj;Jtjpy; jq;fSf;F rpukk; ,Uf;fpwjh?		
20.	rKfj;NjhL xd;wpapUj;jiy jq;fSf;F jtph;f;f Ntz;Lk; vd vz;ZtJz;lh?		
21.	mbg;gilah ePq;fs; cq;fsJ tho;tpy; jpUg;jp mile;J ,Uf;fpwPh;fsh?		
t.vz;.	**Nfs;tpfs;**	**Mk;**	**,y;iy**
22.	vjph;fhyk; gw;wpa ek;gpf;ifNahl ,Uf;fpd;wPhfsh?		

23.	vy;yh Neuq;fspYk; jhq;fs; ew;rpe;jidfSld; ,Uf;fpd;wPh;fsh?		
24.	jhq;fs; vy;yh Neuq;fspYk; kfpo;r;rpahL ,Ug;gjhf czUfpwPh;fsh?		
25.	jhq;fs; jw;nghOJ caph;tho;tNj Mr;rhpak; vd epidf;fpwPh;fsh?		
26.	tho;f;ifczh;r;rp Ntfj;ij cz;Lhf;Ftjhf fhZfpwPh;fsh?		
27.	KO cly; tYNthL ,Ug;gjhf jhq;fs; czh;fpwPh;fsh?		
28.	mjpfhiyapy; vOk;NghJ re;Njh\g;gLfpd;wPh;fsh?		
29.	KbntLj;jy; jq;fSf;F ,yFthd fhhpak; jhdh?		
30.	tof;fk; Nghy; cq;fs; kdJ njspTld; ,Uf;fpd;wjh?		

APPENDIX –IX

Laughter Therapy:

- Laughter session must take place in the morning.

- Duration of one session should not be more than 30 minutes including laughter , deep breathing and stretching exercises.
- One laughter lasts for 30 seconds to 45 seconds.

Basic Guidelines for a Laughter session :

1. All the participants will start laughing at the same time when the anchor person gives the command 1,2..3.
2. 2.People should not stand far away from each other. To laugh without jokes, eye contact is the key. During each type of laughter a person must maintain good eye contact with more than one of his neighbours.
3. Do not apply too much force while laughing, it should be more of a feeling and enjoying of the process.
4. One should try to feel free like a child and make funny gestures to make others laugh.

STEPS IN LAUGHTER EXERCISES:

Steps 1 : Deep breathing.

The session starts when one takes a deep breath through the nostrils, simultaneously raising the arms up towards the sky. One should keep on filling air into the lungs, as much as possible, and then hold one's breath for four seconds. Then the breath is released slowly and rhythmically by brining the stretched arms back to normal position.

Steps 2: Neck , Shoulder and arm stretching exercises .

Steps 3: Clapping a rhythm.

Ho-Ho Ha-Ha Exercises: All the members start chanting Ho-Ho,Ha-Ha in unison, with rhythmic clapping 1-2, 1-2-3. (Ho-Ho; Ha-Ha-Ha). The sound should come from the naval, so as to feel the movement of abdominal muscles, while keep the mouth half open. While chanting Ho-

Ho Ha-Ha, a smile should be maintained and the head and the body should swing forward and backward as if one is --'enjoying the exercise. This can go on for up to one minute.

Greeting Laughter: Again under the command of the anchor person, the members come a little closer to each other and greet each other with a particular gesture, while laughing in a medium tone and maintaining eye contact. One can join both the hands (Namaste laughter), or *do* **Aadaab** Laughter by moving one hand closer to the face (as Muslims greet each other), or one can bend at the hips and laugh by looking in the eyes of the neighbour (Japanese way) or there could many other ways of greeting according to the region, state or country. This is followed by Ho-Ho Ha-Ha chanting and clapping 5-6 times and deep breathing twice.

One-Meter laughter: This is the invention of a Laughter Club member dealing in cloth merchandise. It duplicates how we measure an imaginary one meter by moving one hand over the stretched arm of the other side and extending the shoulder. The hand is moved in three jerks by chanting Ae Ae, Aeee and then participants burst into laughter by stretching both the arms. First the imaginary measurement is done on the left side and then on the right. This cycle is repeated twice. Again, this laughter has a playful quality. People enjoy the chanting of Ae... Ae.. in a staccato manner.

Argument-Laughter: This laughter is competitive laughter between two groups separated by a gap. Two groups look at each other and start laughing by pointing the index finger at the members of the other group. Usually, the women are on one side and men on the other. This is also

quite enjoyable and helps to convert forced laughter into spontaneous giggles.

Cell phone laughter : Hold on imaginary cell phone to your ear and laugh.

Lion Laughter: This particular laughter has been derived from a yogic posture known as **Simha Mudra** (Lion Posture). In the lion posture, the tongue is fully extruded by opening the mouth wide, while eyes are kept wide open and hands are posed like the paws of a lion and the person roars like a lion. In Lion laughter, the basic position remains the same as stated above. The only difference is that people laugh with the tongue fully extruded instead of roaring. Lion Laughter gives very good exercise to facial muscles, the tongue and throat. It is also supposed to be good for the healthy functioning of the thyroid gland.

Swinging Laughter: This is an interesting kind laughter as it has a lot of playfulness. All the member move outwards by two meters to widen the circle. On instruction from the anchor person people move forward by making a prolonged sound of Ae Ae- Aeeeee, simultaneously raising the hands and they all burst into laughter while meeting in the center and waving their hands. After the bout of laughter, they move back to their original position. The second time they move forward by saying Oh-Ooooooo.. and burst into laughter. Similarly, the third and fourth times they make the sounds of Eh- Eh... E.... and Oh- Oh... 0... Many people are seen behaving like children and enjoying the fun.

Hearty Laughter: After the Ho-Ho Ha-Ha exercise, the first kind of laughter is hearty laughter. To initiate all kinds of laughter the anchor person gives a *command* 1,2,3... and everybody start laughing at the same

time. It builds up a good tempo and the effect is much better, rather than different members laughing with different timings. In a hearty laugh, one laughs by throwing the arms up and laughing heartily. One should not keep the arms stretched up all the time during a hearty laugh. Keep the arms up for a while and bring them down and again raise them up. At the end of a hearty laugh, the anchor person starts clapping and chanting Ho-Ho Ha-Ha 5-6 times. That marks the end of a particular kind of laughter. This is followed by two deep breaths.

CHAPTER I

INTRODUCTION

"If wrinkles must be written upon our brows, let them not be written upon the heart. The spirit should not grow old."

- James

We all like to laugh, and generally it makes us feel better. Laughter is a common physiological phenomenon that researchers are just beginning to study. When we laugh fifteen facial muscles contract, the larynx becomes half-closed so that we breathe irregularly, which can make us gasp for air, and sometimes, the tear ducts become activated. Nerves sent to the brain trigger electrical impulses to set off chemical reactions. These reactions release natural tranquilizers, pain relievers and endorphins.

We often laugh because we're happy, but laughing can also make us happy – and healthy. Laughter releases endorphins, neurotransmitters that have pain-relieving properties similar to morphine and are probably connected to euphoric feelings, appetite modulation, and the release of sex hormones. Studies have shown that laughter boosts the immune system in a variety of ways. Laughter increases the amount of T cells, which attack viruses, foreign cells and cancer cells. It increases B-cells, which make disease-destroying antibodies. Immunoglobulin A, an antibody that fights upper respiratory tract infections, and immunoglobulin G and M, which help fight other infections. All these immunoglobulins levels all rise due to laughing. The amount of stress hormones is also reduced by laughing. So when you feel better after laughing, you really are happier and healthier. It probably improves

coordination of brain functions, which increases alertness and memory, and helps clear the respiratory tract from coughing. Laughter increase blood oxygen.

Many more studies on laughter are being done across the country with amazing results. Laughing 100 (ha-ha-etc.) times a day gives the same cardiac workout as 10 minutes of aerobic exercise. While many experts are divided about whether laughter actually has medical benefits, all agree it doesn't hurt. Laughing relaxes the body and reduces problems associated with depression, high blood pressure, strokes, arthritis and ulcers.

Research suggests that laughter may also reduce the risk of heart disease. Historically, research has shown that distressing emotions (depression, anger, anxiety and stress) are related to heart disease. A study done at the University of Maryland medical center suggests that a good sense of humor and the ability to laugh at stressful situations helps mitigate the damaging physical effects of distressing emotions. There is well documented and ongoing research in this field of study (psych nurse, 2004). This has led to new and beneficial therapies practiced by doctors, psychiatrists, and other mental health professionals using humor and laughter to help patients cope or treat a variety of physical, mental and spiritual issues. So if you feel like you're getting sick or you don't have much energy, stop worrying about going to the gym or the health center. You just need to find funnier friends and first Sunday in May as world laughter day.

Depressive illness is observed in people from all countries and every culture, affecting both the sexes, sparing neither the rich nor the poor formenting all ages, forcing the exit of some through self destruction.

The term “depression” is so commonly used in everyday transactions that it fails to convince the people around that “Depression” could be a disease in itself. The depth and intensity of depressive illness is unusually not recognized and appreciated by the family members and people around. Depressive illness is in fact one of the most social agonizing illness and its real intensity is experienced only by the sufferer.

Hereditary factors either alone or along with the psychological factors make the individual vulnerable to depressive illness and the factors trigger the illness. These factors acting together or individually cause chemical changes in the brain which then manifests as symptoms of depressive illness. WHO forecasts that by 2020 depression will be the second largest illness after heart disease. It has been described as an epidemic of mental illness.

NEED FOR THE STUDY:

“Laughter is the sun that drives winter from the human face”

-Victor Hugo

“Seven days without Laughter make one weak”

-Joel Goodman

“Depression, an illness that involves changes in brain chemicals. Depression drains all the joy of our life and leaves you feeling helpless, worthless and unable to cope. But with help, you can enjoy life again”.

The prevalence of depressive illness is estimated to be around 3% per year (i.e.) there are about 40 crores people around the world who will develop a diagnosable and treatable depressive illness .In India, a survey has shown that 4% of the population have had or are suffering from an episode of depressive illness. That would put the number of persons suffering from depressive illness to be closer to around 3.5 crores.

In India among elderly (over 60 years if ages) the prevalence rate of psychiatric disorders was about 80-90/1000 population (M. S. Bhahia, 2004). In 2020, the proportion of “oldest old” is projected to be 22% in Greece and Italy; 21% in Japan, France and Spain, 20% in Germany. In several developing countries like cube, Argentina, the proportion will be 15% to 20% (Health action, 2004).

A study conducted in Malaysia on the prevalence of depression found that, the prevalence of depression in the elderly with the chronic illness was 20.2% (Black well publishes, 2002). Depression is common in late life, affecting nearly 5 million people out of 30 million of the Americans aged 65 and above. Both major and minor depression is reported, among that 13% were community dwelling older adults, 24% were older medical out patients, 43% were of both acute care and nursing home dwelling older adults (Lenore Kurlow, 1999).

So a few studies have investigated which patients with mood disorders have an increased suicide risk. These studies indicate that social isolation enhances suicidal tendencies among depressed patients. This finding is in accord with the data from epidemiological studies showing that persons who commit suicide may be poorly integrated into society. The chance of depressed old age persons killing themselves increases because they are single, separated, divorced, widowed or recently bereaved.

At the same time, the investigator has seen many aged persons (with or without a spouse) those who are living in joint family are also suffering much in day to day life. On the other hand, people working in abroad are unable to keep their parents along with them due to modernization of present day, time scheduled, speedy life, such a people are running behind the money to meet their luxurious life's requirements and parents themselves not interested to spend the life with their children in a modern city life. The son and daughter-in-laws are extending their expectations towards the opposite site, even beyond the boundary level, that is why, the gap between the generations is increasing sharply. Due to this family situation, the children are forced to leave their parents and grandparents in old age homes.

According to WHO (1999), the old aged person is considered as "a problem" by family members and a number of old age homes are on the increase. Currently there are about 350 old age homes in India. In Madurai there was only one old age home till 1970. The current status (2000) in that there are 37 old age homes in Madurai (Governmental & Non-Governmental organization). Meldon et al (1997) reports the prevalence of depression among the geriatric population when measured with a self rated depression scale, 47% of nursing home residents were depressed compared with 24% to those living independently.

From the above reports, it was understood that people are suffering from mood disorders especially depression that is also especially for the elderly population. A study showed that about 80 percent of older adults with depression recovered with this kind of combined treatment (antidepressant medication and psychotherapy). There is a need to identify other new therapies that helpful to reduce the depression. Laughter, it is a new and popular form of therapy, Gupta said "we need to

laugh because it's our weapon we have against everything in the world". Psychotherapists have discovered laughter as an aid in the treatment of several clinical disorders, most notable depression. Moreover that research on laughter therapy and its effectiveness in reducing the depression is very minimal. So the investigator felt the need to conduct research on this topic.

STATEMENT OF THE PROBLEM

A study to assess the effectiveness of laughter therapy in the reduction of depression among senior citizens residing at selected old age home in Virudhunagar.

OBJECTIVES

1. To assess the pre test level of depression in experimental and control groups among senior citizens residing at selected old age home in Virudhunagar.
2. To assess the post test level of depression in experimental and control group among senior citizens residing at selected old age home in Virudhunagar.
3. To compare the pre and post test level of depression in the experimental group among senior citizens residing at selected old age home in Virudhunagar.
4. To find out the effectiveness of laughter therapy in experimental and control group in the reduction of depression among senior citizens residing at selected old age home in Virudhunagar.
5. To find out the association between post test level of depression in experimental and control groups with selected demographic variables such as age, gender, religion, education, previous occupation, marital status, family support, source of income, period of stay and mode of entering into an old age home.

HYPOTHESIS

- The mean post test depression score of the senior citizens will be significantly lesser than the mean pre- test depression score of the senior citizens residing at selected old age home among experimental group.
- There will be a significant association between the post test depression level of the senior citizens and their selected demographic variables such as age , gender, religion, education, previous occupation, marital status, family support, source of income, period of stay and mode of entering in to an old age home among experimental and control group.

OPERATIONAL DEFINITION

i) Effectiveness:

It is the outcome of the laughter therapy which will be validated by a decrease in the severity of depression.

ii) Laughter therapy:

It refers to a great sense of humor which includes a set of pre-structured laughter exercises (30 minutes duration.)

Steps in laughter exercises:

- Deep breathing exercises (1minute)
- Shoulder, neck and stretching exercises (50seconds)
- Clapping in a rhythm 1-2,1-2-3 (20-30seconds) after every laughter exercises.
- Greeting laughter (2minutes)
- One meter laughter (2minutes)
- Argument laughter (3minutes)

- ➢ Cell phone laughter (3minutes)
- ➢ Lion's laughter (3minutes)
- ➢ Milkshake laughter (3minutes)
- ➢ Swinging laughter (2minutes)
- ➢ Hearty laughter (2minutes)

iii) Depression:

It refers to the state of sad mood in which the old aged person feels of hopelessness, worthlessness, decreased interest, disinterest in relationship with others, which will be measured by yesavage Geriatric depression scale.

iv) Senior citizens:

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

ASSUMPTIONS

- ⇒ Most of the senior citizens (both males & females) are suffering from depression .
- ⇒ Laughter is a universal language and it can be applied to any age groups.
- ⇒ Laughter is used to communicate positive feelings to oneself and others by diminishing the stress in an acceptable way. It doesn't have any negative effects.
- ⇒ The senior citizens who are living in old age home have more depression than in community.

LIMITATIONS:

- The study is limited to those who are residing at selected old age home in Virudhunagar.
- The age limit is above 60 years.
- The sample size is 60.
- The study period is limited to 6 weeks.
- The study is only limited to Hindus.

PROJECTED OUTCOME

- ❖ The study will help the investigator to find out the prevalence of depression among senior citizens residing at selected old age home.
- ❖ The findings of this study will help the investigator to find out the effectiveness of laughter therapy in the reduction of depression among senior citizens at selected old age home.
- ❖ This study will provide a basis to bring laughter therapy as a routine therapy to reduce depression.

CONCEPTUAL FRAMEWORK

The study was based upon modified wiedenbach's helping art of clinical nursing theory (1969). The central purpose in this theory refers to what the nurse wants to accomplish. A nurse develops a prescription based on the central purpose and implements according to the reality of the situation.

The main concepts of this theory are,

I. Identifying a need for help,

II. Ministering needed help,

III. Validating that need for help was met.

Identifying a need for help:

It involves viewing the patient as an individual with unique experiences. Determining a patient's need for help is based on the existence of a need whether the patient realizes the need, and what prevents the patient from meeting the need. In this study it refers to assessment of pretest level of depression among the senior citizens before administering laughter therapy. They were coming under normal, mild and severe depression score level .For my study I had selected only mild depression. Normal and severe were excluded from the study.

Identification of the senior citizens with mild depression and with their demographic variables such as age, gender, religion, education, previous occupation, marital status, family support, source of income, period of stay and mode of entering into an old age home.

Ministering the needed help:

It means the provision of needed help. This requires an identified need and a patient who wants help. In this study it refers to ministering laughter therapy to the senior citizens with mild depression. This will be administrated in group sessions by following 4 steps:-

Step 1: Deep breathing exercises – 1 minute (3 times).

Step 2: Shoulder, neck and stretching exercises – 50 seconds (5 times each)

Step 3: Clapping in a rhythm- 1-2, 1-2-3 along with chanting (Ho Ho-Ha-Ha-Ha 20-30 seconds (after every laughter exercises).

Step 4: Laughter exercises (20-30 minute group sessions)

- Greeting laughter (2minutes)
- One meter laughter (2minutes)
- Argument laughter (3minutes)
- Cell phone laughter (3minutes)
- Lion's laughter (3minutes)
- Milkshake laughter (3minutes)
- Swinging laughter (2minutes)
- Hearty laughter (2minutes)

Validating that a need for help was met:

It means the collection of evidence that shows the patient's need have been met as a direct result of the nurses action. In this study it refers to assessment of post test level of depression after laughter therapy. There will be a reduction in the level of depression in the experimental group from mild to normal score level and there will not be a reduction in the level of depression in a control group from mild to normal score level.

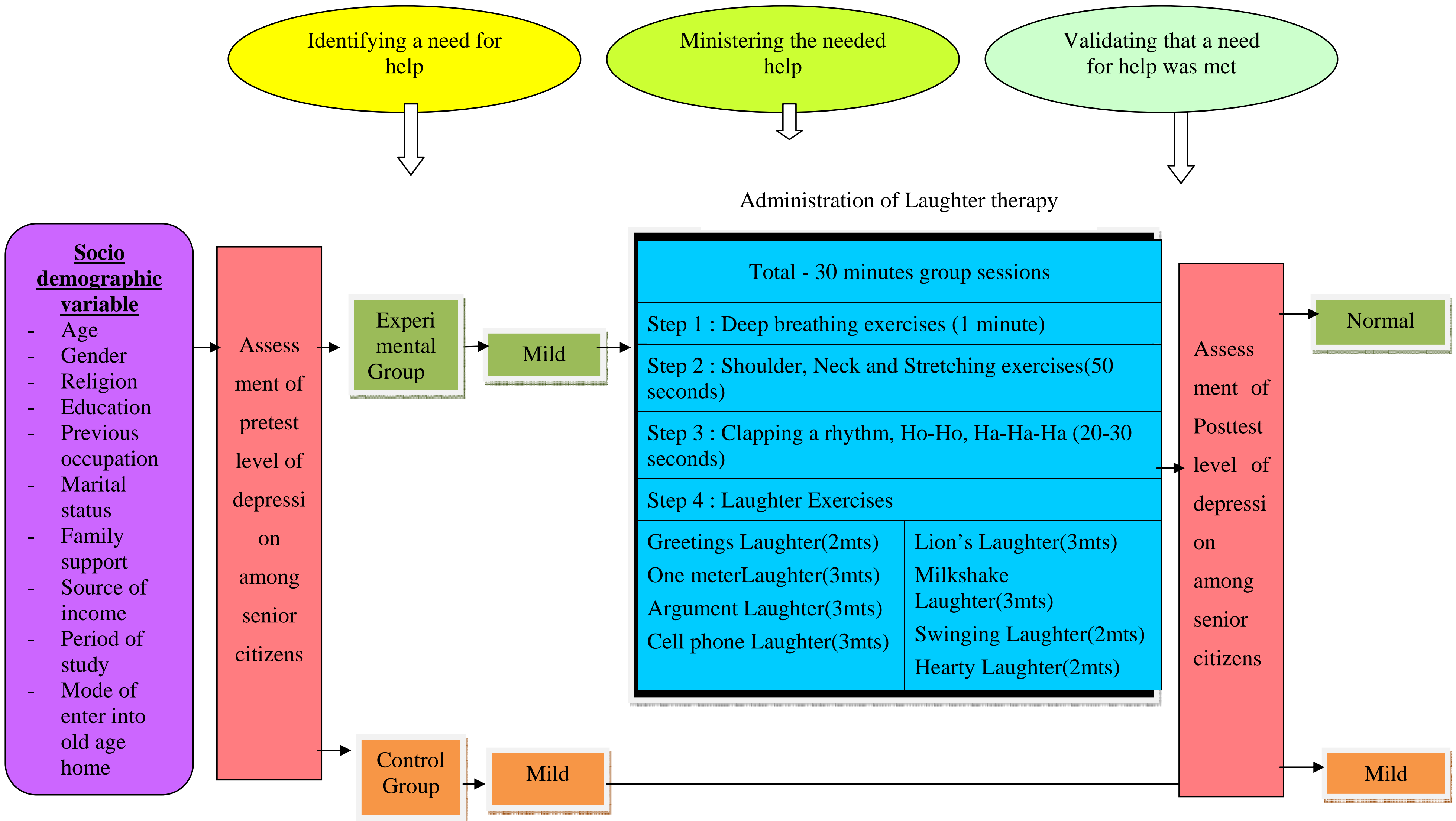


Fig 1: MODIFIED CONCEPTUAL FRAME WORK BASED, WIEDENBACH'S HELPING ART OF CLINICAL NURSING THEORY (1969)

CHAPTER II
REVIEW OF LITERATURE

The review of literature was done from published articles, textbooks, reports and Medline search literature review is organized and presented under the following headings:

1. Literature related to laughter.
2. Literature related to depression.
3. Literature related to laughter in reducing depression in older adults.

1. Literature related to laughter:

M. Kataria, et al (2010) conducted a study about the laughter effect on mental and physical aspects of healthy individuals was shown to be beneficial. In this study was to compare the effectiveness of Kataria's Laughter therapy and group exercise therapy in decreasing depression and increasing life satisfaction in older adult women of a cultural community of Tehran, Iran. Seventy depressed old women who were members of a cultural community of Tehran were chosen by Geriatric depression scale (score>10). After completion of Life Satisfaction Scale pre-test and demographic questionnaire, subjects were randomized into three groups of laughter therapy, exercise therapy, and control. Subsequently, depression post-test and life satisfaction post-test were made for all three groups. Sixty subjects completed the study. The analysis revealed a significant difference in decrease in depression scores of both Laughter Therapy and exercise therapy group in comparison to control group ($p<0.001$ and $p<0.01$, respectively). There was no significant difference between Laughter therapy and exercise therapy groups. The increase in life satisfaction of the Laughter Yoga group

showed a significant difference in comparison with control group ($p<0.001$). No significant difference was found between exercise therapy and either control or Laughter therapy group. Findings showed that Laughter therapy is at least as effective as group exercise program in improvement of depression and life satisfaction of elderly depressed women

Lee Berk, M.D., Ph.D., et al(2010) explained a study about laughter can fend off many of the physiological effects of stress, including those caused by the hormones Cortisol and Epinephrine. These hormones trigger a cascade of physiological responses that include increased blood pressure, heart rate, blood sugar and energy available to the brain and muscles. While these responses work well in so called "fight or flight" situations, prolonged and chronic stress can suppress the immune system, increasing people's risks of viral infections and even tumors. Laughter can ameliorate the undesirable effects of stress hormones, mainly by enhancing the secretion of growth hormones. Growth hormones promote the same immune responses that Cortisol and Epinephrine tend to inhibit.

Science Journal, Berk said, (2010) "The biological effects of a single one-hour session of viewing a humorous video can last from 12 to 24 hours, while other studies of daily 30-minute exposure to such humor and laughter videos produces profound and long-lasting changes in these measures."

A BBC article about laughter and hospital treatment, researchers found that the healing power of humor can reduce pain and stimulate immune function in children with cancer, AIDS or diabetes and in children receiving organ transplants and bone marrow treatments

David Felten, MD, Ph.D., Berk; et al (2010) has shown that the expectation of a funny video can work wonders for the mood and therefore has the potential to benefit the immune system as well. Berk and Felten evaluated the mood states of 10 men using the Profile of Mood States (POMS), to measure changes in tension, depression, anger, vigor and fatigue. The POMS was administered two days prior, 15 minutes prior, and immediately following the viewing of a humorous video selected by the subject. Their results showed that two days before the anticipated viewing, depression levels fell by 51 percent, anger fell 19 percent, confusion by 36 percent, and fatigue diminished by 15 percent.

Margaret Stuber (2010), who also added to Berk's research the US research said in a recent interview with *BBC News*: "We think laughter could be used to help children who are undergoing painful procedures or who suffer from pain-expectation anxiety." The researchers concluded that the anticipation as much as the actual event itself can initiate positive mood alterations. Berk calls this expectation a synonym for the "biology of hope," according to *Science Journal*. Laughter also seems to be good for the heart. A recent study of 48 heart patients showed that patient whose therapy included 30 minutes of laughter a day had fewer abnormal heart rates and required less heart medication that other patients. Due to its new found healing power, laughter treatment will also extend to the psychiatric branch of medicine as well.

Scholl JC, et al (2003) investigator a study of “The use of humor in promoting positive provider-patient interactions in a hospital rehabilitation unit”. These study findings suggest that humor in these activity sessions was mainly a by-product of more predominant effects, such as patients' positive attitude and happiness and also humor appeared secondary to the primary outcome of promoting the patient’s happiness and well being.

Bennet HJ, et al (2003) explained a study about “Humor in medicine”. The study results showed that there is support in the literature for the role of humor and laughter in other areas, including patient-physician communication, psychological aspects of patient care, medical education, and as a means of reducing stress in medical professionals.

Olasson H, et al (2002) assessed a qualitative study to assess humor is one of the innate abilities that an individual develops whilst growing up and which is affected by his/her experiences in life. The data were based on 20 interviews, nine of which were made by women and 11 with men who had no formal connection to health services or nursing. It was observed that humor has effects and functions on individuals. Empathy is a prerequisite for the use of humor in the context of health services and nursing.

Simon JM, et al (2002) explained a study about Humor and the older adult: The sample of this pilot study consisted of 24 volunteers from a senior citizen community center who are ambulatory adults over 61 years old. These findings suggest that humor may be one phenomenon which influences the older adult's perception of perceived health, life satisfaction and morale and may assist in successful ageing.

Beck CT, et al (2002) proved a study about Humor in nursing practice. Among twenty-one registered nurses enrolled in a graduate nursing program. Results showed that humor was found to (a) help nurses deal effectively with difficult situations and difficult patients, (b) create a sense of cohesiveness between nurses and their patients and also among the nurses themselves, (c) be an effective therapeutic communication technique that helped to decrease patients' anxiety, depression, and

embarrassment, (d) be planned and routine or be unexpected and spontaneous, and (e) create lasting effects beyond the immediate moment for both nurses and patients.

James DH, et al (2002) found a study about Humor: a holistic nursing intervention and found that Humor can be an important tool in a holistic approach to coping with illness.

2. Literature related to depression:

Ankur Barua and Nilamadhab Kar (2010) conducted a cross-sectional study over a period of eight months in the three taluks of Udupi, Kundapura, and Karkala; belonging to the Udupi district of South India.They selected 627 people in the age group of 60 years and above for the study. Simple random sampling, without replacement method, using the probability proportionate to size (PPS) technique was used. The prevalence of depression in elderly population was determined to be 21.7%.

Vishnu Gopal, Veena G, Sini Vijayan (2009) done a descriptive study among the elderly population aged above 60years living in old age homes and in the community. 50 cases from each group were interviewed using a structured questionnaire using GDS (Geriatric Depression Scale) which is widely accepted for assessing the depression among the elderly. Data was analyzed statistically using a t-test for significance. They analyzed the depression status among elderly, living in old age homes and in the community. They looked into the age wise, sex wise and occupation wise distribution of depression as a whole .Depression was found to be more in inmates of old age homes. Among the 50cases in old age homes, 4 of them were having mild depression, 28 were having

moderate depression and 18 were having severe depression. Among the 50cases studied from the community 34 were having mild depression, 14 were having moderate depression and 2 were having severe depression. In sex wise analysis depression was found to be more among females. Occupation wise and age wise analysis proved to be insignificant.

A. Etamadi and A. Khamadi (2009) conducted a study to know problems especially for those living in elderly homes and extending counselling services to the vast and new field of geriatrics in Iran. In this study 120 old people who lived at governmental and private elderly homes in Tehran, Iran were randomly enrolled and studied using the Beck Depression Inventory. The results showed that signs of depression and somatization disorders were the most common ones among the elderly in elderly homes. In all studied clinical scales, the rate of psychological symptoms was more among women than men. The most important worries of the elderly were economic status, social relations, dissatisfaction with old age, lack of favorite activities and their family members` treatment. Since living in an elderly home means staying away from family support and that it is considered reproachable, attending to psychological and emotional needs of the elderly home residents is essential.

Archana Singh and Nishi Misra (2009), conducted a study to investigate the relationships among depression, loneliness and sociability in elderly people. The study was carried out on 55 elderly people (both men and women). The tools used were Beck Depression Inventory and Sociability Scale by Eysenck. The sample comprised of 55 elderly persons (35 men and 20 women) in the age group of 60-80 years. The mean age of the sample population was 67 years. The subjects in the

sample were selected from the older adults of a Delhi-based region residing in the housing societies. These elderly persons were contacted personally, and the questionnaires were administered to them. There is an increase in the level of depression with an increase in loneliness among elderly men and women.

Science daily (2008), explained a study about elderly in a long-term care setting are more likely to be prescribed antidepressants and to self-report depression compared to those in a home-health care setting, according to a study by social work students at Indiana State University. The study of 272 elders, with an average age of 81, examined how often patients reported feeling depressed and were prescribed antidepressants at both a long-term care facility and through a home-care agency in west-central Indiana. At the long-term care facility, 30 percent of the elders in the study reported feeling depressed, compared with 11 percent who received care in their homes through medical and social services. The long-term care facility also prescribed antidepressants to more than half of the elders in the study (62 percent) at some point after they were admitted, compared to only a quarter of the home-cared elders.

Mohd Aznan Md Aris, Samsul Draman (2007) proved a cross-sectional on elderly in two selected nursing homes in Kuantan, Pahang were interviewed. The respondents were interviewed using a structured questionnaire which included the biodata, social background, and medical illness, presence of cognition, depression and ability to perform basic activities of daily living (ADL). Results are available for 36 respondents out of 41 residents, giving a response rate of 87.8%. Chinese (77.8%), male (63.9%), single or divorced (50%), and low income (69.4%) was consisted the majority. Most respondents (86.1%) suffered from chronic

illness, 61.1% were functionally dependent (according to Barthel index), 33.3% have cognitive impairment (according ECAQ) and 22.2% have depression (according to GDS-14). The most common functional dependence was mobility on a level surface (47.2%), followed by climbing stairs (38.9%). This study had identified chronic illness, cognitive impairment, depression, and functional decline as major health problems of the elderly in nursing homes that require greater attention and intervention.

Saroj, Shakuntla Punia, et al (2007) proved a study that the psycho-social status of institutionalized senior citizen. The study was conducted in purposefully selected state Haryana. A sample of 60 respondents (30 males and 30 females) from ten institutes was selected randomly. Regarding psychosocial economic status of the respondent, results indicated that maximum percentage of the respondent was in the moderate to severe level of depression had a natural attitude towards institution, moderate social, good health status and poor in economic status. Further results reveled that maximum percentage of the respondents were feeling insecure in their own house, neglected by family members and wanted to meet their basic needs. Results indicated that overall institutional facilities had positive significant correlation with attitude and health status. Age was negatively correlated with leisure time activities and health status. Overall psychosocial-economic status of the respondents had positive significant correlation with attitude, leisure time schedule, social and health status of the senior citizen.

Li LW, et al (2007) conducted a study about Mental health status of home care elders in Michigan. The results show that 40.5% of the individuals in the sample have recognized mental disorders, 39.6% use

psychotropic medications, 24.5% have probable depression, and 1.4% have self-injurious thoughts or attempts and they are more prone to psychological distress.

Aguilar-Navarro S, et al (2007) explained a study about Depression: clinical features and consequences among the elderly in the united states. The results showed that the prevalence of depression may vary, its range is between 10 to 27%. Fatigue, insomnia, and anorexia, in a cyclical fashion, are the milestone symptoms of depression among the elderly and describes the use of the geriatric depression scale as the most popular screening instrument for this patient population.

Lee MJ, et al (2006) proved a study about Depression outcomes and quality of post discharge care of elders hospitalized for major depression. The sample consisted of 148 elders (ages 60-95years) who were hospitalized for major depression and discharged to their homes. The findings provided partial support for the association between quality of care and depression outcomes, in that quality of psychosocial care was associated with better outcomes. Also, the findings suggest that the relationship between quality of psychosocial care and depression outcomes may be evident after six months of post acute care.

Tsai YF, et al (2006) assessed a study about Self-care management and risk factors for depressive symptoms among elderly nursing home residents in Taiwan. Stratified random sampling was used to recruit participants (n = 220). In these elderly nursing home residents, the prevalence of depressive tendency was 55.0%. The results showed that elders tended to engage in activities and interact with others to manage their depressive symptoms, health care providers in nursing homes should consider improving access to activities and interpersonal

contacts for elderly residents. The risk factors for depressive symptoms may be addressed by providing a pleasant and comfortable living environment, discouraging poor perceived health status, and promoting the health of elderly residents of nursing homes in Taiwan.

Proctor E, et al (2006) conducted a study about Quality of care for depressed elders in post-acute care: variations in needs met through services. The results showed that urban elders received better psychiatric care than did rural elders. Elders in worse physical health received better medical and psychosocial care, but poorer psychiatric care. Elders with psychoses and living with others had better care for functional dependencies.

Rodriguez H, et al (2002) found a study about Depression and social support in the elderly population: a study of rural South African elders. The study indicated that there was no significant difference in the level of depression using two different scales to determine depression. Age did not influence the amount of social support the elderly received from family, friends or the community.

McCurren C, et al (2002) conducted a study about Depression among nursing home elders: Among 139 samples of Nursing home residents were assessed for depression using the Geriatric Depression Scale (GDS); In that results showed that 94 (68%) were found to have depressive symptomatology. Among those receiving the intervention, depressive symptomatology was significantly reduced.

C. J. Phillips and A. S. Henderson (2001) explained a study to estimate the prevalence of depressive disorders in Australian nursing home residents using international diagnostic criteria, and second, to explore environmental determinants of such disorders. Residents of 24 nursing homes were surveyed using the Canberra Interview for the Elderly (CIE) and a range of environmental measures was also taken. Of 323 residents who were screened for cognitive impairment, 165 (51%) scored 18 or above on the Mini-Mental State Examination (Folstein *et al.* 1975), and were interviewed with the CIE. According to DSM-III-R criteria and the CIE, the prevalence of major depressive episode was 9·7%. Using ICD-10 criteria, 6·1% of residents suffered from a severe depressive episode, 6·7% from a moderate depressive episode and 6·7% from a mild depressive episode. Some measures of the social environment were significantly related to depressive symptoms.

3. Literature related to laughter in the reduction of depression in older adults:

Chi Yong (2011) explained a study about effects of laughter therapy on depression, cognition and sleep among the community-dwelling elderly to investigate the effects of laughter therapy on depression, cognitive function, quality of life, and sleep of the elderly in a community. Between July and September 2007, the total study sample consisted of 109 subjects aged over 65 divided into two groups; 48 subjects in the laughter therapy group and 61 subjects in the control group. The subjects in the laughter therapy group underwent laughter therapy four times over 1 month. We compared Geriatric Depression Scale (GDS), Mini-Mental State Examination (MMSE), Short-Form Health Survey-36 (SF-36), Insomnia Severity Index (ISI) and Pittsburgh Sleep Quality Index (PSQI) between the two groups before and after

laughter therapy. Laughter therapy is considered to be useful, cost-effective and easily accessible intervention that has positive effects on depression, insomnia, and sleep quality in the elderly.

Mimi. m. Tse, et al (2010) examined the effectiveness of a laughter therapy program in reducing depression among older persons with chronic pain. It was a quasi experimental pretest-posttest controlled design. Older persons in a nursing home were invited to join an 8-week laughter therapy program (experimental group), while those in another nursing home were treated as a control group and were not offered the program. There were 36 older people in the experimental group and 34 in the control group. Upon completion of the laughter therapy program, there were significant decreases in depression for the experimental group, but not for the control group. The use of laughter therapy appears to be an effective non pharmacological intervention. Nurses and other healthcare professionals could incorporate laughter in caring for their patients.

Hirsch. RD (2010) conducted a study about the positive effects of humor on older patients with depressive symptoms have been repeatedly reported. Empirical evidence, however, is rare. They investigated the effects of a standardized humor therapy group in a clinical context especially for older depressed patients. An experimental group with treatment (52 patients participating in the humor group) was compared to a control group with no specific treatment (38 patients); all 90 participants had clinical depressive symptoms according to ICD-10 classification. Questionnaires (among them GDS, SF-12, State-Trait Cheerfulness Inventory, Satisfaction with Life Scale) were administered at two time points (pre- and post-treatment). From pre- to post-measurement, significant improvements could be shown only in the experimental group for resilience and satisfaction with life ($p<0.005$). Analyses of the subgroups with at least medium to severe depression showed further significant effects for cheerfulness, seriousness, bad

mood, and satisfaction with life ($p<0.005$). These severely affected patients seemed to profit best from humor therapy results indicate the efficacy of this specific therapeutic intervention for older depressed patients.

Neuhoff CC, et al (2002) conducted a study about the effects of laughing, smiling, and howling on mood. The results showed that while howling did not substantially improve mood, both smiling and laughing did. Moreover, laughter seemed to boost positive affect more than just smiling by 22 adults.

Wooten P, et al (2002) investigated a study about Humor: an antidote for stress. The results showed that humor and laughter can be an effective self-care tools to cope with stress. Laughter provides a physical release for accumulated tension.

Richman J, et al (2002) proved a study about The life saving function of humor with the depressed and suicidal elderly. The results showed that therapeutic humor is associated with five principles: (1) a positive doctor-patient relationship includes the freedom to be humorous; (2) the humor is life affirming; (3) the humor increases social cohesion; (4) the humor is interactive; (5) the humor reduces stress. The main effects are symptom relief and increased cohesion.

Shapiro DH Jr, et al (2002) assessed a study about Aging and a sense of control. Three groups representing different phases of the development lifecycle—12 senior citizens, 67 young adults, and 14 healthy middle-aged normal adults—were assessed. The results showed that senior citizens had a healthy over-all sense of control compared to those of the other two groups. They also were significantly more likely to endorse acceptance as a way of addressing areas of concern and to

complement self as a source of control with a sense of control coming from others (including God, belief in a higher power).

Chapman AH, et al (2001) conducted a study about The use of humor in psychotherapy. The results showed that Humor can be a useful treatment technique in the hands of some psychotherapists. It may help the patient to see painful life events and situations from less threatening perspectives, and can take the anxiety and guilt out of many difficult circumstances and incidents.

Vergeer G, et al (2001) explained a study about Therapeutic use of humor in occupational therapy. Interviews with five occupational therapists who use humor therapy in their practice were conducted and analyzed This study revealed that the use of therapeutic humor in occupational therapy is a multifaceted phenomenon, much richer than had been previously presented in the literature.

Carroll JL, et al (2001) investigator a study about Correlation between humorous coping style and health. A significant correlation of -0.34 was found between scores on the Situational Humor Response Questionnaire and a measure of perceived physical health for 51 college students.

CHAPTER III

RESEARCH METHODOLOGY

The methodology of research indicates the general pattern of organizing the procedure for gathering valid and reliable data for investigation. This chapter provides a brief description of the method adopted by the investigator in the study. It includes the research approach, research design, setting of the study, population, sample, sample size, sampling technique, description of the tool, pilot study, data collection procedure and plan for data analysis.

The present study aims to assess the effectiveness of laughter therapy in the reduction of depression among senior citizens residing at selected old age home in Virudhunagar.

RESEARCH APPROACH:

The quantitative research approach was adopted for this study.

RESEARCH DESIGN:

Quasi experimental design was adopted for this study .

SETTING OF THE STUDY

The study was conducted at selected old age home in Virudhunagar, which are approximately 100 kilometers far away from Manamadurai. To conduct this study, sixty senior citizens were selected from the selected population for laughter. The selection was carried out on the willingness of the senior citizens . The study was conducted in one old age home. The name of the old age home is:

Dhanasami – Parimaladevi Social welfare trust in Virudhunagar.

It is a non profit, non –governmental voluntary organization. The total number of senior citizens in this institution in 110. Among them 60 samples those who fulfilled the inclusion criteria were selected for this study.

POPULATION

The target population selected for the present study was senior citizens with mild depression.

SAMPLE SIZE

The sample consists of 60 senior citizens, those who fulfilled the inclusion criteria were selected for the study. (30 samples were in the experimental group and another 30 in the control group allotted by lottery method).

SAMPLING TECHNIQUE

The sample was selected by purposive sampling technique.

CRITERIA FOR SAMPLE SELECTION

Inclusion criteria:

- ❖ Senior citizens residing at selected old age home.
- ❖ Those who have a depression score of 10 to 19. (Mild depression)
- ❖ Subjects were speaking and understanding Tamil/English.
- ❖ Both male and female clients.

Exclusion criteria:

- ❖ Subjects who are not willing to participate.
- ❖ Subjects who are physically ill.

DESCRIPTION OF THE TOOL

The tool consists of 2 parts

Part I: Demographic data:

- It consists of demographic variables such as age, gender, religion, education, previous occupation, marital status, family support, source of income, period of stay and mode of entering into an old age home.

Part II: Standardized Scale:

J.A. yesavage Geriatric Depression Scale was used to assess the level of depression among senior citizens. The tool was initially created by yesavage et al., has been tested and used extensively by the older population. The participants responded to the questionnaire of a total of 30 items by answering ‘Yes’ or ‘No’ type.

SCORING PROCEDURE

The items are scored in a “Yes” or “no” format. One point was given to every ‘yes’ responses for the first 20 items and one point was given to the every ‘no’ responses for the other 10 items. The maximum score was 30 and the minimum score was 0. The score is interpreted as follows:

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

Based on, pre and post test experimental and control group score of sample assessment, the maximum score was 19 and minimum score was 3. The score is divided into 6 types.

Type I:3-5

Type II:6-8

Type III:9-11

Type IV:12-14

Type V:15-17

Type VI:18-20

VALIDITY AND RELIABILITY:

The validity of the tool was established with the guide and experts. As far as adequacy of content, all experts approved the tool constructed. The tool was found adequate and minor suggestions given by experts were incorporated.

Reliability of the tool was measured by the test retest method.

PILOT STUDY:

A pilot study was conducted at selected old age home in Virudhunagar with 6 samples that fulfills the inclusion criteria. The sample was selected by purposive sampling technique. A pilot study was conducted by using a yesavage geriatric depression scale. The results were analyzed based on the scores obtained from the sample and observed by the investigator. The pilot study confirmed the feasibility and practicability. The sample included in the pilot study were not included in the main study.

PROCEDURE FOR DATA COLLECTION:

Pre-test (I week)

First formal permission was obtained from the principal, HOD of psychiatric Nursing Department and research committee members for the Matha college of Nursing to conduct this study.

Prior to data collection permission was obtained from manager and director of old age home. On the very first day, the investigator met the old age people 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 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. For the first five days, the investigator visited the Dhanaswamy Parimaladevi social welfare Trust (Old age home) in Viruhunagar, in the Morning 9.00am to 4.00pm in order to assess the level of depression by using a Geriatric Depression scale (GDS). Every day 20 samples were interviewed and it takes 15 minutes for each subject interview. So the primary data were collected from 100 samples. Out of 100 samples, 60 (Mild depression) were selected in purposive sampling technique. Among the 60 by Lottery Method, 30 were in experimental and 30 were in the control group. Normal and severe were excluded from the study.

Laughter therapy (II – V week- four weeks)

During these weeks from Monday to Saturday among experimental group, the sample was divided into two groups of 15 each. Daily the researcher visited the old age home from 7am to8. 00 am and 4.00 pm to 5.00pm. Each group receives laughter therapy twice daily (morning and evening). Laughter exercise was given to each group for 30minutes. So the procedure took one hour/day for each group. So as totaling 48 hours laughter therapy was administered to senior citizens.

Groups	Timings	Laughter exercises	Days
I Group (15 members)	7.00a. m- 7.30a. m. 4.00p. m- 4.30pm.	-Greeting laughter (2minutes) -One meter laughter (2minutes) -Argument laughter (3minutes) -Cell phone laughter (3minutes) -Lion's laughter (2minutes) -Milkshake laughter (3minutes) -Swinging laughter (2minutes) -Hearty laughter (2minutes)	**Monday** **Tuesday** **Wednesday** **Thursday** **Friday** **Saturday**
II Group (15 members)	7.30a. m- 8.00a. m. 4.30p.m- 5.00p.m		

Post-test (VI week)

During the last week, post test assessment of depression level was carried out among the senior citizens to the pretest. Post test was conducted in the first 5 days of VI week, in Dhanaswamy Parimaladevi Social Welfare Trust (Old age home) .During these 6 week period, sample were very co-operative. The manager and warden of the old age homes were also helped a lot in conducting 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 was arranged as follows.

- Frequency and percentage distribution were computed for describing the sample demographic variables.
- The paired ' t ' test was computed to compare the pre and post test mean score level of depression of experimental group sample.
- Independent 't' test was computed to find out an efficacy of laughter therapy.
- The 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 constant was obtained from the sample after explaining the importance of laughter therapy.
- All information was kept as confidential and used only in the present study in order to maintain the anonymity of the sample.
- Permission was obtained from the management of selected old age home to display the images taken the data collection procedure.

CHAPTER - IV

ANALYYSIS AND INTERPRETATION OF DATA

Analysis is a process of organizing and synthesizing data is such a way that research question can be answered and hypothesis tested (Polit & Hungler 1999).

This chapter deals with the description of the samples analysis and interpretation of the data collected and achievement of the objectives of the study. The data collected is tabulated and presented below.

The Data collected were organized under the following sections.

SECTION I: Distribution of the sample based on selected demographic variables of experimental and control group .

SECTION II: Distribution of the sample based on the level of depression in pre test Score of experimental and control group.

SECTION III: Distribution of the sample based on the level of depression in Post test score of experimental and control group.

SECTION IV: Comparison of the sample in the pre test mean score and post test mean score level of depression among experimental group.

SECTION V: Effectiveness of laughter therapy- differences between post test mean score level of depression among experimental and control group.

SECTION VI: Association of sample between the post test level of depression and the demographic variables of experimental and control group.

SECTION I:

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

TABLE -I

SOCIO –DEMOGRAPHIC DATA OF THE STUDY SAMPLE

Table 1: Distribution of study sample based on selected demographic variables of experimental and control group.

N = 60

S. No.	Demographic variable		Experimental Group		Control group	
			Frequency	%	Frequency	%
1	Age in years	a) 60-69 years	11	36.66	6	20
		a) 70-79 years	17	56.66	21	70
		a) 80-89 years	2	6.66	3	10
2	Sex	a) Male	10	33.33	11	36.66
		b) Female	20	66.66	19	63.33
3	Religion	a) Hindu	30	100	30	100
		b) Christian	-	-	-	-
		c) Muslim	-	-	-	-
		d) Others	-	-	-	-
4	Educational Status	a) illiterate	15	50%	16	53.33
		b) upto primary	12	40%	13	43.33
		c) upto higher secondary	2	6.66	1	3.33
		d) Higher education	1	3.33	-	-
5	Previous occupation	a) Housewife/unemployed	19	63.33	20	66.66
		b) Labourer	8	26.66	9	30
		c) Private employee	3	10	-	-
		d) Govt employee	-	-	1	3.33

S. No	Demographic Variables		Experimental Group		Control Group	
			Frequency	%	Frequency	%
6	Marital Status	a) Unmarried	2	6.66	-	-
		b) Married	24	80	26	86.66
		c) Widower/widow	4	13.33	4	13.33
		d) Separated/Divorced	-	-	-	-
7	Family support	a) Adequate	27	90	28	93.33
		b) Inadequate	3	10	2	6.7
8	Source of income	a) Pension	-	-	1	3.33
		b) Family members	28	93.33	28	93.33
		c) Others	2	6.66	1	3.33
9	Period of stay	a) <5 years	-	-	-	-
		b) 6-10 years	18	60	5	16.66
		c) >11 years	12	40	25	83.33
10	Mode of enter into old age home	a) Self interest	21	70	29	96.66
		b) Children's pressure	8	26.66	1	3.33
		c) Others	1	3.33	-	-

Table 1, In experimental group 6.66% of the sample belonged to the age group of 70-79 years whereas only 36.66% of the sample belonged to the age group of 60-69 years. Female 66.66%, dominated the Male 33.33% and all of them 100% belongs to the Hindu community. The Number of illiterate higher 50%, than the literate. The majority of them 63.33% were House wife or unemployed. 80% were married and 90% of the sample are having adequate family support. 93.33% of the sample were getting income from family members. The majority of them 60%, was staying in an old age home for 6-10 years and 70% as their self interested entered into an old age home.

Table 1, In the control group predicts the majority 70% of the samples belonged to the age group of 70-79 years whereas only 20% of the samples belonged to the age group of 60-69 years. Female 63.33%, dominated the male 36.66% and all of them 100%, belongs to the Hindu community. The number of illiterate higher 53.33% than the literate. The majority of them 66.66% were Housewife or unemployed. 86.66% were Married . 93.33% of the sample were getting good family support and 93.33% were getting income from family members. The majority of them 83.33 % were staying 6 -10 years in an old age home and 96.66% as their self interested entered into an old age home.

Fig- 2 Distribution of sample according to the Age in years

N = 60

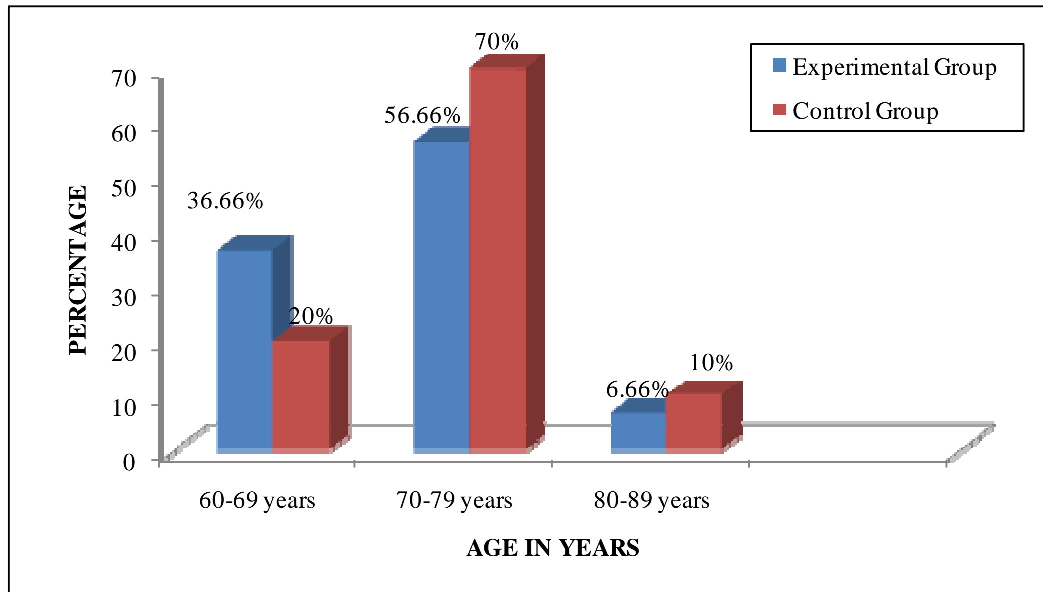


Fig-3 Distribution of sample according to the Gender

N = 60

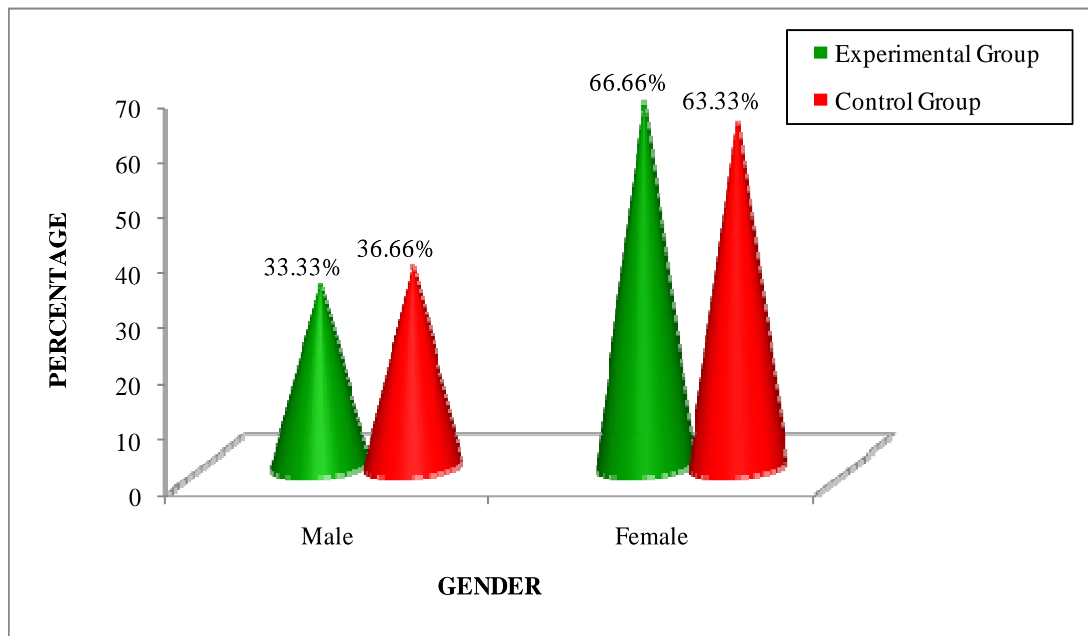


Fig-4. Distribution of sample according to the Educational Status

N = 60

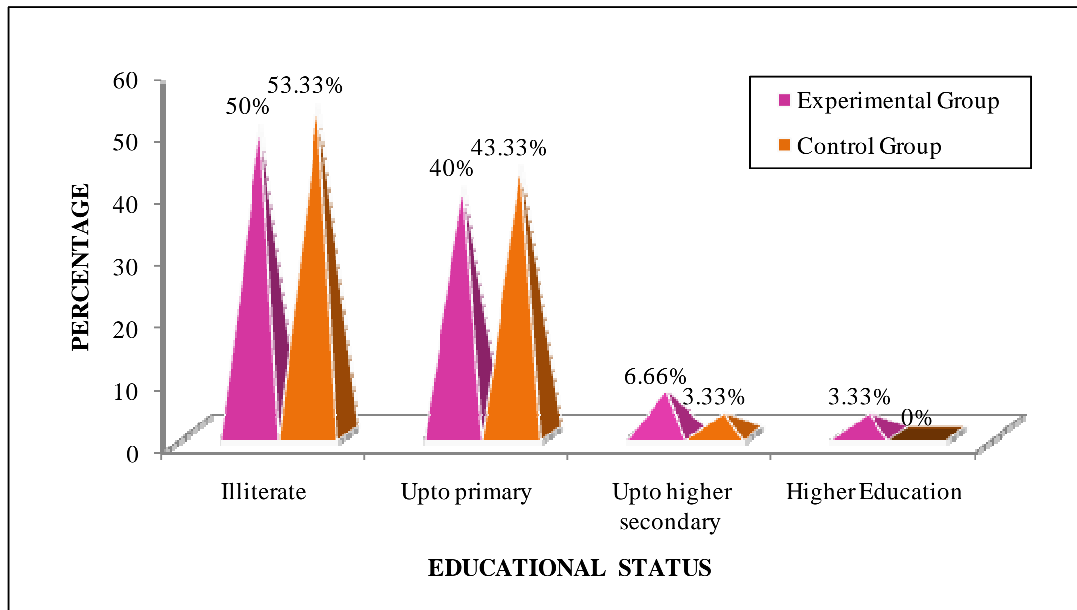


Fig-5 Distribution of sample according to the Previous Occupation

N = 60

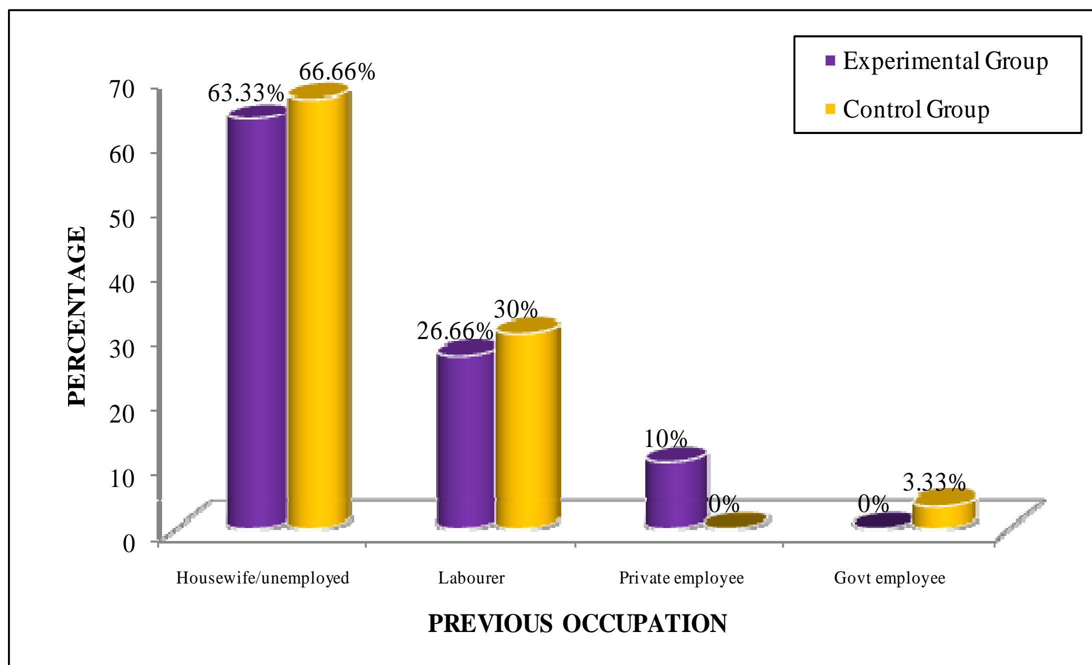


Fig-6. Distribution of sample according to the Marital Status

N = 60

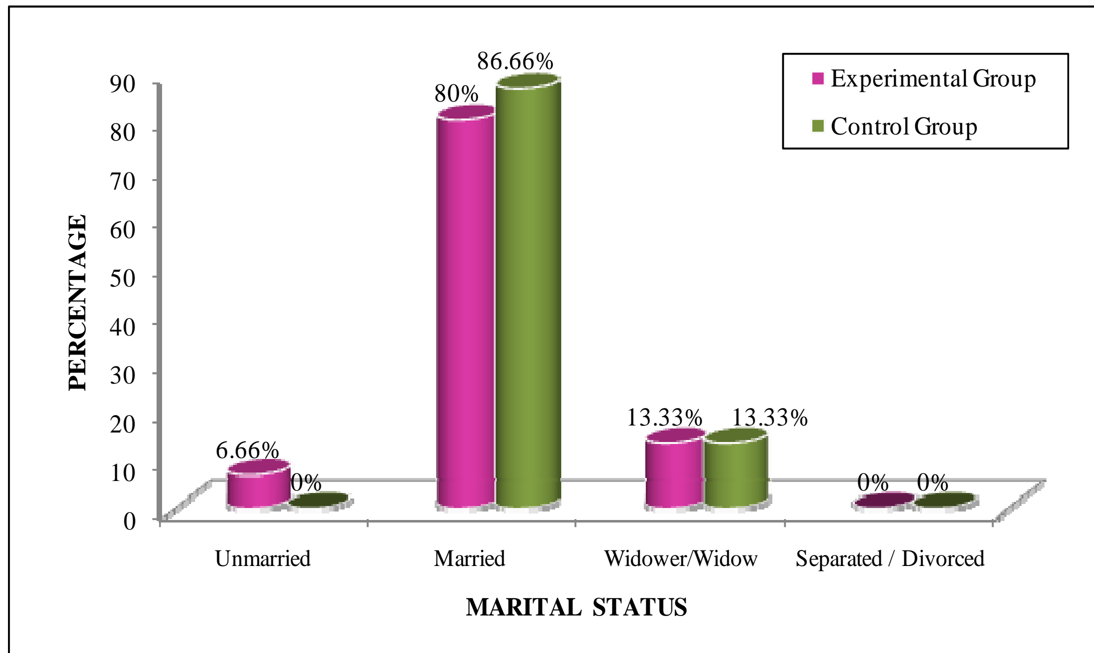


Fig-7. Distribution of the sample according to the Family support

N = 60

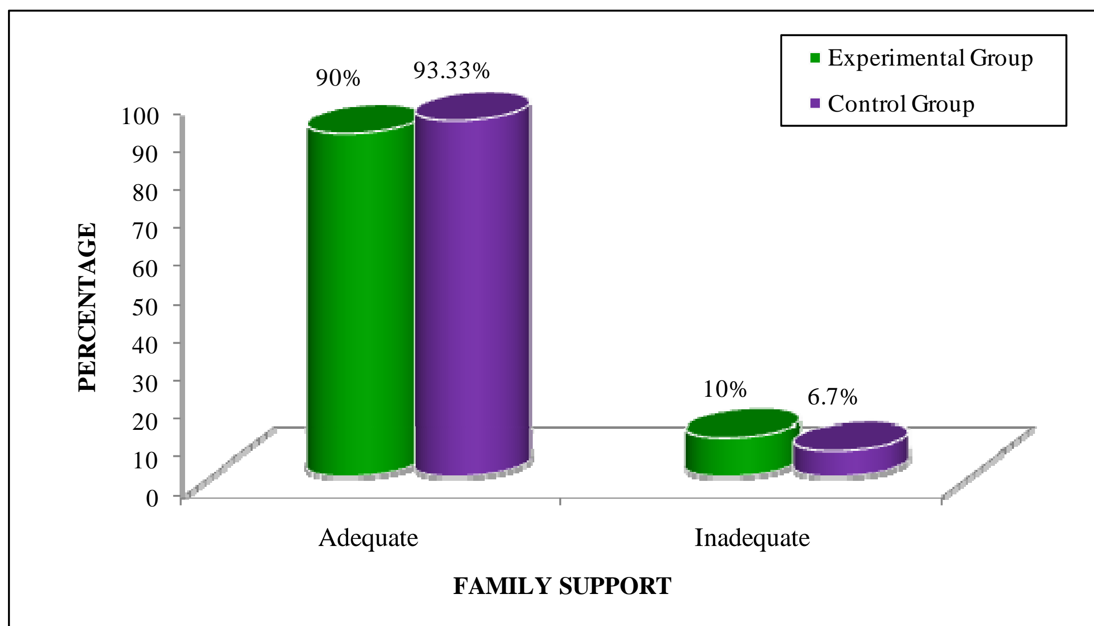


Fig-8. Distribution of sample according to the Source of Income

N = 60

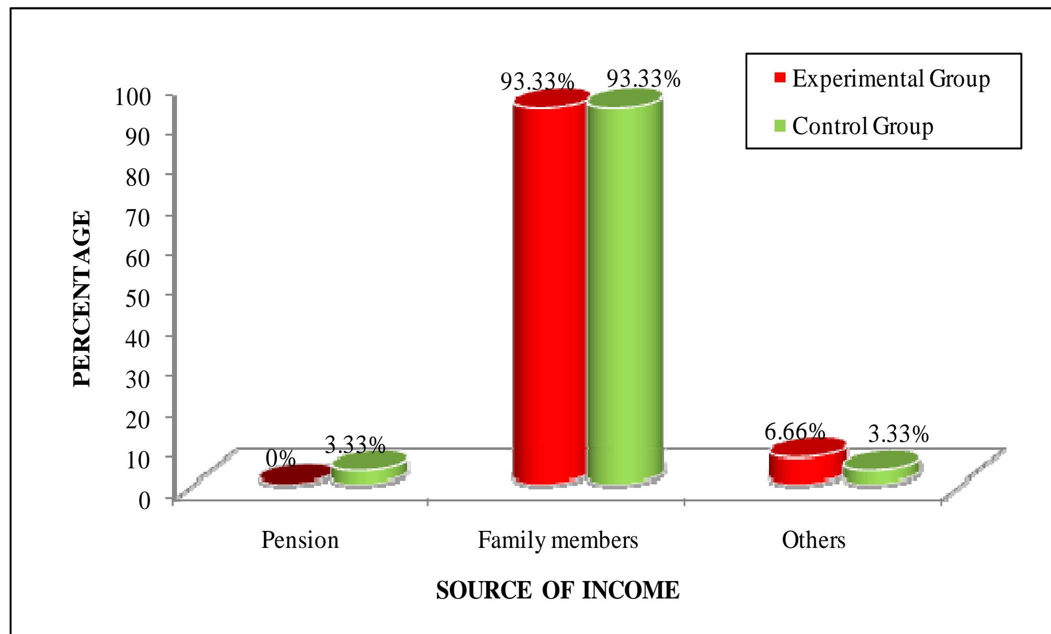


Fig-9. Distribution of sample according to the Period of stay

N = 60

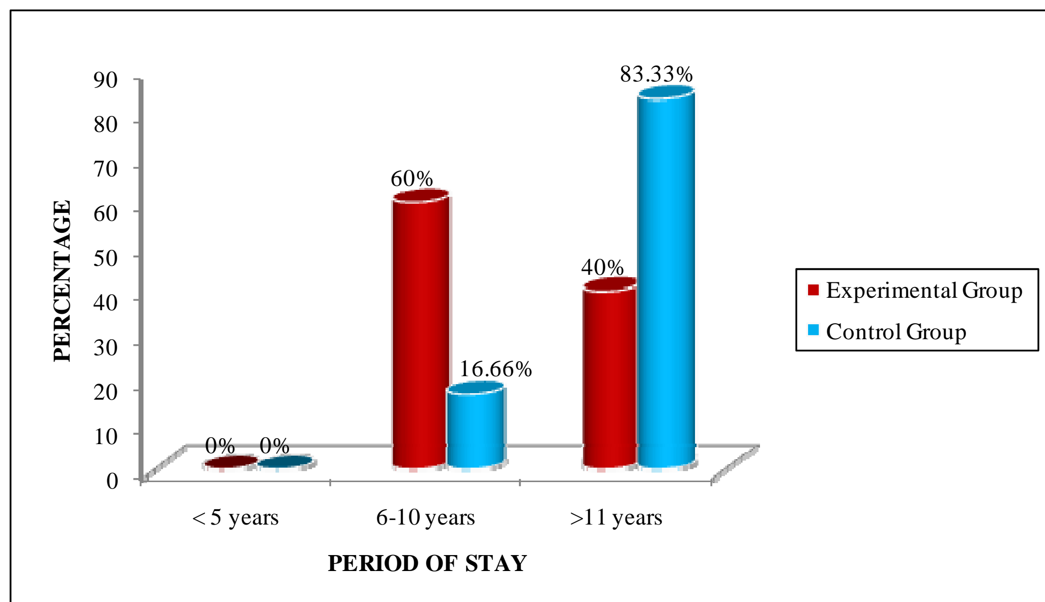
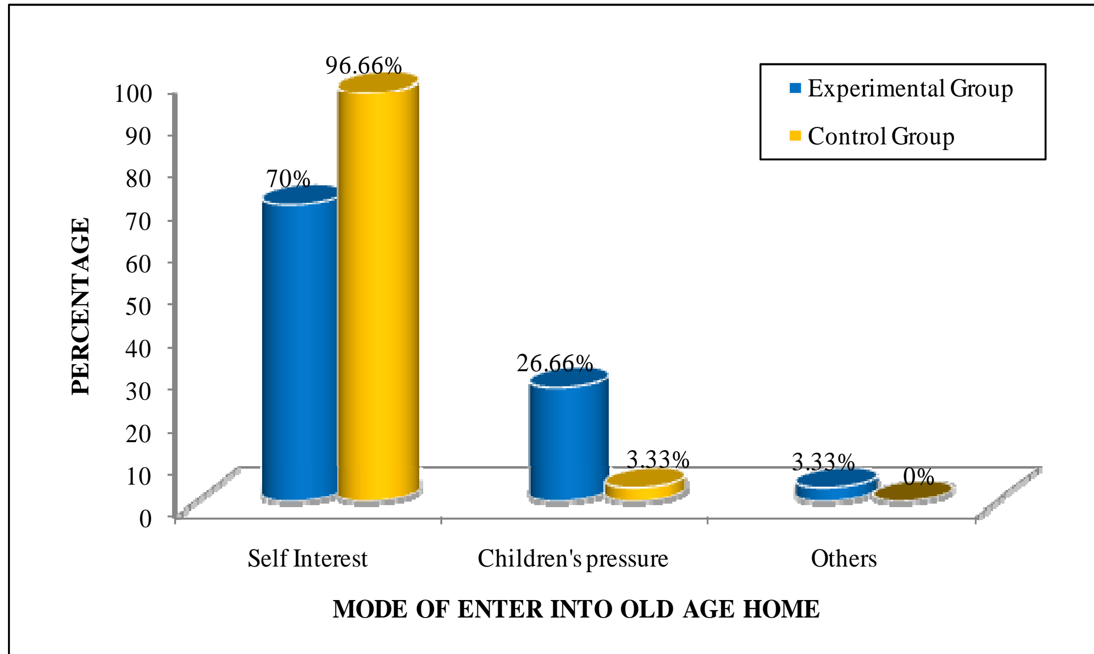


Fig-10. Distribution of the sample according to the Mode of entering into Old age home

N = 60



SECTION II

This section deals with the distribution of the sample based on the level of depression in a pretest score of experimental and control group.

Table 2 : Distribution of the sample based on the level of depression in a pretest score of experimental and control group.

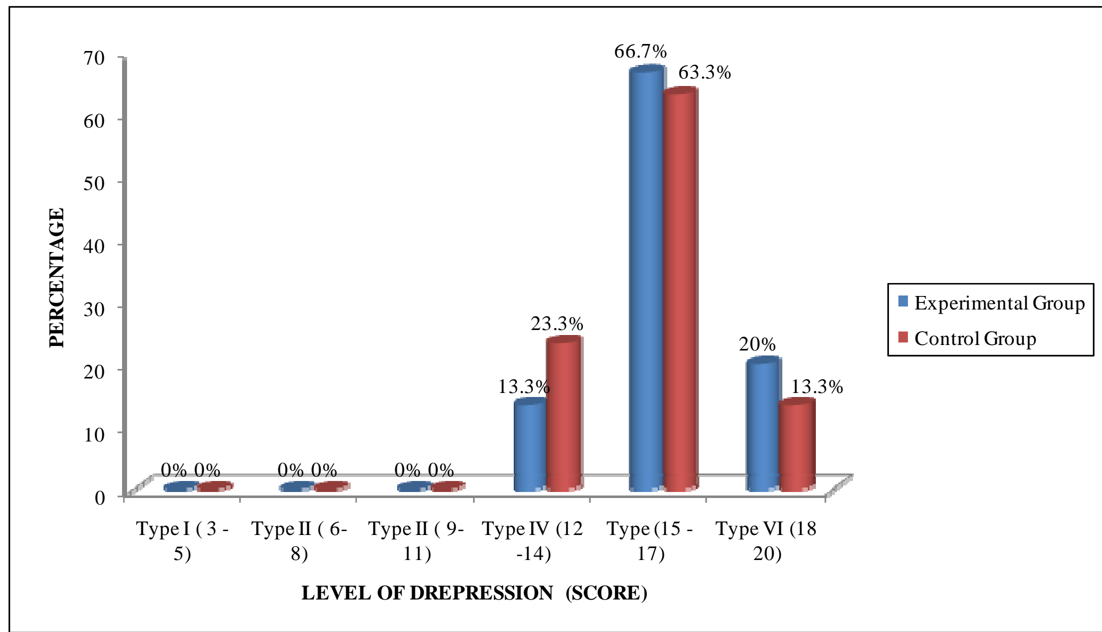
N = 60

Sl. No	Level of depression (score)	Pretest experimental group		Pretest Control group	
		Frequency	Percentage	Frequency	Percentage
1.	Type I (3 -5)	-	-	-	-
	Type II (6-8)	-	-	-	-
	Type II (9- 11)	-	-	-	-
	Type IV (12 -14)	4	13.3%	7	23.3%
	Type (15 -17)	20	66.7%	19	63.3%
	Type VI (18 20)	6	20%	4	13.3%

Table 2 shows that in pretest experimental and control group 4 (13.3%), 7 (23.3%) comes under type IV score level, In pretest experimental and control group 20 (66.7%), 19 (63.3%) comes under type V score level and Pretest experimental and control group 6 (20%), 4 (13.3%) comes under type VI score level . None of them comes under type I, type II, type III level of score in pretest experimental and control group.

Fig-11 Distribution of the sample based on the level of depression in Pretest score of experimental and control group.

N = 60



Section III:

This section deals with the distribution of the sample based on the level of depression in post test scores of experimental and control group.

Table 3: Distribution of the sample based on the level of depression in post test scores of experimental and control group.

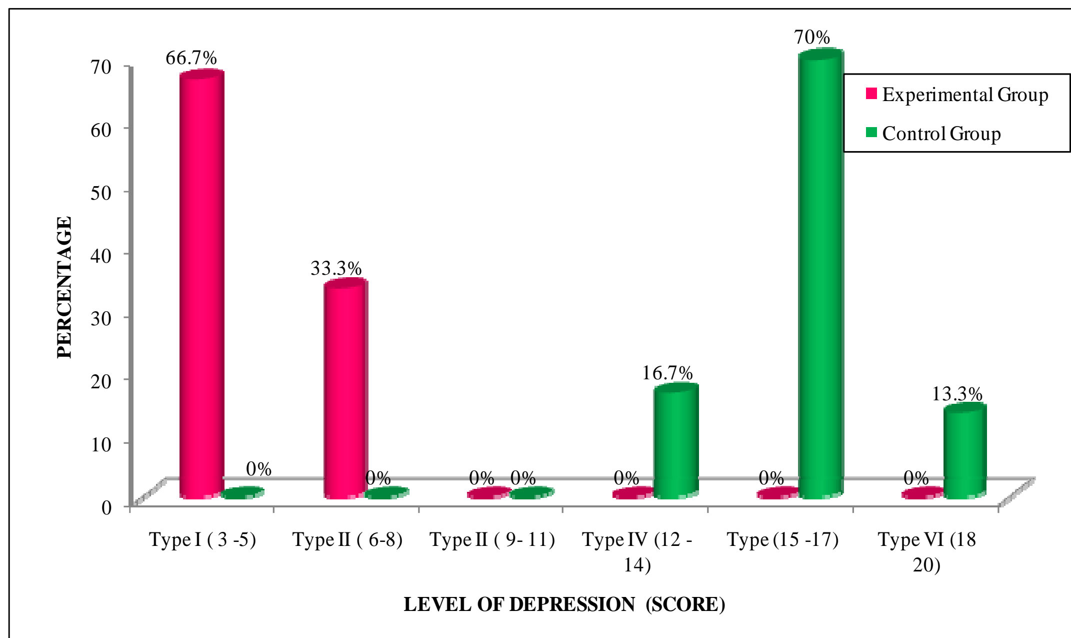
N = 60

Sl. No	Level of depression (score)	Posttest experimental group		Posttest Control group	
		Frequency	Percentage	Frequency	Percentage
1.	Type I (3 -5)	20	66.7%	-	-
	Type II (6-8)	10	33.3%	-	-
	Type II (9- 11)	-	-	-	-
	Type IV (12 -14)	-	-	5	16.7%
	Type (15 -17)	-	-	21	70.0%
	Type VI (18 20)	-	-	4	13.3%

Table 3 shows that, in post test experimental group 20 (66.7%) comes under type 1 score level, whereas in post test control group none of samples comes under this score. In post test experimental group 10 (33.3%) comes under type II score level where as in posttest control group none of the samples come under this group. But in post test control group 5 (16.7%) comes under type IV score, 21 (70%) comes under type V score, 4 (13.3%) comes under type VI score.

Fig-12 Distribution of the sample based on the level of depression in Post test score of experimental and control group

N = 60



Section IV

This section deals with analysis of comparison of sample in pretest mean score and post test mean score level depression among experimental group.

Table 4: Comparison of sample between pretest and post test level depression among experimental group.

N = 60

Category	**Sample size**	**Mean score**	**Standard deviation**	**Paired "t' test**	
				Tabulated value at 1% difference	**Calculated value t 1% difference**
Pretest	30	16.20	1.49	2.660	34.056 [S]
Post test	30	5.13	1.04		

S- significant at 1% level.

Table 4: represents the pretest and post test level of depression of experimental group sample. The observed "T" value at the 1 % level of significance was 34.056, which was higher than the tabulated value 2.660, it indicates highly significant at $p<0.01$.So researcher accepted research hypothesis and concluded that there was a significant difference between pretest and post test levels of depression in the experimental group.

SECTION V

This Section deal with the effectiveness of laughter therapy - differences between post test mean score level of depression among experimental and control group.

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

N = 60

Category	Sample size	Mean score	Standard deviation	Paired "t' test	
				Tabulated value at 1% difference	Calculated value t 1% difference
Experimental group	30	5.13	1.04	2.660	33.335^{S}
Control group	30	15..83	1.41		

S- significant at 1% level.

Table5 Shows the difference between the post test level of depression among experimental and control group sample. The observed "t" value was 33.335. This calculated value was greater than the tabulated "t" value 2.660 at 1% level of significance which shows that this was significant. So researcher accepted the research hypothesis and concluded that there was significant reduction in the level of depression in the experimental group after laughter therapy.

SECTION VI:

This section deals with the association of sample between the posttest level of depression of experimental and control group and their selected demographic variables.

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

N = 60

Sl. No	Demographic variable	Experimental group				Control group				
		Level of depression score		Chi square		Level of depression score			Chi square	
		Type I (3-5)	Type II(6-8)	Table value	Calculated Value	Type IV (12-14)	Type V(15-17)	Type VI(18-20)	Table value	Calculated Value
1.	Age			5.99	1.713NS				9.49	5.653NS
	a) 60-69 years	6	5			2	2	2		
	b) 70-79 years	13	4			3	16	2		
	c) 80-89 years	1	1			-	3	-		
2.	Sex of child			3.84	3.675NS				5.99	1.79NS
	a) Male	9	1			1	9	1		
	b) female	11	9			4	12	3		
3.	Educational Status			7.82	6.675NS	-	-	-	9.49	7.129NS
	a)Illiterate	11	4			2	13	1		
	b)Primary	9	3			2	8	3		
	c)Higher Secondary	-	2			1	-	-		
	d)Higher education	-	1			-	-	-		

Sl. No	Demographic variable	Experimental group: Level of depression score		Chi square		Control group: Level of depression score			Chi square	
		Type I (3-5)	Type II(6-8)	Table value	Calculated Value	Type IV(12-14)	Type V(15-17)	Type VI(18-20)	Table value	Calculated Value
4	Previous occupation			5.99	2.408^{NS}				9.49	7.411^{NS}
	House wife	11	8			4	14	2		
	Labourer	6	2			-	7	2		
	Govt Employee	-	-			1	-	-		
	Privateemployee	3	-			-	-	-		
5.	Marital Status			5.99	4.313^{NS}				5.99	3.956^{NS}
	a) Unmarried	-	2			-	-	-		
	b) Married	17	7			3	19	4		
	c)Widower/widow	3	1			2	2	-		
	d) Separated	-	-			-	-	-		
6.	Family Support			3.84	$.000^{NS}$				5.99	1.837^{NS}
	a) adequate	18	9			4	20	4		
	b) Inadequate	2	1			1	1	-		
7.	Source of Income									
	a) Pension	-	9	3.84	0.268^{NS}	1	-	-	9.49	10.714^{S}
	b)Family members	19	9			3	21	4		
	c) others	1	1			1	-	-		
8.	Period of study			3.84	0.625^{NS}				5.99	2.931^{NS}
	a)<5 years	-	-			-	-	-		
	b) 6-10 years	11	7			2	2	1		
	c) >10 years	9	3			3	19	3		
9.	Mode of enter into old age home			5.99	2.277 NS				5.99	6.724^{S}
	a)self interested	15	6			5	21	3		
	b)children pressure	5	3			-	-	1		
	c) others	-	1			-	-	-		

S - Significant at 0.05 level

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

The calculated chi-square value for mode of enter into an old age home in the post test group was higher than the tabulated value of $p < 0.05$ 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 mode of enter into an old age home in the control group.

There was no significant association between post test level of depression in the experimental group and their selected demographic variables such as age, gender, religion, education, occupation, marital status, family support, source of income, period of stay and mode of entering into an old age home .

CHAPTER V
DISCUSSION

The aim of the study is to assess the effectiveness of laughter therapy on reducing depression among senior citizen residing at selected old age home in Virudhunagar. The sample size was 60.

The research design adopted for this study was Quasi experimental design. The setting of the study was Dhanaswamy Parimaladevi social Welfare Trust Virudhunagar. The study findings have been discussed with reference to the objectives , framework and hypothesis of this study.

The objectives of the study:

1. To assess the pre test level of depression in experimental and control group among senior citizens residing at selected old age home in Virudhunagar.
2. To assess the post test level of depression in experimental and control group among senior citizens residing at selected old age home in Virudhunagar.
3. To compare the pre and post test level of depression in the experimental group among senior citizens residing at selected old age home in Virudhunagar.
4. To find out the effectiveness of laughter therapy in experimental and control group in the reduction of depression among senior citizens residing at selected old age home in Virudhunagar.
5. To find out the association between post test level of depression in experimental and control groups with selected demographic variables such as age, gender, religion, education, previous occupation, marital status, family support, source of income, period of stay and mode of entering into an old age home.

1. The first objective was to assess the pretest level of depression in experimental and control group among senior citizens residing at selected old age home in Virudhunagar.

Table 2 shows that in pretest experimental and control group 4 (13.3%), 7 (23.3%) comes under type IV score level , In pretest experimental and control group 20 (66.7%), 19 (63.3%) comes under type V score level and Pretest experimental and control group 6 (20%) , 4 (13.3%) comes under type VI score level . None of them comes under type I, type II, type III level of score in pretest experimental and control group.

The findings of the study were supported by, Li LW, et al (2007) conducted a study about Mental health status of home care elders in Michigan. The results show that 40.5% of the individuals in the sample have recognized mental disorders, 39.6% use psychotropic medications, 24.5% have probable depression, and 1.4% have self-injurious thoughts or attempts and they are more prone to psychological distress.

Aguilar-Navarro S, et al (2007) conducted a study about Depression: clinical features and consequences among the elderly in the united states. The results showed that the prevalence of depression may vary, its range is between 10 to 27%. Fatigue, insomnia, and anorexia, in a cyclical fashion, are the milestone symptoms of depression among the elderly and describes the use of the geriatric depression scale as the most popular screening instrument for this patient population.

So the researcher concluded that senior citizens were having more depression and they are more prone to psychological distress.

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

Table 3 shows that, in post test experimental group 20 (66.7%) comes under type 1 score level, whereas in post test control group none of samples comes under this score. In post test experimental group 10 (33.3%) comes under type II score level where as in posttest control group none of the samples come under this group. But in post test control group 5 (16.7%) comes under type IV score, 21 (70%) comes under type V score, 4 (13.3%) comes under type VI score.

The findings of this study were supported by, Scholl JC, et al (2003) conducted a study of the use of humor in promoting positive provider-patient interactions in a hospital rehabilitation unit. These study findings suggest that humor in these activity sessions was mainly a by-product of more predominant effects, such as patients' positive attitude and happiness and also humor appeared secondary to the primary outcome of promoting the patient's happiness and well being.

So from this above statement, the researcher concluded that, after laughter therapy there was a reduction in levels of depression in senior citizens because it improves the person's positive attitude , promoting the patient's happiness and well being.

3. To third objective was to compare the pre and post test level of depression in the experimental group among senior citizens residing at selected old age home in Virudhunagar.

Table 4 represents the pretest and post test level of depression of experimental group samples. The observed "T" value at 1 % level of significance was 34.056 , which was higher than the tabulated value

2.660, it indicate highly significant at $p<0.01$. So researcher accepted research hypothesis and concluded that there was a significant difference between pretest and post test levels of depression in the experimental group.

The findings of this study were supported by, Richman J, et al (1995) conducted a study about The life saving function of humor with the depressed and suicidal elderly. The results showed that therapeutic humor is associated with five principles: (1) a positive doctor-patient relationship includes the freedom to be humorous; (2) the humor is life affirming; (3) the humor increases social cohesion; (4) the humor is interactive; (5) the humor reduces stress. The main effects are symptom relief and increased cohesion.

4. The fourth objective was to find out the effectiveness of laughter therapy in experimental and control group on reducing depression among senior citizens residing at selected old age home in Virudhunagar.

Table 5 Shows the difference between the post test level of depression among experimental and control group samples. The observed “t” value was 33.335. This calculated value was greater than the tabulated “t” value 2.660 at 1% level of significance which shows that this was significant. So researcher accepted the research hypothesis and concluded that there was significant reduction in the level of depression in the experimental group after laughter therapy.

The findings of this study were supported by, Wooten P, et al (1996) conducted a study about Humor: an antidote for stress. The results showed that humor and laughter can be an effective self-care tools to cope with stress. Laughter provides a physical release for accumulated tension.

During the Post test data collection procedure, the researcher herself was astonished by the positive feedback of the samples (like feeling hopeful, calmful, relax) regarding the effectiveness of laughter therapy.

5. The fifth objectives were to find out the association between post test level of depression in experimental and control group with selected demographic variable such as age, gender, religion, education, previous, occupation, marital status, family support, source of income, period of stay and mode of entering into an old age home.

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

The calculated chi-square value for mode of enter into an old age home in the control group was higher than the tabulated value of $p < 0.05$ 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 mode of enter into an old age home in the control group.

There was no significant association between post test level of depression in the experimental group and their selected demographic variables such as age, sex, religion, education, occupation, marital status, family support, source of income, period of stay and mode of entering into an old age home.

The findings of this study were supported by, Lee MJ, et al (2006) conducted a study about Depression outcomes and quality of post discharge care of elders hospitalized for major depression. The sample consisted of 148 elders (ages 60-95years) who were hospitalized for major depression and discharged to their homes. The findings provided partial support for the association between quality of care and depression outcomes, in that quality of psychosocial care was associated with better outcomes. Also, the findings suggest that the relationship between quality of psychosocial care and depression outcomes may be evident after six months of post acute care.

So from the above statement the researcher concluded that there will be an association between the quality of care and depression outcome after discharged from an old age home.

CHAPTER- VI

SUMMARY, IMPLICATION, RECOMMENDATION AND CONCLUSION.

SUMMARY:-

Depressive illness is observed in people from all countries and every culture, affecting both the sexes, sparing neither the rich nor the poor, formenting all ages, forcing the exit of some through self destruction(suicide) specialty senior citizens. Depression is common in late life, affecting nearly 5 million people out of 30 million of the aged 65 and above so the depressive person should be handled with at most care.

Laughter, it is a new and popular form of therapy, "we need to laugh because it's our weapon we have against everything in the world". There are various research evidence available about the effectiveness of laughter therapy. The aim of the study is to assess the effectiveness of laughter therapy in the reduction of the senior citizen depression.

The conceptual framework adopted for this study is based on modified widenbach's helping the art of clinical nursing theory (1969). Yesavage Geriatric Depression scale was used to find out the level of depression. The simple random sampling technique was used for sample selection. 60 samples (control and experimental group) were taken for this study based on the inclusion criteria. Method of data collection included an interview to find out the level of depression prior to therapy session then experimental group underwent laughter therapy for 4 weeks. On the sixth week again the same GDS tool was administered to both control group and an experimental group to assess the level of depression.

Based on the objectives and hypothesis the data's were analyzed by using both descriptive and inferential statistical methods. Descriptive statistics were used for frequency and percentage , graphical representation such as bar diagram was 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 of testing hypothesis was 0.05 and 0.01.

MAJOR FINDINGS:-

- In the experimental group, 6.66% of the sample belonged to the age group of 70-79 years whereas only 36.66% of the sample belonged to the age group of 60-69 years. Female 66.66%, dominated the Male 33.33% and all of them 100% belongs to the Hindu community. The Number of illiterate higher 50% , than the literate. The majority of them 63.33% were House wife or unemployed. 80% were married and 90% of the sample are having adequate family support. 93.33% of the sample were getting income from family members. The majority of them 60% were staying in an old age home for 6-10 years and 70% as their self interested entered into an old age home.
- In the control group predicts the majority 70% of the samples belonged to the age group of 70-79 years whereas only 20% of the samples belonged to the age group of 60-69 years. Female 63.33%, dominated the male 36.66% and all of them 100% belongs to the Hindu community. The number of illiterate higher 53.33% than the literate. The majority of them 66.66% were Housewife or unemployed. 86.66% were Married . 93.33% of the sample were getting good family support and 93.33% were getting income from family members. The majority of them 83.33 % were staying 6 - 10 years in an old age home and 96.66% as their self interested entered into an old age home.

- The level of depression in pretest experimental and control group 4 (13.3%) and 7 (23.3%) comes under type IV score level . In pretest experimental and control group 20 (66.7%) and 19 (63.3%) comes under type V score level and Pretest experimental and control group 6 (20%) and 4 (13.3%) comes under type VI score level . None of them comes under type I, type II, type III level of score in pretest experimental and control group.
- The level of depression in post test experimental group 20 (66.7%) comes under type 1 score level, whereas in post test control group none of sample comes under this score. In post test experimental group 10 (33.3%) comes under type II score level where as in post test control group none of the sample comes under this group. But in post test control group 5 (16.7%) comes under type IV score, 21 (70%) comes under type V score, 4 (13.3%) comes under type VI score.
- In post test mean score level of depression was lesser than the pre test mean score level of depression in the experimental group, the paired" t" value was t=34.056 and the table value was 2.660 which has shown that it was significant at $p < 0.01$ level.
- The effectiveness of laughter therapy has been experimental on both experimental and control groups. The post test level of depression in the experimental group (5.13) is lesser than the control group (15.83). The calculated value was 33.335 which were higher than the table value 2.660 which indicated that the level of depression as been reduced after the laughter therapy
- There was a significant association between level of depression and their selected demographic variables such as -source of income and mode of entering into an old age home in the control group .

- There was no significant association between level of depression and their selected demographic variables such as age , gender, religion, education, previous occupation, marital status, family support, source of income , period of stay and mode of entering into an old age home in the experimental group.

NURSING IMPLICATIONS:

Laugher therapy is a nurse initiated intervention that has the advantage of being cost effective , therapeutic, social and recreational for the institutionalized older adult. As a communicative psychosocial process, laughter therapy has proven to be a valuable intervention in the depressed senior citizens. Laughter therapy helps clients work through the depression by inducing laughter and reducing the level of depression. These psychological treatments are safe and effective alternatives to drug therapy for mild to moderate depression. Psychological treatment is of particular importance for people who are unable to or uninterested in taking medication.

NUSING PRACTICE:

- Psychiatric nurses should implement laughter therapy, especially in old age homes since literature reveals lack of psychotherapeutic intervention.
- Psychiatric Nurses specializing in geriatric need to be empowered in administering laughter therapy .
- The nurse should integrate laughter therapy as an aspect of nursing intervention in both outpatient settings while carrying clients with depression using the nursing process approach.
- Nurses should supervise and encourage the nursing students to give laughter therapy while caring clients with depression.

NURSING EDUCATION:

1. Current concepts and trends in geriatric care should be included in the nursing curriculum
2. It is essential to incorporate the laughter therapy in the psychiatric nursing curriculum, Since laughter therapy decreases the level of depression among senior citizens which is proved in Evidence Based Practice.
3. Nursing curriculum should encourage the nursing students to give education to depressive clients and their family members regarding laughter therapy and its effectiveness in reducing the level of depression on a routine basis.
4. Post graduate nursing students specializing in psychiatry should be trained in administering laughter therapy
5. Both the teachers and students can involve themselves in incorporating the laughter therapy while going for training to psychosocial rehabilitation center.
6. Nurse educators can arrange in service education program for the nurses who are all working in the psychiatric hospitals and psychosocial rehabilitation center to update their knowledge regarding laughter therapy. Therefore they can efficiently supervise the training nurses and nursing students while giving laughter therapy for psychiatric clients.

NURSING ADMINISTRATION:

- ❖ Nurse administrators can encourage the nurse to use different safe, cost effective, psychotherapeutic intervention (laughter therapy) in reducing depression among senior citizens.

- ❖ The nursing administrator especially of nursing homes and geriatric wards can organize an in-service education program for psychiatric nurses regarding laughter therapy for reducing senior citizen's depression.
- ❖ Nurse administrator should arrange all the resources needed such as man, money and materials to implement this laughter therapy in psychosocial rehabilitation centers.
- ❖ Nurse administrator should create awareness for people through the mass media regarding the importance of alternative modalities of therapies and essentials of laughter therapy in reducing the senior citizens depression.

NURSING RESEARCH:

- ❖ Nurses should take the initiative to conduct more research on the effects of laughter therapy and its benefits can be evaluated.
- ❖ Nurse researcher should publish her study result on laughter therapy in the conferences, workshops or through other media. There by more studies can be conducted in this area in order to strengthen the role of nurse's as laughter therapist. So the effectiveness of laughter therapy will be proved by Evidence Based Practice.
- ❖ Nurse researchers should identify the possible constraints| barriers in practicing laughter therapy and the ways to solve the problem by doing further research.

RECOMMENDATION

1. A longitudinal study can be undertaken to see the long term effect of laughter therapy in the reduction of the level of depression.
2. It can be conducted with large sample size to generalize the findings.
3. A similar kind of study can be conducted to assess the effect of laughter therapy on self esteem , coping and life satisfaction of senior citizens.
4. A similar study can be conducted in reduction of the level of depression with other therapy.
5. A comparative study can be conducted for clients residing in the psychosocial rehabilitation center and clients receiving treatment in hospital settings.

CONCLUSION:

Care of the human mind is the noblest branch of medicine. Depression is common in late life, affecting nearly 5 million people out of 30 millions of the aged above 65, Also pharmacotherapy is contradicted in many senior citizens because of medical illness like diabetes, hypertension, stroke etc.. So there is a need for identifying other new therapies, that's helpful to reduce the depression of senior citizens.

Laughter therapy is a new and popular form of therapy, we need to laugh because it is our weapon we have against everything in the world. Psychotherapists have discovered laughter as an aid in the treatment of several clinical disorders, most notable depression. Laughing also relaxed the body and reduce problems associated with depression, high blood pressure, strokes arthritis and ulcers. As a nurse we should participate in creating awareness and also in providing laughter therapy to the needy people. So, as a whole laughter therapy is effective in reducing depression of senior citizens which is proven in Evidence Based Practice.