

Effectiveness of Life Style Interventions as Self Help Technique to Enhance Psychological Well-Being of Institutionalized and Non-Institutionalized Senior Citizens

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Abstract

Objective: To explore the effectiveness of life style interventions as self-help technique to enhance psychological well-being of institutionalized and non-institutionalized senior citizens.

Tools - Psychological well-being scale, Leisure time activity scale, Life style scale, Depression scale.

Methodology: It is a community based experimental study with a sample of 240 senior citizens selected randomly at phase one and purposive sampling was done at second phase. Population was divided into control (n=120) and experimental group (n=120) in phase II. Assessment was done before and after six months intervention, further follow up was done after a month. The intervention was consist of exercises; diet schedule, physical activities and meditation.

Results: Older people having poor psychological well-being in experimental group showed significant improvements in PWB scale, LTA scale and LS scale ($p < 0.01$) after interventions. Depression found to be significantly higher ($p < 0.05$) among institutionalized group no significant difference was found on other indicators of PWB when compared with non-institutionalized group. But follow-up results showed significant degradation on all indicators of PWB and LS.

Keywords: Psychological; Older people; Institutionalized; Life style scale; Depression scale

Introduction

Aging is in mind. Some people grow old faster than the people of same age group mainly because they think that they are old. In Europe and America there is common saying that life begins at 60. Natural process of ageing will continue and no one can stop it but the process can be delayed by keep physically fit which would necessitate regular physical exercise, controlled diet, regular activities and most important is maintaining the positivity of life through positive thinking [1,2]. Health and wellbeing are not solely depending on the physical fitness and material availability. Regulation of human potential for transcendent experiences and cultivation of wisdom that touches the higher levels of consciousness promote the health and wellbeing [3-7].

The psychological problems of older people need to have a deep understanding of the root cause of their problem so that the treatment of all the frustration, agony, depression, loneliness can be done. It requires a multi-method, multi-disciplinary and applied approach towards problem solving with a goal of making the additional years' worth living in a more positive way. There is a great deal of information that leads us to be hopeful about the prospective quality of life in late adulthood and old age. This study is an attempt to gain insight into the relation between active ways of living life and psychological wellbeing.

This research is focusing on three important variables together such as physical activity, diet and meditation as important determiners of healthy and active life style [8-10]. The concept of health may vary from culture to culture and person to person. As a result patient centered care is emerging as a key concept in modern medicine also. In this research study the interventions are also tailor-made as per the convenience of individual participant. The interventions were made and compared on both institutionalized and non-institutionalized older people. In the intervention program all components i.e. physical, physiological, cognitive and spiritual were used together to experimentally understand their combined effect on PWB.

Objectives

- To examine the effect of life-style interventions on psychological well-being of institutionalized and non-institutionalized older people.
- To compare the impact of the life-style interventions on psychological well-being of older people of control and experimental group.
- To compare the impact of life-style interventions on psychological well-being of older people before and after interventions.

Method

Design of research

The present study is a pre-post cross-sectional study assessing the effect of life style interventions on the psychological health and well-being of community dwelling and institutionalized (living in old age homes) older people and older people of control and experimental group.

Phase I- Pre examination. The administration of questionnaires on all the research participants.

Phase II – Interventions. phase the entire population was divided into two groups – control group and experimental group, those who have poor state of PWB were put in the experimental group and LSI were provided for six month duration. Interventions were provided to experimental group.

Phase III – Post examination. The experimental group was assessed after six months of intervention.

Phase IV- Follow up. Further examination of experimental group after elapse of one month.

Selection criteria

Inclusion Criteria: People aged 60 years and above from all socioeconomic classes and willing to participate in the six month long study were included.

Exclusion Criteria: People below the age of 60 years and came to Delhi just to spend holidays with their children at the time of data collection and were not the permanent residents of Delhi were excluded from the study. Also those older people who were bed ridden/ mental disabilities/ incapable to participate in the intervention program were excluded from the study. Also older people who scored high on the tools assessing PWB and were unwilling to participate in six months long intervention process were excluded from the study.

Sample characteristics

It is a cross sectional study with a total sample size 240; N=120 was drawn from institutions and non-institutions independently. Each sample size of 120 consisted of 60 male and 60 female elderly.

Method of sampling

The selection of sample was based on stratified random sampling method from the community. A sample was collected from the older people living in every fifth house of north-west Delhi as per the voter list. Initially data was collected from more than 240 people considering the possibility of dropouts. An equal number of males and females were kept in the sample for making fare comparisons. A list of old age homes was collected from the website and Delhi national portal, old age homes in the region of north-west Delhi were contact and asked for permission to collect data and participation of older people in the intervention program. Finally data was collected from 5 paid and 5 unpaid old age homes; sample was collected on random basis. Consent was taken from all the participants from community and old age homes before data collection; older people suffering from severe mental health problems or bed ridden were excluded from the study. In the second phase the selection of participants in control and experimental group was based on their present state of psychological health and well-being i.e. purposive random sampling method was

adopted for the selection of older people in control and experimental group. Those older people who scored less on the scale of PWB and life style were put in the experimental group after taking their consent for participation in intervention program for six months; equality of numbers was maintained for the purpose of comparison.

Interventions

Procedures of introducing interventions to non-institutionalized older people: Groups of four to six older people were made on the basis of their liking, proximity and compatibility. Information sharing sessions were conducted with all of them where they were taught about the benefits of regular exercises, healthy diet and meditation. All their queries were satisfied by the experts in the field. Thereafter they were taught the strength, balance and stretching exercises prescribed in the exercise manual by the National Institute of Aging; whose intensity increases from mild to moderate and then to high; they have to follow it regularly for 30-40 minutes in a day. They were also provided with the printed postures of the exercises, so that in any case they do not forget the ways of doing them. Performa was provided to them to keep a record of days they are doing exercise. Older people were encouraged to do it in groups either at home or in parks, the basic reason for group formation was to increase interpersonal interaction, sharing of personal problems and, strengthening the social support system. They were encouraged to come out of their homes and join each other in parks, community centres etc., so that feel the fresh environment and get the opportunity to meet people as well.

The diet chart recommended by All India Institute of Medical Sciences was also given to each older person describing what they have to take in breakfast, lunch, tea time and in dinner. Performa was given to them to keep a record of the meals they skip in a day.

People who never did meditation cannot do it suddenly, keeping this in mind a base was prepared with progressive relaxation techniques; it was taught to them in groups. Then they were switched on to breathing exercises and later on to meditation. Raj yoga meditation was taught to them. It was recommended to do meditation twice in a day, early morning and before sleeping in the night.

Older females were also encouraged to make groups and if they hesitated in going to the parks then they were encouraged to work on these interventions in small groups at home.

It was suggested to increase the leisure time activities of their interest in their daily regime e.g. knitting, gardening, cleaning, drawing, weaving regularly at least for one hour in a day and keep a record of it. Also they were asked to write down and reflect on positive instances of their life. All records were thoroughly checked by the researcher.

Initially the researcher went to the field for twice in a week up to two weeks, after that twice in a month. But telephonically the follow up was done twice in a week.

Researcher regularly asked about-the problems they were facing while working on the interventions. If they were not working on the prescribed schedule then what were the reasons behind that? In this way the feedback was taken on regular basis from the participants and required actions were taken to sustain the motivation level of participants.

Procedure of interventions for institutionalized older people: A procedure was developed to approach institutionalized older people for the assessment of PWB and for the administration of interventions.

In old age homes first the education and awareness was generated among the management employees. They were encouraged to develop positive environment for life style intervention program. After their agreement same interventions were provided to the older people living in old age homes. They were also encouraged to practice them in groups but final decision about practicing them individually or in group were their own. They were also motivated to do regularly some activity of their interest e.g. knitting, gardening, cleaning, drawing, weaving regularly at least for one hour in a day and keep a record of it. That record was thoroughly checked by the researcher weekly. The same procedure was applied with both the groups for better results.

Variables

Following variables are selected on the basis of literature review in the present study.

Independent variable- Leisure time activities, Depression, Lifestyle

Dependent variable- Psychological well-being

Tools used

Personal information schedule

Leisure activities record- Willigen and Chadha (1989)

Life style assessment scale- Mayers life style questionnaire (1998)

Psychological well-being scale- Carl Ryff (1989)

Geriatric depression scale- Brink TL and Jerome A Yesavage (1982)

Personal information schedule- include all the information of the participant of the research i.e. name sex, age, address, phone number, name and address of the old age home, duration of stay in old age home, marital status, living arrangement, financial status, occupation and education.

Analysis: The data of the research study was analyzed statistically through SPSS software. The raw data was analyzed on the basis of descriptive statistics and inferential statistics. In the present research t-test method and ANOVA was used for the analysis of data.

The analysis of data shows that 38.8% older people were married and 61.3% were widowed among them number of female widowed (31.7%) outnumbered male widowers (29.6%). Among the two

categories of old age homes i.e. paid and unpaid; 77.5% are living in unpaid old age homes, the number of males (49%) is greater than number of females (36.7%). The analysis of living arrangement of older people shows 27.5% are living with spouse, 8.8% are living with family, 26.7% are widowed and living with their children and 37.1% are living all alone. 66% older people are dependents as they have no source of earnings. Only 5.8% females were on jobs, 36.7% worked as housewife throughout their life. Among male elderly 27.5% are surviving on their investments from their young age, 8.8% were in jobs, and 13.8% have lived their lives on rent earnings. 26.3% older people are illiterate; only 17.1% graduates. Number of female illiteracy (22.5) is higher than males (3.8).

Variable	N-INS group (N=120)	INS group (N=120)	p-Value
GDS	7.04 (±2.66)	7.74 (±2.64)	2.05*
LTA	10.97(±3.57)	11.10 (±4.09)	0.25
PWB	196.26 (±23.24)	200.76 (±22.41)	1.52
LS	48.81(± 6.88)	47.88 (±6.53)	1.08

Table 1: Baseline comparison of non-institutionalized and institutionalized group on all variables of PWB and Life style; The figures in parenthesis indicate the mean (standard deviation) of subjects involved in the particular category by using the one way ANOVA. The variables marked * and ** indicate those that are statistically significant with p<0.05 and p<0.01 respectively. Abbreviations: INS=Institutionalized group, N-INS=Non-institutionalized group, GDS=Geriatric depression scale, LTA=Leisure time activity, PWB=Psychological wellbeing, LS=Life style

Table 1 shows the baseline comparison among non-institutionalized and institutionalized group, it was found that institutionalized older people were more depressed as compare to non-institutionalized older people. The difference in mean and SD showed that institutionalized people had poorer PWB and life style. Table 2 shows the comparison between institutionalized older adults before and after the administration of Life style interventions (LSI). A significant difference (p<0.01) was found on leisure time activities, PWB and life style. It showed that interventions had positive impact on the psychological well-being of older people.

Variable	INS group (n=60)		p value	N-INS group (n=60)		p-Value
	Baseline data	After LSI data		Baseline data	After LSI data	
GDS	6.31 (±2.44)	5.71 (±2.02)	1.46	6.41 (±1.88)	5.25 (±2.01)	3.27**
LTA	11.51 (±3.94)	16.23 (±3.21)	7.18**	10.63 (±4.10)	16.83 (±3.12)	9.32**
PWB	201.47 (±23.37)	211.73 (±18.46)	2.67**	199.80 (±22.54)	209.95 (±18.71)	2.68**
LS	49.75 (±7.32)	54.06 (±6.44)	3.43**	52.08 (±7.59)	52.63 (±6.88)	0.42

Table 2: Comparison of Institutionalized and Non-institutionalized group of senior citizens before and after interventions; The figures in parenthesis indicate the mean (standard deviation) of subjects involved in the particular age category by using the one way ANOVA. The variables marked * and ** indicate those that are statistically significant with p<0.05 and p<0.01 respectively. Abbreviations: INS= Institutionalized group, N-INS= Non- institutionalized group, GDS=Geriatric depression scale, LTA=Leisure time activity, PWB= Psychological wellbeing, LS=Life style

The comparison among non-institutionalized group before and after interventions showed significant differences at 0.01 level on depression, utilization of leisure time and PWB. It shows that LSI made positive effect on the PWB, LTA and depression.

The table 3 showed the comparison among three groups of older people i.e., the control group, experimental group and follow up. The significant difference at 0.01 was found on the depression scale and life style scale when the baseline data of control and experimental group was compared. Older people of experimental group were high on

depression and had poor life style. When the same experimental group was measured after administration of Life style interventions significant improvement in LTA ($p < 0.1$), PWB ($p < 0.1$) and LS ($p < 0.1$) was measured. Before interventions the depression of the older people in experimental group was very high but after the intervention the difference between the mean values and SD has reduced which shows that the interventions lowered the depression among the experimental group.

Variables	Baseline data		p -value	After LSI data			p-Value
	Control group (n=120)	Exp. group	Exp. group	p-Value	Follow up		
		(n=120)			(n=120)		
GDS	5.78 (± 2.29)	9.00 (±1.94)	11.72**	6.06(±1.98)	1.03	5.82 (±2.00)	8.26**
LTA	11.08 (±4.03)	11.00 (±3.65)	0.15	16.53 (±3.16)	11.66**	12.43(±3.24)	7.66**
PWB	198.80(±21.49)	198.21(±24.95)	0.2	210.84 (±18.53)	3.79**	119.89(±18.52)	3.98**
LS	50.96 (±7.45)	45.74 (± 4.59)	6.53**	53.35 (±6.67)	2.65**	50.43 (±6.82)	7.42**

Table 3: Comparison among Control and Experimental group on all variables; The figures in parenthesis indicate the mean (standard deviation) of subjects involved in the particular age category by using the one way ANOVA. The variables marked * and ** indicate those that are statistically significant with $p < 0.05$ and $p < 0.01$ respectively. Abbreviations: INS=Institutionalized group, N-INS=Non- institutionalized group, GDS=Geriatric depression scale, LTA=Leisure time activity, PWB= Psychological wellbeing, LS=Life style, Exp=Experimental

The data taken after the interval of one month showed significant differences on depression ($p < 0.1$), LTS ($p < 0.1$), PWB ($p < 0.1$), and LS ($p < 0.1$). It was found that older people need a continuous motivation from the outside environment for the continuation of the same life style.

Discussion

Healthy behavior in old age is viewed in terms of challenges and opportunities. Old age is considered as full of wisdom and experiences at the one hand however on the other end it is associated with depression, prolonged illnesses, frustration and dependencies (physical, social and economic) along with many stereotypes. The problems of elderly people need to be recognized at the deeper level. Therefore in this research a hybrid approach to psychological science of health is used which is multidisciplinary, multi method and applied in nature. Tailor made physical activities [11] exercises, proper diet schedule, breathing exercise as relaxation techniques when combined together form a healthy way of life [8]. Here the focus is on life style-which is an integration of covert and overt behavior of an individual.

According to Indian system of thoughts higher order needs of the extended or inclusive self which are more encompassing bring enlightenment into the life of an individual. It is the feeling of happiness/ bliss (ananda) and satisfaction (santosh), convert the journey of an individual from fragmentation to integration or from self to Self [12]. Breathing exercises and meditation has provided the opportunity to older people to look-inward and understand their problems by looking inward. Results showed that level of depression among elderly reduced and participants started enjoying daily activity schedule. Wellness comes with the end of pain and sufferings, which is possible only by expanding the individual self. In this research an attempt was made to bring people closer to their real self by making them more inward-looking and focusing more and more on Self

growth [13]. They were asked to write and reflect on their positive experiences which has provided high level of self-efficacy and high scores on self-growth and purpose in life ultimately improved their PWB.

LSI also provided the opportunity to enhance social well-being; women also came out of their home [14] it helped in development of social network, sharing of thoughts, problems and their probable solutions it has resulted into improved psychological well-being [15].

People in old age commonly suffer from depression because they are not contented within self and never realized transcending Self; self-realization is accorded greater prominence than self-actualization. It is found that breathing exercises helps in calming down ones anxieties and frustrations. When breathing exercises occupied a fixed place in daily routine helped them in having control on one's self [16,17]

Meditation improves the mental health, cognitive and behavioral flexibility, blood pressure and self-assesses well-being of older participants [18,19]. During research it was found that people were aware of meditation but did not know the right technique of practicing it. They were very excited about learning it in a proper way. It helped researcher to teach them way of inward looking.

Nutrition is an especially important, yet often overlooked aspect of a healthy lifestyle for older people. Ensuring good nutrition becomes more complex with aging. It is found that older people lost their interest in eating mainly because of their dental and digestion problems. Malnutrition is associated with an increased risk of depression in older people. It was found that most of them do not take three meals in a day and fruits and vegetable salads were entirely missing from their meals. Awareness about the need of healthy food and a proper diet schedule helped them a lot in understanding their daily dietary requirements which may lead to compromised quality of

life [20]. Therefore nutrition has emerged as a major modifiable determinant of chronic diseases and age related decline [21]. It is found that in old age homes people are getting proper diet at fixed times but those living in community found to be very careless about their diet. They usually eat whatever other family members are eating or whatever is easily available to them without thinking about its ill effects on their health [22].

Finding showed that experimental group had positive effect of life-style interventions on their psychological well-being [1,23-25]. Through regular meditation and active participation in various activities, along with interventions, older people of experimental group moved towards personal growth and environmental mastery as shown by the results on PWB scale [1]. It lowered the depression and enhances the psychological well-being of older people [26].

In the present study the exercise of moderate intensity were given to the participants of experimental group and they showed more confidence in themselves through more participation in active leisure time activities [27]. Usually in Indian culture it is found that in old age people lost their interest in physical activities such as sports. But despite of various cultural factors people participated enthusiastically in the intervention program which is mainly because of one extraneous variable i.e. involvement of someone in their life for betterment. They felt pride that researcher is taking interest in their life and want to bring some positive changes in that. This feeling motivated them and worked as an extraneous variable for effectiveness of Life style intervention program.

The option available to 60 plus age group is to start their second innings. The jobs are plenty to keep them engaged and earn some money to keep one motivated as well. The days have gone when people after retirement used to plan for pilgrimages and in their back of mind thinking about the penultimate day when they would say good bye to the world. There are so many opportunities in to-days world as one can learn languages, photography, exploring world through internet surfing or reviving the old hobbies [28-36]. What is required is a just a caring hand and support from the outside environment to bring positive change in their sedentary life.

Recommendations and Suggestions

Today's society is undergoing several types of transformations in terms of changing value system, family size, up-gradation in technology, rapid change in economic and political scenario. What best we can do in such situation is to give an attempt to preserve our traditional cultural and familial values at one hand and explore new opportunities to cope up with emerging needs [37-41]. Therefore we should run moral education programs and spread them across the country via media and other public communication modes. At the same time we should develop more and more old age shelter homes in the country to give extended care to our older citizens who contributed in the development of this nation in their young age. Also we should improve the condition of living in unpaid old age homes make them more joyful and self-sustainable for older people who are going to spend lot many years of their life in old age homes therefore we should attempt give them a life full of respect and love [42-55].

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