

## Effect of Health Promotion Activities on Quality of Life of Elderly in Rural Kerala of South India

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### Abstract

Interventions incorporating both educational and recreational activities can bring in positive changes to participants whatever may be their age group not to mention elderly. Realising the opportunities available and support from family and community as well as participating in various social activities can keep the elderly busy and active. A feeling of inner peace and gratitude for being wanted by the dear and near will be induced instead of solitude and or isolation and negligence. Regaining freedom and independence through community activities and a life free from diseases will boost their confidence and bring in successful ageing. The present study was a pre-test post-test control group design. After assessing the quality of life (QOL) of elderly, they were divided into two groups. The experimental group (n=204) received a set of classes and instruction on how to fight the debilitating conditions by getting organized themselves. The QOL of the control group (n=203) was assessed at the beginning of the study. The control group received all necessary sessions after assessing the QOL. The study proves to be successful and cost effective if undertaken by the community. Stepping up of the community in the affairs of their elderly will be twofold. Elderly will be benefitted and the young and adults in community can learn valuable lessons from this experienced group and plan for improve their own life to minimize frictions and for successful ageing. The tool used was Older People Quality of Life 35 developed by Bowling A.

**Key words:** health promotion, quality of life, elderly, Kerala

### Introduction

The ageing process had swept all over the world and open both opportunities and challenges to the governments and community. The increase in proportion of people with “wisdom” was contributed by the declining birth and death rates. Prolongation of life does not guarantee neither

quality of life (QOL) nor what is called successful ageing. Quality of life is defined by the World Health Organization as “individuals’ perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations,

standards, and concerns.” Successful ageing refers to getting maximum of satisfaction out of life (Havighurst, 1961). Ageism exists in both more developed and less developed countries which ultimately resulting either marginalising the elderly or keeping them away from routine family or community activities. The elderly are partially responsible for this type of undemocratic or lukewarm treatment from their community. It is high time for the elderly to drop the role of passive onlooker and get themselves armed with more energy and high self-esteem and get themselves engaged at moderate level in activities once they were engaged. Though the elderly are suffering from debilitating conditions of social, physical and psychological, they still could have a pronounce effect on their community. Health sector can offer elderly a range of services for keeping them healthy or minimising their debilitating conditions. Apart from providing medical care there is scope for non-clinical intervention which can improve their life’s quality and help them to enjoy successful ageing. The present study hypothesizes that improvements in life’s quality can be achieved through health promotion activities.

### Materials and Methods

This was a prospective study conducted in four wards of Arpookara Panchayat of Kerala state of South India covering population in the 60years and above age group. Apart from assessing the QOL the study also aims to impart a health promotion package and measure its impact on QOL of the study population. For assessing the QOL, the tool used was older people quality of life 35 (OPQOL35) devised by Bowling, A. (2009). For identifying elderly population, voters list issued by Election Commission of India was used. To avoid contamination, elderly in two wards were used as experimental group and those in the remaining two wards was used as control group. Systematic sampling was used to enlist the study subjects. The study group received scientific sessions on importance of mental

health, physical health, and dental health by clinicians working in the respective specialities. Further two awareness sessions on various government level programmes available for elderly were conducted. Further, one day session on how to live gracefully at old age was also conducted and faculties from psychiatry and clinical psychology were the resource persons. These sessions were given for the experimental group at an interval one month. Elderly were motivated to participate in the discussion followed at the end of each session. Then last session was designed to chart out the future strategies aimed to enhance welfare of the elderly at the Panchayat ward level. Practical guideline in forming association of elderly and legal obligations /duties and responsibilities of such an association were deliberated. QOL was measured before the beginning of the first session, after 6 months and after one year following the last session. Sample size was 407 and of this 204 received the intervention and 203 were in the control group. At the end of the third round of data collection control group received exposure to most of the sessions attended by the experimental group. To prove the two groups were homogenous with respect to important socio demographic variables Chi square test was used. Analysis of variance for repeated measures (ANOVA) was used to assess the significance of mean scores of OPQOL over the three observation periods.

### Results

Majority in the study group are within the age range 60-69 years and the mean age of the study group was  $69.1 \pm 7.2$  years and the age ranges from 60 years to 96 years. Females were more in the study group with sex ratio being 1394 for 1000 males. The religious distribution with majority of Christians reflect the religious composition of Kottayam district. With the exception of 14% all others were in the ever married category and nearly three fourth of them were still in the marital union.

Unemployment was high in this group with 66% report no employment. Majority are having some source mostly from pensions offered from government agencies but 28% depends on their

wards for financial needs. The two groups were comparable with respect to important socio demographic characteristics

**Table 1: Background Characteristics of the study group**

Socio demographic factors		Experimental		Control		Total	%	$\chi^2$	df	p
		N	%	N	%					
Age	60 - 69	113	55.4	118	58.1	231	56.8	1.24	2	0.538
	70-79	73	35.8	63	31.0	136	33.4			
	≥80	18	8.8	22	10.8	40	9.8			
Sex	Male	82	40.2	88	43.3	170	41.8	0.42	1	0.519
	Female	122	59.8	115	56.7	237	58.2			
Religion	Hindu	87	42.6	87	42.9	174	42.8	7.51	2	0.023
	Christian	105	51.5	114	56.2	219	53.8			
	Muslim	12	5.9	2	1	14	3.4			
Marital status	Married	148	72.5	156	76.8	304	74.7	1.07	3	0.785
	Unmarried	31	15.2	26	12.8	57	14.0			
	Widow/Widower	22	10.8	19	9.4	41	10.1			
	Divorced	3	1.5	2	1	5	1.2			
Education	Illiterate	33	16.2	28	13.8	61	15.0	4.48	3	0.214
	Primary	96	47.1	108	53.2	204	50.1			
	High school	55	27	57	28.1	112	27.5			
	Higher secondary	20	9.8	10	4.9	30	7.4			
Occupation	Unemployed	128	62.7	141	69.5	269	66.1	6.29	6	0.391
	Farmer	31	15.2	31	15.3	62	15.2			
	Coolie	22	10.8	20	9.9	42	10.3			
	Skilled	7	3.4	5	2.5	12	2.9			
	Office	11	5.4	3	1.5	14	3.4			
	Business	4	2	2	1	6	1.5			
	Industrial	1	0.5	1	0.5	2	0.5			
Source of income	Work	20	9.8	15	7.4	35	8.6	4.68	4	0.322
	Welfare Pension	75	36.8	94	46.3	169	41.5			
	Service pension	40	19.6	37	18.2	77	18.9			
	No income	60	29.4	52	25.6	112	27.5			
	Other	9	4.4	5	2.5	14	3.4			

**Table 2: Difference in the mean OPQOL35 scores over three observation periods**

Domain		Pre test	Six months after intervention	Twelve months after intervention
Total QOL	Experimental	38.57±7.2	57.1±5.4	60.9±4.4
	Control	38.63±7.6	44.4±11.3	44.8±14.7
	Total	38.6±7.4	50.8±10.8	53.0±13.5
Life overall	Experimental	42.12±9.1	60.9±6.7	61.5±8.5
	Control	43.53±8.8	48.9±12.4	48.6±14.3
	Total	42.82±8.9	55.1±13.4	55.2±13.4
Health	Experimental	50.81±17.1	64.27±10.3	65.45±9.8
	Control	52.40±16.4	55.52±15.5	48.69±14.2
	Total	51.59±16.8	59.97±13.8	57.22±14.8
Social relationship	Experimental	26.26±13.2	49.55±8.7	57.84±9.1
	Control	25.98±10.8	33.17±15.0	38.70±21.5
	Total	26.12±12.1	41.50±14.7	48.42±19.0
Independence	Experimental	44.40±10.9	60.39±8.1	60.32±7.9
	Control	43.94±12.9	48.01±16.1	47.68±18.2
	Total	44.17±11.9	54.30±14.1	54.10±15.3
Home and neighbourhood	Experimental	24.0±11.6	46.70±8.8	58.83±10.6
	Control	22.06±9.7	31.37±16.0	37.51±23.6
	Total	23.04±10.7	39.15±14.9	48.34±21.1
Psychological and emotional well being	Experimental	30.15±12.7	52.46±10.3	60.97±9.5
	Control	28.04±12.2	36.19±16.1	42.5±21.8
	Total	29.11±12.5	44.45±15.8	51.9±19.1
Financial circumstances	Experimental	59.39±18.2	67.72±11.6	63.87±12.5
	Control	58.84±19.3	61.47±17.2	52.3±15.8
	Total	59.12±18.7	64.64±14.9	58.19±15.3
Leisure and activities	Experimental	35.96±10.9	56.81±7.1	60.07±8.6
	Control	37.88±11.1	43.61±13.8	44.30±16.8
	Total	36.91±11.1	50.32±12.7	52.31±15.4

Table 2 shows that the intervention programmes was quite effective in enhancing the OPQOL35 Scores for the study group as a whole as well as for the domains. The difference between the pre-test score and the post test score at the end of 6 months was high in the domains of life overall, home and neighbourhood, social relationship, psychological and emotional well-being, and

leisure and activities. The magnitude itself tells the effectiveness of the programme. Though the magnitude diminished during the next 6 months, the changes still persist in these domains.

Table 3 shows the findings from repeated measures of ANOVA. Statistically significant differences were observed between groups and within groups. Interaction was also significant

indicating that intervention made significant changes in the experimental group. The last column shows the effect size as obtained from the

output of repeated measures of ANOVA. The findings in Table 2 are confirmed by the values of partial eta squared.

**Table 3: Results of ANOVA for Repeated Measures (Values of F and significance)**

Domain	Between groups (A)	Within group (B)	Interaction (C)	Difference in mean values between Pre-test QOL score and score at six months (D)	Difference in mean values between QOL score at 6 months and score at 12 months (E)	Effect size (partial eta squared) (F)
Total QOL	163.7(.000)	490.2(.000)	150.5(.000)	-12.1(.000)	-2.2(.000)	.306
Life overall	106.9(.000)	238.7(.000)	77.2(.000)	-12.1(.000)	-.13(.000)	.223
Health	61.3(.000)	42.9(.000)	51.1(.000)	-8.3(.000)	2.8(.000)	.141
Social relationship	131.2(.000)	368.2(.000)	74.3(.000)	-15.3(.000)	-6.9(.000)	.261
Independence	74.8(.000)	107.2(.000)	39.4(.000)	-10.0(.000)	.201(.716)	.167
Home and neighbourhood	154.2(.000)	389.3(.000)	59.2(.000)	-16.0(.000)	-9.1(.000)	.293
Psychological and emotional well being	120.3(.000)	374.6(.000)	55.2(.000)	-15.2(.000)	-7.4(.000)	.244
Financial circumstances	28.8(.000)	22.6(.000)	14.0(.000)	-5.5(.000)	6.5(.000)	.072
Leisure and activities	97.1(.000)	283.3(.000)	93.9(.000)	-13.3(.000)	-1.9(.000)	.207

(In columns A through C, F values and statistical significance are given in the parentheses. In columns C and D differences in adjacent QOL score are given. Column F gives effect size).

## Discussion

OPQOL 35 successfully incorporated all the essential components in the quality of life in old age people. Each component of the scale can elaborately speaks of volumes about their importance or why they cannot be ignored in any study that concerns about the life's quality. The psychometric properties of the tool vouch for its validity and reliability. The present intervention study at the outset was an enquiry whether changes could impart in at least those components of the scale that can guarantee what is called active ageing. The statistical significance in the interaction component, the changes in the mean scores and the values of

partial eta squared clearly shows that the intervention was successful in bringing changes in those components that are vital for social living. These components include home and neighbourhood, psychological and emotional well-being, social relationship, leisure and activities and life overall. The intervention inducts socialization and improvements in neighbourhood activities. The change in the leisure and activity component and life overall are also noteworthy. The intervention did bring change in those components that support successful ageing. Coming out of the residence and spending time with the known and newly founded friends itself will bring in

positive changes. Formal and informal social activities like participation in meetings and entertainments reduces their anxiety, depressive moods, irritating behaviour and initiates them to the valuable lessons of understanding and respecting other people. This will also strengthen the qualities of resilience. Many elderly think that problems associated with advanced age is unique for them and they are the one and only one suffering in this world. In the socialization process they will get an opportunity to understand the situation among the persons in their age bracket, how they manage or overcome the problems and this can give the elderly an opportunity to understand the ground reality and inculcates relief and confidence. At this age it is important to keep elderly in active mode. For this the role of leisure activities should be more focussed. A number of studies highlights its role in the life of elderly. (Paggi ME, Jopp D, Hertzog C (2016), Yu S, 2019, Devraj S, D'mello MK. 2019.). Such activities improve their societal attitude and enhance their self-esteem and skills. Community can also approach them for their wisdom and experience for its advancement.

Two Social theories that worth mention here are the Activity theory of Havighurst, Neugarten and Tobin (1961) and the Continuity theory of Atchley (1989). The former asserts that to maintain a positive self-image the older persons must develop new interests, hobbies, roles, and relationships to replace those that are diminished or lost in late life and the latter theory while highlighting the importance for older people to adapt to changes to maintain the same activities, behaviours, relationships as they did in their earlier years of life but asserts that the latter part of life is simply a continuation of the earlier part of life, a component of the entire life cycle and reminds that introverts will be introverts and extroverts will enjoy the life better in their old age. Extroversion cannot be greatly influenced at latter ages but participation in group activities can mitigate its influence. Practical suggestions

include (i) formation of small groups elderly at a place very near to their house so that they can easily access the it and attend meetings, (ii) visit and classes officials from both Governmental and non-governmental agencies at least once in a month (iii) promoting their talents in storytelling, poem recitation, drawing, acting etc and (iv) encouraging them in the participation of games like chess, caroms and card playing which results in the more usage of brain. Routine morning walk in the neighbourhood will help in contacting existing friends as well as newfound pals.

Many clinical trials and non-randomized experimental studies clearly shows that quality of life elderly can be greatly influenced (Rana A.M et al (2009) Malekafzali H et al (2010), Santos LF et al (2015) and Ng TP et al (2015). The present interventional study also proves the same. This and other studies cannot ensure lifelong QOL because of rapid changes occurring in the lives of elderly. Once a change has been established it is of paramount importance to retain and nurture it. The role of gamekeeper must be taken by none other than the community. Inclusion of geriatric care in academic curricula and offering grade points for students involving elderly care is also a positive step. The benefits are two fold. The community can understand the social, economic, psychological, health and environmental issues of this distinguished part of the community. Lessons learned in this process equip community to plan in advance so that pestering issues of old age eliminated or kept at mild or moderate level. In this sense old age care activities is beneficial to both elderly and the community.

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