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**Good health: a mainstay for better adjustment among elderly**

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**ABSTRACT**

Five hundred and forty rural and urban male and female elderly under the age group of 60-74, 75-84 and 85 and above were randomly selected from Dharwad Taluka. Data were collected through exploratory and personal interview methods. Personal information schedule was used to elicit auxiliary information of the subjects regarding demographic variables. The adjustment pattern, health status and socio-economic status (SES) of rural and urban elderly were studied. On the basis of the results that indicated a large number of elderly with physical health problems and adjustment problems an intervention programme was conducted on a non-experimental group with a designed educational training programme. The impact was assessed through a single pre- and post-test design. With respect to physical health problems few of the health diseases and disorders such as arthritis, hypertension, diabetes, numbness, asthma, tremors and cardiovascular diseases, joint pain, knee pain, poor hearing and poor vision were present to a greater extent in some of the elderly. Majority of them showed average category of adjustment in the areas of marital, financial and health aspects. Intervention programme had significant positive impact on the health status and adjustment pattern of the elderly who fell in lowest level of physical health and adjustment pattern and which lead to the better health and better adjustment in different areas.

**Keywords:** Ageing; elderly; adjustment pattern; old age; health status; diseases

**INTRODUCTION**

In India all persons who are sixty years or above are considered or included among the aged. The World Health Organization's vision statement for active ageing states that active ageing is the process of optimizing opportunities for health, participation and security in order to enhance quality of life as people age (Anon 2002). Mental health and emotional well-being are as important in older age as in any other stage of life. Statistics released by the Union Ministry of Health and Family Welfare showed that life expectancy in India has gone up by about five years from 62.3 years for males and 63.9 years for females in 2001-2005 to 67.3 years and 69.6 years respectively in 2011-2015. As a result people are living longer. They constitute a vastly experienced human resource with tremendous potential to contribute to national development. In

1950 there were about 200 million persons aged 60 and above in the world and this figure now stands at 550 million and is expected to reach 1 billion mark by the year 2020.

Ageing is inevitable. It reflects many changes that occur throughout human life since birth till death. They have to struggle and adapt different stages of life. Especially in older age change in whole system takes place. They have poor immune system and are more susceptible to different diseases. These changes are the natural accompaniment of what is commonly known as ageing. At a health and socio-cultural level terms such as 'successful ageing', 'healthy ageing' and 'active ageing' have risen in prominence in the gerontology literature of late (Hadler 2011). However a successful ageing must encompass more than the mere absence of disease and dysfunction (Blazer 2006).

For successful adjustment in old age senior citizens must carry forward the life styles and relationships from mid-life into later life (Havighurst 1961, Atchley 1989). There are many criteria that can be used to assess the kind of adjustment elderly people make four of which are quality of behaviour patterns, changes in emotional behaviour, personality changes and life satisfaction or happiness. Those who have not prepared themselves psychologically or economically for the changes that old age inevitably brings often find adjusting to those changes a traumatic experience.

The National Policy on Older Persons has identified principal areas of intervention and one of them is development of trained manpower to meet the special health needs of the elderly (Dandekar 1993). Intervention education programmes would not only improve the skills of the residents in their daily functioning but also provide an avocation to them helping with healthy ageing (Rani 2004).

Early interventions to promote an active life can reduce the proportion of physical health problems, psychological health problems and induce well adjustment with life events. Hence an attempt has been made to evolve a plan for intervention.

## METHODOLOGY

An exploratory study was conducted during 2013-2015 in urban and rural areas of Dharwad Taluka. A randomly selected sample of 540 elderly (270 each from rural and urban area) of both the gender in the age group of 60-74, 75-84 and 85 and above were selected.

A non-experiment with single pre- and post-test design was taken up to know the impact of intervention programme provided to the rural elderly who fell in lowest level of physical and psychological health and adjustment pattern for enhancing the physical health, mental health and adjustment pattern among elderly. The intervention programme was delivered for 15 weeks with two sessions per week and each session was for two hours in two villages of Dharwad Taluka with a designed educational training programme.

A personal information schedule was developed to elicit auxiliary information of the subjects regarding demographic variables. Ageing schedule by Badiger and Kamath (2009) to assess the health status

and old-age adjustment inventory scale of Hussain and Kaur (1995) were employed to assess the adjustment pattern of elderly and socio-economic status scale of Aggarwal et al (2005) was employed to assess the SES of the family.

Data were collected through interviews and by individually administering the standardised scales. Elderly were personally contacted at their homes and were briefed about the purpose of the study and interviewed. Some of the educated respondents were asked to follow the instructions given in the questionnaire and they filled the questionnaire by themselves whereas information from illiterate respondents was gathered through personal interview method. The caregiver's opinion was also sought to assess their attitude towards elderly and in order to triangulate the responses given by the elderly regarding adjustment pattern. The duration of each interview was about 60-120 minutes. The questionnaire was given to urban elderly in English and Kannada languages to elicit clear answers.

## RESULTS and DISCUSSION

Table 1a depicts physical health diseases among elderly. Majority of the elderly had no health problems at all such as tremors (80.2%), asthma (79.4%), cardiovascular diseases (79.1%), numbness (64.3%) and diabetes (46.3%) while some of them had health problems to some extent such as hypertension (57.2%), arthritis (42.8%), diabetes (40.7%), numbness (28.9%), cardiovascular diseases (17.8%), asthma (15.0%) and tremors (14.8%). Few of the health diseases were present to a greater extent in some of the elderly such as arthritis (51.1%), hypertension (27.8%), diabetes (13.0 %), numbness (6.9%), asthma (5.6%), tremors (5.0%) and cardiovascular diseases (3.1%).

Table 1b indicates physical health disorders among elderly. It is clear from the data that majority of the elderly had no health problems at all such as constipation (77.7%), headache (76.3%), heel pain (74.4%), skin itching (71.8%), reproductive problems (67.2%), acidity (64.8%), poor hearing (56.5%), uncontrollable bladder (52.4%), back pain (43%) and poor vision (35.4%) while some of them had health problems to some extent such as knee pain (57.8%), back pain (57.0%), poor vision (54.6%), joint pain (49.6%), uncontrollable bladder (47.6%), acidity (35.2%), reproductive problems (31.9%), skin itching (28.1%), heel pain (25.6%), poor hearing (24.3%),

Table 1a. Distribution of elderly by the type of health diseases (n= 150)

Disease	Number of respondents affected		
	To greater extent	To some extent	Not at all
Cardiovascular diseases	17 (3.1)	96 (17.8)	427 (79.1)
Diabetes	70 (13.0)	220 (40.7)	250 (46.3)
Arthritis	276 (51.1)	231 (42.8)	33 (6.1)
Tremors	27 (5.0)	80 (14.8)	433 (80.2)
Hypertension	150 (27.8)	309 (57.2)	81 (15.0)
Asthma	30 (5.6)	81 (15.0)	429 (79.4)
Numbness	37 (6.9)	156 (28.9)	347 (64.3)

Figures in the parentheses indicate percentages

Table 1b. Distribution of elderly by intensity of health problems (n= 150)

Disorder	Number of respondents affected		
	To greater extent	To some extent	Not at all
Poor vision	54 (10.0)	295 (54.6)	191 (35.4)
Poor hearing	104 (19.3)	131 (24.3)	305 (56.5)
Back pain	-	308 (57.0)	232 (43.0)
Knee pain	140 (25.9)	312 (57.8)	88 (16.3)
Joint pain	205 (38.0)	268 (49.6)	67 (12.4)
Headache	-	128 (23.7)	412 (76.3)
Acidity	-	190 (35.2)	350 (64.8)
Constipation	-	120 (22.2)	420 (77.7)
Skin itching	-	152 (28.1)	388 (71.8)
Heel pain	-	138 (25.6)	402 (74.4)
Uncontrollable bladder	-	257 (47.6)	283 (52.4)
Reproductive problems	5 (0.9)	172 (31.9)	363 (67.2)

Figures in the parentheses indicate percentages

headache (23.7%) and constipation (22.2%). Few of the health problems were present to a greater extent in some of the elderly such as joint pain (38.0%), knee pain (25.9%), poor hearing (19.3%) and poor vision (10.0%). The findings are in line with the work of Mamatha (2014).

Table 2 shows adjustment pattern in different areas with respect to the locality of the elderly. Among rural elderly majority had average (57.0%) whereas majority of the elderly from urban area showed good health adjustment (55.9%). Only 17.4 per cent rural elderly had good adjustment in health area. In case of urban elderly 40.4 per cent showed average health adjustment.

With respect to home adjustment majority of the urban (85.6%) and rural elderly (59.6%) showed good adjustment while 14.4 per cent elderly from urban

area and 40.37 per cent from rural area had average home adjustment. None of the elderly from both the localities showed poor home adjustment. In case of social adjustment similar trend was observed in which majority of the urban (87.8%) and rural elderly (70.4%) showed good adjustment.

In case of marital adjustment 77.4 per cent rural and 51.1 per cent urban elderly reported average adjustment whereas good adjustment was seen among 13.0 and 40.4 per cent rural and urban elderly respectively.

Emotional adjustment was found to be good among 71.1 per cent urban and 39.6 per cent rural elderly followed by average adjustment 15.9 per cent and 45.6 per cent respectively. Poor emotional adjustment was seen among 14.8 per cent rural and 13.0 per cent urban elderly.

Table 2. Distribution of elderly on areas of adjustment by locality (n= 540)

Area		Number of respondents			Modified $\chi^2$	PBC value	t-value
		Rural	Urban	Total			
Health	Poor	69 (25.6)	10 (3.7)	79 (14.6)	106.4**	0.47**	12.36**
	Average	154 (57.0)	109 (40.4)	263 (48.7)			
	Good	47 (17.4)	151 (55.9)	198 (36.7)			
	Mean $\pm$ SD	13.33 $\pm$ 5.11	18.44 $\pm$ 4.47	15.89 $\pm$ 5.43			
Home	Average	109 (40.37)	39 (14.4)	148 (27.40)	45.88**	0.35**	8.51**
	Good	161 (59.6)	231 (85.6)	392 (72.6)			
	Mean $\pm$ SD	18.12 $\pm$ 4.17	20.99 $\pm$ 3.65	19.56 $\pm$ 4.17			
	Average	80 (29.6)	33 (12.2)	113 (20.9)	24.72**	0.31**	7.54**
Social	Good	190 (70.4)	237 (87.8)	427 (79.1)			
	Mean $\pm$ SD	16.14 $\pm$ 2.94	18.03 $\pm$ 2.88	17.09 $\pm$ 3.06			
	Poor	26 (9.6)	23 (8.5)	49 (9.1)	52.73**	0.23**	5.51**
Marital	Average	209 (77.4)	138 (51.1)	347 (64.3)			
	Good	35 (13.0)	109 (40.4)	144 (26.7)			
	Mean $\pm$ SD	10.12 $\pm$ 2.42	11.41 $\pm$ 2.96	10.76 $\pm$ 2.78			
Emotional	Poor	40 (14.8)	35 (13.0)	75 (13.9)	63.05**	0.29**	7.26**
	Average	123 (45.6)	43 (15.9)	166 (30.7)			
	Good	107 (39.6)	192 (71.1)	299 (55.4)			
	Mean $\pm$ SD	12.87 $\pm$ 4.42	15.79 $\pm$ 4.90	14.33 $\pm$ 4.89			
Financial	Poor	6 (2.2)	3 (1.1)	9 (1.7)	74.28**	0.38**	9.38**
	Average	211 (78.1)	117 (43.3)	328 (60.7)			
	Good	53 (19.6)	150 (55.6)	203 (37.6)			
	Mean $\pm$ SD	8.64 $\pm$ 2.17	10.56 $\pm$ 2.57	9.60 $\pm$ 2.56			

Figures in the parentheses indicate percentages, NS: Non-significant, \*\*Significant at 1 per cent level

Financial adjustment was found to be average in majority (78.1%) of the rural elderly and 43.3 per cent urban elderly whereas 55.6 per cent urban and 19.6 per cent rural elderly had good financial adjustment.

Significant association was found between locality and areas of adjustment such as health, home, social, marital, emotional and financial status. Correlation was positive and significant with respect to locality and areas of adjustment.

The mean scores of areas of adjustment with respect to locality showed significant difference at one per cent probability in the areas of health, home, social, marital, emotional and financial aspects. Results indicated that adjustment in all the areas was found to be better in case of urban elderly as compared to their rural counterparts.

Table 3 depicts the adjustment pattern of rural male and female elderly before and after intervention. Significant difference in the adjustment pattern of rural male and female elderly before and after intervention

in the areas like health, home, social, marital, emotional, financial and overall adjustment was recorded. The mean scores of different adjustment areas of rural male and female elderly before intervention were found to be lower than that of after intervention indicating that intervention programme had significant positive impact on the adjustment pattern of them which showed better adjustment in different areas after intervention. Results are in agreement with those of Cherian (1999).

Table 4 depicts the impact of intervention on health status among rural male and female elderly before and after intervention. The mean scores of health status of rural male (44.60) and female (42.60) elderly were found to be low before intervention whereas after intervention it got increased (49.20 and 48.37 in male and female respectively). Significant deference was observed in the health status of rural male and female elderly before and after intervention indicating positive impact of intervention. Thus intervention had positive and significant impact on health status and adjustment pattern of the rural male and female elderly. Results are corroborated by Wang et al (2005).

Table 3. Comparison of different adjustment patterns of rural elderly before and after intervention (n= 60)

Area of adjustment	Rural elderly					
	Male			Female		
	Pre-test Mean $\pm$ SD	Post-test Mean $\pm$ SD	Paired t-value	Pre-test Mean $\pm$ SD	Post-test Mean $\pm$ SD	Paired t-value
Health	11.17 $\pm$ 3.28	19.17 $\pm$ 3.90	10.86**	11.30 $\pm$ 3.65	20.73 $\pm$ 2.59	14.71**
Home	16.20 $\pm$ 4.03	21.30 $\pm$ 3.63	8.64**	17.47 $\pm$ 3.43	22.7 $\pm$ 1.77	11.04**
Social	15.60 $\pm$ 2.29	19.40 $\pm$ 1.63	8.52**	14.53 $\pm$ 2.43	20.07 $\pm$ 0.82	11.73**
Marital	11.17 $\pm$ 1.51	13.17 $\pm$ 2.06	7.05**	8.47 $\pm$ 1.96	9.10 $\pm$ 2.36	4.08**
Emotional	11.30 $\pm$ 3.60	17.70 $\pm$ 3.50	9.37**	11.17 $\pm$ 3.51	18.93 $\pm$ 1.25	11.58**
Financial	7.97 $\pm$ 1.24	11.57 $\pm$ 1.90	9.20**	7.57 $\pm$ 1.45	11.80 $\pm$ 1.56	19.90**
Overall adjustment	73.40 $\pm$ 12.96	103.13 $\pm$ 13.42	11.51**	70.50 $\pm$ 13.21	104.37 $\pm$ 5.95	17.23**

NS: Non-significant, \*\*Significant at 1 per cent level

Table 4. Comparison of health status of rural elderly before and after intervention (n= 60)

Variable	Rural elderly					
	Male			Female		
	Pre-test Mean $\pm$ SD	Post-test Mean $\pm$ SD	Paired t-value	Pre-test Mean $\pm$ SD	Post-test Mean $\pm$ SD	Paired t-value
Improvement in health status	44.60 $\pm$ 3.36	49.20 $\pm$ 2.74	11.03**	42.60 $\pm$ 4.22	48.37 $\pm$ 3.20	13.91**

\*\*Significant at 1 per cent level

Table 5 represents the correlation between health status and adjustment pattern among rural and urban elderly. The health status of elderly was positively and significantly correlated with adjustment indicating that better the health status better is the adjustment of the elderly. Results are in line with the work of Gaur (2009) and Mamatha (2014).

Table 5. Correlation between health status and adjustment pattern among elderly

Variable	r-value
Health status	1
Overall adjustment pattern	0.334**

\*\*Significant at 1 per cent level

## CONCLUSION

The present study revealed that majority of the elderly had no health problems at all whereas few

of the health diseases and disorders were present to a greater extent in some of the elderly such as arthritis, hypertension, diabetes, numbness, asthma, tremors, cardiovascular diseases, joint pain, knee pain, poor hearing and poor vision. Majority of the elderly showed good adjustment pattern in the areas like social, home, overall adjustment and emotional while majority of them belonged to average category of adjustment in the areas of marital, financial and health aspects. Intervention programme had significant positive impact on the health status and adjustment pattern of the rural male and female elderly which showed better health status and adjustment after intervention.

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