

Quality of Life among University Employees with Hypertension

Madhu Manjula, K.¹, MVR Raju.²

¹Research scholar, Dept of Psychology, Andhra University.

²Professor & Head, Dept of Psychology, Andhra University

Abstract: *The prevalence of hypertension is equally high in developing countries like India. There is a welcome trend in the quality of life of individuals in health and medical treatment. With this background, the present study was carried out to find out quality of life of teaching and non-teaching employees with hypertension. The sample for this study consisted of 300 teaching and non-teaching employees with hypertension (Male =205, Female-95) working in Andhra University, Visakhapatnam, Andhra Pradesh. A purposive sampling technique was used. World Health Organization Quality of Life (WHOQOL) and a demographic data developed by the researcher were administered. The data was obtained and analyzed by means of t-test and ANOVA. The major findings of study revealed significant differences found between quality of life and demographic factors among teaching and non-teaching employees with hypertension. The study also recommends various methods for enhancing quality of life*

I. Introduction

Hypertension is an increasingly important medical and public health issue. The “Framingham” heart study investigators recently reported the life time risk of hypertension to be approximately 83% for men and 90% women who were non hypertensive at 55 or 65 years old and survived to age 80 to 85. Even after adjusting for competing mortality, the remaining life time risks of hypertension were 86 to 90% in women and 81 to 83% in men (Framingham, 2002).

Hypertension is a silent killer. According to Carretero & Oparil, (2000) hypertension is determined by the levels of systolic and diastolic blood pressure as measured by a sphygmomanometer. The average blood pressure is 120/80 mm Hg for young adult males and 8-10 mmHg less for adult females. W.H.O. has called it as ‘hypertensive epidemic’. The prevalence of these disorders is equally high in developing countries like India (Prasad, 2007).

Quality of Life (QoL)

In literature, the term ‘quality of life’ is often referred to as ‘well-being’. However, there are a number of challenges to develop a meaningful understanding of the terms, quality of life and/or well-being. The first is to ascertain what exactly the terms mean (Clarke, Marshall, Ryff, & Rosenthal, 2000; Farquhar, 1995). The quality of life is a term that is used to describe an individual’s whole life. It looks at all aspects of life together, on the assumption, that, all are interconnected and also affected by and connected to all parts of the environment, in which the person lives. It also looks at the processes –such as exercising individual choice – that acts as a means of achieving quality of life (Ivan Brown & Roy Brown, 2003).

Quality of life is an individual’s perception of their position in life, in context of the culture and the value systems in which they live, and in relation to their goals, expectations, standards and concerns [World Health Organization Quality of Life (WHOQOL) Group, 1993].

She found that groups were homogeneous for age, gender, ethnicity, educational level and marital status. Maria Virginia de Carvalho (2013)ved that normotensive individuals showed a better health-related quality of life when compared with hypertensive patients. In other study, Uma (2012) showed that people in the old age-group have higher systolic BP and heart rate than those in the pre-retirement age-group. People in the young and middle age-groups have lower systolic and diastolic BP, and heart rate than those in the older age-groups. People in the age-group of 40–58 years have the lowest levels of stress and anxiety as compared with the younger and older age-groups. In a study, Vipin Kumar & Srivastava (2012) compared the quality of life in Hypertensive and Normotensive male and female. Ham (2011) found that socio demographic and psychosocial factors were independently associated with HRQoL. Compared to married women, widowed or divorced women had significantly lower HRQoL, whereas those with higher levels of stress perception and those not performing regular exercise had significantly lower HRQoL .

II. Objectives of the study

1. To find out quality of life among university employees with hypertension.
2. To find out the significant differences between Quality of Life and demographical variables such as gender, age and designation among university employees with hypertension

Design

The present study is a quantitative survey research method. The data was collected by means of purposive sampling method. The dependent variable is quality of life and independent variables are gender, age and designation.

Participants

The sample for this study consisted of 300 university employees with hypertension who are also under medication (Male =205, Female-95). All the participants are working in Andhra University, Visakhapatnam, Andhra Pradesh. The inclusion criteria were teaching and non-teaching employees, who have been diagnosed with hypertension and are under medication. Employees other than university community were not included in the study. Teaching and non teaching employees with hypertension, and co morbid conditions, and those who are not under medication, were excluded from the study.

Tools

The present study used Quality of life assessment instrument (WHOQOL) developed by World Health Organization, in the year of 1998. The WHOQOL-100 assesses individual's perceptions 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. However, the structure that will continue to be used for the WHOQOL-100 is the original six domain one (WHOQOL, 1998).the tool consists of Physical health, Psychological health, Level of Independence, Social relationships, Environment , Spirituality/Religion/Personal beliefs and Overall quality of life and general health

Demographic Variables:

The demographic variables included in the present study are such as gender, age, designation and income of teaching and non-teaching employees with hypertension.

1. Gender: Male/ Female.
2. Age: Age consists of below 30 years/ 31 to 40 years/ 41 to 50 years/ 51 to 60 years.
3. Designation: It consists of Teaching (Professor/ Associate Professor/ Assistant Professor) and Non-teaching (Officer/Superintendent/Record Assistant/Group D) employees with hypertension.

III. Procedure

To obtain permission for conducting the study, an official letter was secured from the research director from the Department of Psychology, Andhra University. According to the inclusion criteria, the data was collected from teaching and non-teaching staff of different departments of the University. After seeking permission, the target group was informed and consent form was obtained. The participants were explained about the purpose of the study. They were also informed that the responses provided by them will be kept highly confidential and will be used for research purpose only.

IV. Analysis of data

The collected responses after scoring were tabulated. Statistical procedures, such as mean, standard deviation, t- test and one-way ANOVA were computed by means of SPSS 16th version.

V. Results & Discussions

Table-1 differences in gender and quality of life

Variable	Gender	N	Mean	Std.	t-value
Overall Quality of life/ General health	Male	205	13.09	2.46	2.74**
	Female	95	12.29	2.10	
Physical health	Male	205	60.96	4.85	2.01*
	Female	95	59.66	5.88	
Psychological Health	Male	205	70.09	6.88	.189
	Female	95	70.24	6.53	
Level of Independence	Male	205	62.79	5.83	4.87**
	Female	95	59.01	7.07	
Social relationship	Male	205	36.45	3.10	.449
	Female	95	36.27	3.24	
Environment	Male	205	46.72	4.72	.449

Quality Of Life Among University Employees With Hypertension

	Female	95	45.06	4.70	
Spiritual domain	Male	205	12.89	2.38	2.83**
	Female	95	12.81	2.52	

Table - 1, results shows significant differences between gender and overall quality of life/ general health, physical health, level of Independence and in spiritual domain. The overall quality of life/ general health for male employees the mean scores (M=13.09) is higher when compared with mean score (M =12.29) of female employees and t-value is (t=2.74), which is significant, (p< 0.01). The results can be interpreted that males maintained good physical, psychological, independence, social relations and spiritual energy when compared with female. In the domain of physical health, male employees mean score (M=60.96) is higher when compared with mean score (M=59.66) of female and t-value is (t=2.01), which is significant, (p< 0.05). The results indicate that males are maintaining good physical comfort, energy, sleep and rest when compared with female employees.

In the domain of level of independence, mean scores (M=62.79) of male is higher when compared with mean score (M =59.01) of female and t-value is (t=4.87), significant, (p< 0.01). The results indicate that male employees are maintaining good mobility, activities of daily living, dependence on medicinal substances and medical aids and work capacity when compared with females.

In the spiritual domain, male employees mean scores (M=12.89) is higher when compared with mean score (M =12.81) of female employees, t-value (t=2.83), is significant, (p< 0.01). The results indicate that male sample maintain good personal beliefs as well as religion and practice spirituality when compared with female sample.

From the above results it can also be observed that both male and female employees are equally experiencing psychological health, level of Independence, social relationship and have good environment conditions. Similarly, Maria Virgínia de Carvalho (2013) found that groups were homogeneous for age, gender, ethnicity, educational level and marital status. It was observed that normotensive individuals showed a better health-related quality of life when compared with hypertensive patients.

Table- 2 differences in age across the sample and quality of life dimensions

Variable	Age	N	Mean	Std.	F-value
Overall Quality of life/ General health	Below 30	4	13.00	1.15	.80
	31-40	28	12.32	2.07	
	41-50	114	13.05	2.36	
	51-60	154	12.77	2.45	
	Total	300	12.84	2.37	
Physical health	Below 30	4	61.00	2.31	1.82
	31-40	28	59.00	5.58	
	41-50	114	60.10	5.16	
	51-60	154	61.16	5.20	
	Total	300	60.55	5.22	
Psychological health	Below 30	4	68.50	7.51	1.31
	31-40	28	69.50	6.51	
	41-50	114	69.34	8.13	
	51-60	154	70.88	5.54	
	Total	300	70.13	6.76	
Level of Independence	Below 30	4	62.25	7.23	.47
	31-40	28	62.86	3.81	
	41-50	114	61.26	6.39	
	51-60	154	61.59	6.93	
	Total	300	61.59	6.48	
Social relationship	Below 30	4	39.50	4.04	2.00
	31-40	28	35.79	2.49	
	41-50	114	36.19	3.03	
	51-60	154	36.57	3.26	
	Total	300	36.39	3.14	
Environment	Below 30	4	41.50	2.89	2.66*
	31-40	28	44.68	3.78	
	41-50	114	46.18	4.69	
	51-60	154	46.60	4.93	
	Total	300	46.19	4.77	
Spiritual domain	Below 30	4	13.00	1.15	1.56
	31-40	28	12.54	2.03	
	41-50	114	12.54	2.47	
	51-60	154	13.15	2.45	
	Total	300	12.86	2.42	

*p < 0.05 significant level

Table-2, results show significant difference between age quality of life dimensions and environment domain. In this domain the mean scores employees in the age group of 51-60 years (M=46.60) were found to be higher when compared with the mean score (M =46.18) of age groups 41-50 years. It has also been found that the, 31-40 years mean score (M =44.68) and below 30 years mean score (M =41.50) the F-value is (F=2.66), significant, (p< 0.05).

The results indicate that, higher the age group, such employees are able to maintain good financial resources, freedom, physical safety and security, health and social care, accessibility and quality home environment, opportunities for acquiring new information and skills, and opportunities for participation in recreation/leisure, physical environment (pollution/noise/traffic/climate) when compared lower age group employees.

The above results also indicated that different age groups of employees are equally experiencing overall better quality of life, general health, physical health, psychological health, level of Independence, social relationship environment and spiritual domains.. This means that no significant differences among different age groups in above domains were observed. From the above table only an environment significant difference is observed.

Table-3 differences in type of profession across sample and quality of life dimensions

Variable	Designation	N	Mean	Std.	t-value
Overall Quality of life/ General health	Teaching	100	14.58	2.07	10.48**
	Non-teaching	200	11.97	2.02	
Physical health	Teaching	100	62.48	5.02	4.68**
	Non-teaching	200	59.59	5.07	
Psychological Health	Teaching	100	67.67	7.558	4.61**
	Non-teaching	200	71.37	5.97	
Level of Independence	Teaching	100	65.44	6.05	8.00**
	Non-teaching	200	59.67	5.81	
Social relationship	Teaching	100	37.96	3.17	6.53**
	Non-teaching	200	35.61	2.82	
Environment	Teaching	100	48.95	4.45	7.76**
	Non-teaching	200	44.82	4.30	
Spiritual domain	Teaching	100	14.33	2.05	8.23**
	Non-teaching	200	12.13	2.25	

Table-3, results show significant difference between type of profession and overall quality of life/ general health, physical health, psychological health, level of Independence, social relationship, environment and spiritual domain. In the overall quality of life/ general health, the mean scores (M=14.58) of teaching faculty is higher when compared with mean score (M =14.52) of non-teaching employees, and t-value is (t=10.48) highly significant (p< 0.01). The results indicate that teaching faculty tend to maintain good physical, psychological, independence, social relations and spiritual energy when compared with non-teaching employees.

In the domain of physical health, the mean scores (M=62.48) of teaching faculty is higher when compared with mean score (M =59.59) of non-teach employees, and t-value is (t=4.68) highly significant (p< 0.01). The results indicate that teaching faculty maintain good physical comfort, proper energy, sleep and rest when compared with non-teaching employees.

In the domain of psychological health, the mean scores (M=71.37) of non-teaching employees is higher when compared with mean score (M =67.67) of teaching employees, and t-value is (t=4.61) highly significant (p< 0.01). The results indicate that non-teaching employees are maintaining good psychological functions such as positive effect, sensory process, thinking, learning, memory, concentration, self-esteem, body image and appearance when compared with teaching faculty.

In the domain of level of independence, the mean scores (M=65.44) of teaching faculty is higher when compared with mean score (M =59.67) of non- teaching employees, and t-value is (t=8.00) highly significant (p< 0.01). The results indicate that teaching faculty have good mobility, perform activities of daily living, dependence on medicinal substances and medical aids and work capacity when compared with non-teaching employees.

In the domain of social relationship the mean scores (M=37.96) of teaching faculty is higher when compared with mean score (M =35.61) of non- teaching employees, and t-value is (t=6.53) highly significant (p< 0.01). The results indicate that teaching faculty maintain good loving relationships, intimacy and provide practical support when compared with non-teaching employees.

In the domain of environment, the mean score of (M=48.95) teaching faculty is higher when compared with mean score (M =44.82) of non- teaching employees, and t-value (t=7.76) is highly significant, (p< 0.01). The results indicate that teaching faculty are maintaining good financial resources, freedom, physical safety and security, health and social care: accessibility and quality, home environment, opportunities for

acquiring new information and skills, participation in and opportunities for recreation/leisure, physical environment (pollution/noise/traffic/climate) when compared with non-teaching employees.

In the domain of spirituality, the mean scores (M=14.33) of teaching faculty is higher when compared with mean score (M =12.13) of non- teaching employees, and t-value (t=8.23) highly significant (p< 0.01). The results indicate that the teaching faculty personal beliefs as well as religion and spirituality when compared with non-teaching employees is higher. Similarly, Ham (2011) found that socio demographic and psychosocial factors were independently associated with Health related quality of life(HRQoL).

Table-4 differences in hierarchy across sample and quality of life

Variable	Designation	N	Mean	Std.	F-value
Overall Quality of life/ General health	Professor	42	14.52	2.37	21.24**
	Associate Professor	23	14.43	2.27	
	Assist Professor	35	14.74	1.50	
	Officer	9	13.00	2.00	
	Superintendent	42	12.74	1.86	
	Record Assistant	74	11.95	2.27	
	Group D	75	11.44	1.65	
	Total	300	12.84	2.37	
Physical health	Professor	42	63.17	5.11	9.44**
	Associate Professor	23	62.74	3.68	
	Assist Professor	35	61.49	5.62	
	Officer	9	62.11	4.20	
	Superintendent	42	61.86	5.86	
	Record Assistant	74	60.31	3.95	
	Group D	75	57.29	4.81	
	Total	300	60.55	5.22	
Psychological health	Professor	42	69.12	6.76	5.14**
	Associate Professor	23	68.30	10.64	
	Assist Professor	35	65.51	5.51	
	Officer	9	72.89	5.78	
	Superintendent	42	72.05	6.81	
	Record Assistant	74	70.35	6.50	
	Group D	75	71.80	4.80	
	Total	300	70.13	6.76	
Level of Independence	Professor	42	66.81	6.65	21.05**
	Associate Professor	23	64.52	6.40	
	Assist Professor	35	64.40	4.75	
	Officer	9	62.78	4.29	
	Superintendent	42	63.05	5.14	
	Record Assistant	74	60.66	5.16	
	Group D	75	56.43	5.35	
	Total	300	61.59	6.48	
Social relationship	Professor	42	38.88	3.29	13.50**
	Associate Professor	23	37.87	3.56	
	Assist Professor	35	36.91	2.42	
	Officer	9	35.78	2.22	
	Superintendent	42	37.45	2.78	
	Record Assistant	74	35.35	2.68	
	Group D	75	34.81	2.61	
	Total	300	36.39	3.14	
Environment	Professor	42	49.76	5.06	14.65**
	Associate Professor	23	49.00	3.48	
	Assist Professor	35	47.94	4.14	
	Officer	9	45.78	2.64	
	Superintendent	42	46.95	4.29	
	Record Assistant	74	44.97	4.29	
	Group D	75	43.35	3.97	
	Total	300	46.19	4.77	
Spiritual domain	Professor	42	14.56	2.17	17.50**
	Associate Professor	23	14.52	1.81	
	Assist Professor	35	13.97	2.05	
	Officer	9	12.67	1.50	
	Superintendent	42	13.50	2.30	
	Record Assistant	74	12.09	2.26	
	Group D	75	11.32	1.92	
	Total	300	12.86	2.42	

**p < 0.01 significant level

Table-4, results show significant difference between hierarchy and overall quality of life/ general health, physical health, psychological health, level of Independence, social relationship, environment and spiritual domain. In the overall quality of life/ general health, the mean scores (M=14.74) of Assistant Professors is higher when compared with mean score (M =14.52) of Professors, mean score (M=14.43) of Associate Professor, (M=13.00) officers, (M=12.74) Superintendent, (M=11.95) Record assistant, (M=11.44) of Group D employees and F-value (F=21.24) is highly significant ($p < 0.01$). The results indicate that Assistant Professors are maintaining good physical , psychological , independence, social relations, spiritual and proper energy when compared with other hierarchy of employees.

In the domain of physical health, mean scores (M=63.17) of Professor is higher when compared with mean score (M =62.74) of Associate Professors, mean score (M=62.11) of officers, mean score (M=61.86) of Superintendents, mean score (M=61.49) of Assistant Professor, mean score (M=60.31) of Record assistants, and mean score (M=57.29) of Group D employees and F-value (F=9.44) highly significant ($p < 0.01$). The results indicate that Professors are maintaining good physical comfort, proper energy, sleep and rest when compared with others.

In the psychological health domain, the mean scores (M=72.89) of officers is higher when compared with mean score (M=72.05) of Superintendent, mean score (M=71.80) of Group D employees , mean score (M =70.35) of Record assistant, mean score (M=69.12) of Professor, mean score (M=68.30) of Associate Professor and mean score (M=65.51) of Assistant Professor and F-value (F=5.14) is highly significant ($p < 0.01$). The results indicates that officers are maintaining positive effect, good sensory processes, thinking, learning, memory, concentration, self-esteem, body image and appearance when compared other hierarchy of employees.

In the domain of independence, mean scores (M=66.81) of Professor is higher when compared with mean score (M=64.52) of Associate Professor, mean score (M=64.40) of Assistant Professor, mean score (M =63.05) of Superintendent, mean score (M=62.78) of officers, mean score (M=60.66) of Record assistant, and mean score (M=56.43) of Group D employees and F-value (F=21.05) is highly significant ($p < 0.01$). The results indicate that Professors are maintaining good mobility, perform activities of daily living, dependence on medicinal substances and medical aids and work capacity when compared with other employees.

In the domain of social relationship, mean score (M=38.88) of Professor is higher when compared with mean score (M=37.87) of Associate Professor, mean score (M=37.45) of Superintendents, mean score (M =36.91) of Assistant Professor, mean score (M=35.78) of officers, mean score (M=35.35) of Record assistant, and mean score (M=34.81) of Group D employees and F-value (F=13.50) is highly significant ($p < 0.01$). The results indicate that, Professors are maintaining good and loving relationships, intimacy and provide practical support when compared other employees.

In the environment domain, the mean score (M=49.76) of Professors is higher when compared with mean score (M=49.00) of Associate Professors , mean score (M=47.94) of Assistant Professor, mean score (M =46.19) of Superintendents, mean score (M=45.78) of officers, mean score (M=44.97) of Record assistants, and mean score (M=43.35) of Group D employees and F-value (F=14.65) is highly significant ($p < 0.01$). The results indicate that Professors are maintaining good financial resources, freedom, physical safety and security, health and social care: accessibility and quality, home environment, opportunities for acquiring new information and skills, participation in and opportunities for recreation/leisure, physical environment (pollution/noise/traffic/climate) when compared to other hierarchy of employees.

In the spiritual domain, the mean score (M=14.56) of Professors is higher when compared with mean score (M=14.52) of Associate Professors, mean score (M=13.97) of Assistant Professors, mean score (M =13.50) of Superintendents, mean score (M=12.67) of officers, mean score (M=12.09) of Record assistant, and mean score (M=11.32) of Group D employees and F-value (F=17.50), is highly significant ($p < 0.01$). The results indicate that Professors have been maintaining good personal beliefs as well as religion and spirituality when compared with others.

VI. Conclusion

In this study, an attempt has been made to find significant differences between quality of life and certain demographical variables of the employees with Hypertension of Andhra University. The quality of life Of these employees, belonging to different levels of employment in Andhra University has been assessed. It has been found that men with Hypertension have overall better quality of life than women employees. The difference seems to be contributed especially by male employees maintaining better physical health, higher level of independence and showing better spiritually.

I t is found that there is differential impact of environmental factors on age of the Hypertension employees. The results of this study also indicate that quality of life varies between teaching and non teaching employees. While the overall quality of life is higher for teaching employees, Non teaching employees had higher psychological health. This indicates that psychological health is independent of other domains to some

intent. The study also found that the higher the level of profession of the employees with hypertension, the better is their quality of life on many domains.

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