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EVALUATION OF QUALITY OF LIFE IN PATIENTS WITH HYPERTENSIVE DIAGNOSIS

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Abstract:

Introduction: *Few studies have been successful in evaluating health-related quality of life among patients with a diagnosis of hypertensive who come to clinics or hospitals for follow-up. As Pakistan has dedicated a separate website to address this issue; Feedback through community-based work is necessary to ensure correct planning and implementation. The aim of this study is to evaluate the quality of life of patients with hypertensive diagnosis.*

Methodology: *This is a cross-sectional observational study conducted in the Medicine department of Ayub Medical Complex Abbottabad for six-months duration from October 2019 to March 2020 to determine the relationship between quality of life and hypertensive patients.*

Results: *A total of 184 participants with a mean age of 57.8 completed this study. Female participants (26.8%) overwhelmingly rated their quality of life as excellent compared to male participants (4.9%), although equal numbers of both participants (20.2%) thought they were good.*

Conclusion: *A longitudinal study is needed to explore this important difference in the symptomatology of male and female hypertensive patients on long-term medication.*

Keywords: *Quality of life, Hypertension, Clinical symptoms, Antihypertensive drug therapy.*

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INTRODUCTION:

WHO defines Quality of Life (QoL) as "an individual's perception of his / her position in life in the context of their culture and value systems and in the context of their goals, expectations, standard and worries? Many studies have been conducted on quality of life among hypertensive patients, and findings consistently show that it is lower than normotensive individuals[1-2]. Mainly, worldwide studies have focused on levels of depression, anxiety, and other mental health problems associated with the development and progression of cardiovascular diseases, including hypertension. Thrall, et al. Found that levels of depression and anxiety were highest in patients with atrial fibrillation even 6 months after diagnosis and treatment[3-4]. Another study found that those who knew they were hypertensive were more depressed, while those taking antihypertensive medication were in poor health. Similarly, Mena-Martin et al. Found that hypertensive patients diagnosed and treated had a lower health-related quality of life compared to those who were not treated. In their study, Tamara et al. Found that if diabetes is present in addition to hypertension, it further affects patients' quality of life[5-6]. There is a definite relationship with the decrease / deterioration in quality of life among patients with hypertension. In their study, Ritu et al. Found that the physical domain of quality of life was the part most affected by hypertensive patients. In an in-depth study, Korhonen et al found that quality of life is affected by hypertension awareness, drug side effects, newly diagnosed diabetes or obesity, or their combination, but not blood pressure. high. Another similar study conducted in Spain found that awareness of hypertension among women caused a decrease in health-related quality of life. Previous studies show that the incidence and prevalence of chronic diseases such as diabetes and hypertension are increasing in the Middle East region, especially in Arab countries and other Gulf countries. Many studies have shown that, despite higher life expectancy among the Saudi population, they do not live in good health, and others, these years with the disabled lead to increased expenditure on healthcare and a lower quality of life[7-8]. A study conducted in Pakistan found that only 45% of all participants taking hypertension medications kept their blood pressure in check[9-10]. This means that even with medication, the quality of life is impaired. Similar studies evaluating the relationship between quality of life and hypertension found that physical ability, psychological functioning, mental health, vitality, and social functioning scores were lower than in normal people.

MATERIALS AND METHODS:

This is a cross-sectional observational study conducted in the Medicine department of Ayub Medical Complex Abbottabad for six-months duration from October 2019 to March 2020. Patients diagnosed with hypertension were included for this study. The selection criteria were based on patients over 21 years of age of both sexes, diagnosed with hypertension and treated for at least the last 6 months. The patients were approached by their doctors, who explained the purpose of the study and its benefit to society. By agreeing to participate, patients were asked to provide written consent for the study. Patients with complications related to hypertension, severe morbidity, pregnant and breastfeeding mothers, related mental illnesses, and those who refused to give consent were excluded from the study. Since the level of correlation between unhealthy quality of life and hypertension was not available for the Riyadh region, an expected correlation of approximately 20% was used. 95% confidence interval and 5% precision were used to calculate sample size reaching 245. Considering 20% wear, the final sample size is 196 participants. A closed questionnaire based in part on the Euro-QoL EQ-5D17 was used to collect patient data. It was administered in the presence of a field researcher to address any questions that the participants might have while filling out. No patients who refused to answer any questions or fill out the form were included in the study. All data were entered electronically into SPSS version 24.0 statistical software for analysis. According to the probability table, a nonparametric test of independence (Chi-square test) was used to evaluate the relationship between categorical variables.

RESULTS:

In this study, a total of 184 patients with a mean age of 57.8 years participated in the final census. Most of the participants (42.39%) belonged to the 51-60 age group. The lowest representation (3.26%) corresponded to the age group under 40. The representation of women (57.07%) was higher than that of men (42.93%). This may be because women who are housewives have more time to visit the health center to follow where the interview was taking place for this study.

Table 1 Distribution of hypertensive population according to their attitude towards diagnosis and treatment

Variables		Gender		Total	p-value
		Male	Female		
Diagnosis of hypertension	By regular visit doctor	47 (25.5%)	38 (20.7%)	85 (46.2%)	X^2=21.59 p=0.000
	By emergency	26 (14.1%)	32 (17.4%)	58 (31.5%)	
	Others	6 (3.3%)	17 (9.2%)	23 (12.5%)	
	Not able to recollect	0 (0.0%)	18 (9.8%)	18 (9.8%)	
Total		79 (42.9%)	105 (57.1%)	184 (100%)	
Taking regular medications	Yes	74 (40.2%)	103 (56.0%)	177 (96.2%)	X^2=2.8 p=0.247
	No	4 (2.2%)	2 (1.1%)	6 (3.3%)	
	No response	1 (0.5%)	0 (0.0%)	1 (0.5%)	
Total		79 (42.9%)	105 (57.1%)	184 (100.0%)	
Visit to the doctor for regular check-up	Monthly	66 (36.3%)	89 (48.9%)	155 (85.2%)	X^2=3.77 p=0.287
	Every 3 months	6 (3.3%)	13 (7.1%)	19 (10.4%)	
	Every 6 months	3 (1.6%)	3 (1.6%)	6 (3.3%)	
	Once a year	2 (1.1%)	0 (0.0%)	2 (1.1%)	
Total		77 (42.3%)	105 (57.7%)	182 (100.0%)	
Self-measurement of blood pressure	Yes	30 (16.3%)	42 (22.8%)	72 (39.1%)	X^2=2.71 p=0.258
	No	47 (25.5%)	63 (34.2%)	110 (59.8%)	
	No response	2 (1.1%)	0 (0.0%)	2 (1.1%)	
Total		79 (42.9%)	105 (57.1%)	184 (100.0%)	

Table 1 shows the response of the participants when asked about the diagnosis of hypertension, and their attitudes towards treatment and follow-up. During a routine visit to the doctor, a significantly higher rate of hypertension was diagnosed in men (25.5%) than women (20.7%), on the other hand, the percentage of women (17.4%) was higher than men (14.1%) at the beginning of the accident ($p < 0.000$). Most of the participants (96.2%) said that they took their medications regularly after the diagnosis of hypertension and there was no significant difference in response between the two genders. Most of the participants (85.2%) responded positively at monthly doctor visits. When asked to measure blood pressure at home for follow-up purposes, both males (25.5%) and females (34.2%) responded negatively.

Table 2 Association of quality of life with multifactorial socio-clinical covariates

Variables details	Gender	Quality of life				Total	p-value
		Poor	Neutral	Good	Excellent		
Experience a normal enjoyable life	Males	10 (5.4%)	13 (7.1%)	29 (15.8%)	27 (14.7%)	79 (42.9%)	X^2=21.7, p<0.001
	Females	1 (0.5%)	6 (3.3%)	35 (19.0%)	63 (34.2%)	105 (57.1%)	
Ability to concentrate on daily activities	Males	8 (4.3%)	19 (10.3%)	25 (13.6%)	27 (14.7%)	79 (42.9%)	X^2=12.7, p=0.005
	Females	2 (1.1%)	12 (6.5%)	48 (26.1%)	43 (23.4%)	105 (57.1%)	
Daily sleep routine	Males	5 (2.7%)	30 (16.3%)	22 (12.0%)	22 (12.0%)	79 (42.9%)	X^2=9.98, p=0.015
	Females	0 (0.0%)	30 (16.3%)	42 (22.8%)	33 (17.9%)	105 (57.0%)	
Capacity for daily routine work	Males	9 (4.9%)	18 (9.8%)	25 (13.6%)	27 (14.7%)	79 (42.9%)	X^2=2.79, p=0.425
	Females	12 (6.5%)	25 (13.6%)	43 (23.4%)	25 (13.6%)	105 (57.1%)	
Able to feel healthy and fit	Males	6 (3.3%)	24 (13.0%)	30 (16.3%)	19 (10.3%)	79 (42.9%)	X^2=4.97, p=0.174
	Females	4 (2.2%)	21 (11.4%)	54 (29.3%)	26 (14.1%)	105 (57.1%)	
Quality of life on a daily basis	Males	5 (2.7%)	27 (14.8%)	37 (20.2%)	9 (4.9%)	78 (42.6%)	X^2=28.69, p<0.001
	Females	1 (0.5%)	18 (9.8%)	37 (20.2%)	49 (26.8%)	105 (57.4%)	

Table 2 shows the relationship of factors with the quality of life of participants with hypertension. Female participants (34.2%) said that they lived a normal and pleasant life significantly (p <0.000) more than men (14.7%).

Table 3 Distribution of persistent clinical symptoms on a daily frequency

Variables details	Gender	Age group in years (positive responses)				Total	p-value
		35-44	45-54	55-64	>65		
Blurred vision	Male	1 (1.3%)	8 (10.1)	4 (5.1%)	13 (16.5%)	26 (32.9%)	0.625
	Female	2 (19.5)	5 (4.8%)	14 (13.5%)	6 (5.8%)	27 (26.0%)	0.292
Chest pain	Male	0 (0.0%)	1 (1.3%)	1 (1.3%)	6 (7.6%)	8 (10.1%)	0.427
	Female	0 (0.0%)	4 (3.8%)	3 (2.9%)	3 (2.9%)	10 (9.6%)	0.388
Fainting episodes	Male	1 (1.3%)	2 (2.5%)	3 (3.8%)	16 (20.3%)	22 (27.8%)	0.024
	Female	2 (1.9%)	10 (9.6%)	16 (15.4%)	3 (2.9%)	31 (29.8%)	0.754
Headache	Male	1 (1.3%)	13 (16.5%)	10 (12.7%)	24 (30.4%)	48 (60.8%)	0.263
	Female	4 (3.8%)	19 (18.3%)	16 (15.4%)	8 (7.7%)	47 (45.2%)	0.214
Palpitation	Male	1 (1.3%)	6 (7.6%)	2 (2.5%)	8 (10.1%)	17 (21.5%)	0.668
	Female	1 (1.0%)	3 (2.9%)	3 (2.9%)	2 (1.9%)	9 (8.7%)	0.828

Table 3 lists all responses for persistent clinical symptoms that hypertensive patients may experience on a daily basis. It shows only the positive responses given by the participants and shows the distribution by classification by age group.

Table 4 Distribution of associated chronic illnesses/disorders with the quality of life

Variables			Diabetes Mellitus			Total
			Yes	No	No response	
Quality of Life	Poor	Males	3 (3.8%)	2 (2.5%)	0 (0.0%)	5 (6.3%)
		Females	0 (0.0%)	1 (1.0%)	0 (0.0%)	1 (1.0%)
	Neutral	Males	18 (22.8%)	9 (11.4%)	1 (1.3%)	28 (35.4%)
		Females	7 (6.7%)	11 (10.5%)	0 (0.0%)	18 (17.1%)
	Good	Males	21 (26.6%)	15 (19.0%)	1 (1.3%)	37 (46.8%)
		Females	10 (9.5%)	27 (25.7%)	0 (0.0%)	37 (35.2%)
	Excellent	Males	2 (2.5%)	7 (8.9%)	0 (0.0%)	9 (11.4%)
		Females	21 (20.0%)	28 (26.7%)	0 (0.0%)	49 (46.7%)
Total		Males	44 (55.7%)	33 (41.8%)	2 (2.5%)	79 (100.0%)
		Females	38 (36.2%)	67 (63.8%)	0 (0.0%)	105 (100.0%)
			Dyslipidaemia			Total
			Yes	No	No response	
	Poor	Males	3 (3.8%)	2 (2.5%)	0 (0.0%)	5 (6.3%)
		Females	0 (0.0%)	1 (1.0%)	0 (0.0%)	1 (1.0%)
	Neutral	Males	12 (15.2%)	15 (19.0%)	1 (1.3%)	28 (35.4%)
		Females	7 (6.7%)	11 (10.5%)	0 (0.0%)	18 (17.1%)
	Good	Males	20 (25.3%)	16 (20.3%)	1 (1.3%)	37 (46.8%)
		Females	12 (11.4%)	25 (23.8%)	0 (0.0%)	37 (35.2%)
	Excellent	Males	2 (2.5%)	7 (8.9%)	0 (0.0%)	9 (11.4%)
		Females	5 (4.8%)	44 (41.9%)	0 (0.0%)	49 (46.7%)
Total		Males	37 (46.8%)	40 (50.6%)	2 (2.5%)	79 (100.0%)
		Females	24 (22.9%)	81 (77.1%)	0 (0.0%)	105 (100.0%)
			Chronic Respiratory Illnesses			Total
			Yes	No	No response	
Quality of Life	Poor	Males	0 (0.0%)	5 (6.3%)	0 (0.0%)	5 (6.3%)
		Females	0 (0.0%)	1 (1.0%)	0 (0.0%)	1 (1.0%)
	Neutral	Males	3 (3.8%)	24 (30.4%)	1 (1.3%)	28 (35.4%)
		Females	5 (4.8%)	13 (12.4%)	0 (0.0%)	18 (17.1%)
	Good	Males	2 (2.5%)	34 (43.0%)	1 (1.3%)	37 (46.8%)
		Females	3 (2.9%)	34 (32.4%)	0 (0.0%)	37 (35.2%)
	Excellent	Males	0 (0.0%)	9 (11.4%)	0 (0.0%)	9 (11.4%)
		Females	3 (2.9%)	46 (43.8%)	0 (0.0%)	49 (46.7%)
Total		Males	5 (6.3%)	72 (91.1%)	2 (2.5%)	79 (100.0%)
		Females	11 (10.5%)	94 (89.5%)	0 (0.0%)	105 (100.0%)

Table 4 shows the relationship of chronic diseases with quality of life. The presence of diabetes mellitus together with hypertension shows that women (29.5%) have a much better quality of life than men (28.6%), but it is not statistically significant.

DISCUSSION:

In this study, we found that more women (34.2%) than men (14.7%) had a statistically significant (2 = 21.7, p <0.001) normal pleasant life. In contrast, a recent meta-analysis and systematic review study found that health-related quality of life was lower among hypertensive patients than in the normal population[11]. Female patients (23.4%) gave better results than their male colleagues (14.7%) in their ability to concentrate on daily activities ($\chi 2$ = 12.7, p = 0.005). Female patients also had better sleep quality (7-8 hours) than male patients (2 = 9.98, p = 0.015)[12]. A study of sleep duration found that most participants with hypertension had difficulty sleeping for an average of more than 6 hours [19]. Overall, a significant majority of the women who participated stated that their quality of life was excellent compared to men (2 = 28.69, p <0.001). This is in contrast to a study conducted in Pakistan that showed a decreased quality of life in those with chronic diseases such as hypertension and diabetes. This study showed that among hypertensive patients, the daily routine working capacity was poor compared to 6.5% (4.9%) of those surveyed[13]. However, more men (3.3%) think that they are not healthy and fit compared to women (2.2%). Overall, a large number of women (26.8%) agreed to have an excellent quality of life on a daily basis, which was significantly more (p <0.001) than men (4.9%). Similar studies have shown that the hypertensive population is less able to feel fit or perform routine work[14].

Few studies in Pakistan have compared symptoms of discomfort in treated hypertensive patients, and this study shows that complaints such as blurred vision, chest pain, and fainting attacks are more common in patients over 65 years of age. Fainting episodes were significantly higher in men older than 65 years than in those under 65 (p less than 0.024). Headache attacks were also an important complaint in patients aged 45-54, 55-64, and over 65. In general, patients in the younger age group experienced minor symptomatic episodes compared to older ones[15]. Some articles show that symptoms persist among incompatible patients, while other studies rule out any association between headache and hypertension, suggesting that there may be self-awareness of disease morbidity that causes the disease. development of complaints.

CONCLUSION:

Health-related quality of life is an ongoing event in which a person may feel better or worse depending on the treatment they receive when diagnosed with a chronic health disorder. First, this study evaluates the quality of life of hypertensive patients, but because it is a cross-sectional study, it is difficult to show any temporal link between symptoms or quality of life and hypertension. Of course, the study shows that most women are doing pretty well and adapt to their health with regular treatment and follow-up as long as they comply. A longitudinal study is needed to explore the transition from an early comfort zone to a life full of symptoms in later stages that may occur due to the long-term drug therapy patients receive.

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