

A cross sectional study to assess the quality of life and self-care practices amongst adult hypertensive population in an urban area

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ABSTRACT

Background: Hypertension also called as high BP is the condition of increased pressure in the blood vessels. It is very common but can also be chronic if treatment is not provided over time. Hypertension can alter the QOL of the patients and causes many associated diseases. The goal of this study is to analyze the QOL and self care practices amongst the adult hypertensive population in an urban area.

Materials and methods: Hypertensive individuals with more than 18 years affected with hypertension were selected for the study. Assessment about the patient's health related quality of life (HRQOL) and self care practices for hypertension were conducted by professional interviewers. SPSS 20 was used for collecting and analyzing the data.

Results: A number of 161 patients with hypertension were observed in the study. The correlation between the individual quality of life and self-care behavior was found to be ($r = -0.038$, $P < 0.5$) and the obtained scores were non-significant.

Conclusion: There was no relationship between self care behavior and HRQOL with hypertension. Personal medication and physical activity had positive adherence with self care behavior and there was a negative relationship between smoking and HRQOL.

Keywords: Hypertension, self care behavior, quality of life, medication

INTRODUCTION

Hypertension also called as high BP is the condition of increased pressure in the blood vessels. It is very common but can also be chronic if treatment is not provided over time [1]. Hypertension can alter the QOL of the patients and causes many associated diseases. It is detected when the diastolic pressure is above 90 mmHg, and the systolic pressure is above 140 mmHg for usually a longer period of time. Globally hypertension is termed as a major health problem [2, 3].

Survey has shown that about 27% of adults globally have been affected by hypertension in 2000 which will tend to increase by 32% in 2025 [4]. Long term hypertension may lead to

many other health complications like cardiac disorders and is a predominant cause of mortality [5]. In accordance to WHO nearly 85% of the mortality due to hypertension and its associated complications occurs in almost every country of the world [6].

Hypertension can be managed through pharmacological and non-pharmacological means in order to prevent the health risks and quality of the patient's life [7]. Long term diseases like hypertension does not kill an individual but damages the health outcome and management of their life [8].

HRQOL is a tool to measure disease management and making of health policy. It consists of six knowledge of activities like assessment of psychological and physical health, independence levels, socio economic relationships, individual religious beliefs and living environment [9]. The concept of HRQOL is based on the relationship of the individuals to the community and their cultural activities. HRQOL in hypertensive patients is dependent on factors like BMI, age, gender, smoking, glucose intolerance and organ damage.

Self care behavior is termed as any measure to protect oneself from disease in order to maintain good health, proper nutrition and appropriate lifestyle including psychological and socioeconomic health [10]. It is proven that self care in hypertensive patients will decrease the outcome of hypertension and its associated complications. Examples of self care include correct use of medications, exercise, weight management and good nutrition. The goal of the study is to analyze the QOL and self care practices amongst the adult hypertensive population in an urban area.

MATERIALS AND METHODS

It was a cross sectional study conducted amongst the adult hypertensive patients in an urban area of India. The study consisted of 161 patients with hypertension with age more than 18 years and was on diagnosis for 3 months. The patients were observed using a random sampling method.

The required information's were obtained using questionnaires from trained interviewers and the average time taken was about 30 minutes. It was divided into 5 parts: HRQOL instruments, socio-demographic, clinical factors and according to hypertension with self-care. Each part of the questionnaire is ranked to a score of 0-100 where the lowest score of 0 denotes highest disability or worst quality of life and the maximum score of 100 denotes no disability or a high QOL. The obtained data were analyzed and entered in the SPSS 20 tool and the data were organized using frequency distribution. The quality of life was affected by various factors, and they were determined by multiple linear regression.

RESULTS

Among the 161 patients over half the population that is about 55% were males and the remaining 45% of the population were females. Nearly 80% of the selected patients were well educated and had knowledge about hypertension. Patients who had faced drug side effects showed very low physical component summary scores of about $b=-0.56$, 95% CI: -0.63 to -0.28 at the value of $P<0.001$. And hence the MLR for PCS was also low.

Self care behavior associated with hypertension had a great relationship with the physical component summary score of a value about $b=0.25$, 95% CI 0.17 to 0.33 at $P<0.001$. On the basis of the nature of the participant’s occupation, the physical component summary score was considerably low in farmers when compared to the people working as a government officer and the values are $b=-0.50$, 95% CI: -0.68 to -0.33 at $P <0.01$. Also, the physical component summary score was lower in people associated with multiple diseases at the same time the values were $b=-0.19$, 95% CI: -0.37 to -0.21 at $P <0.5$. As for sex of the patients the physical component summary score was low in females when compared to males with the value of $b=-0.15$, 95% CI: -0.31 to -0.18. All these data are listed in [Table 1].

Table 1: MLR Model showing related factors with PCS Scale among the patients

PCS score	Unstandardized Coefficients	Beta	Sig.	Lower Bound	Upper Bound
Constants	0.69	-	0	0.52	0.96
Drug side effect	-0.56	-0.22	0	-0.73	-0.48
Absence of drug side effects	-	-	-	-	-
Hypertension self-care practice	0.25	0.25	0	0.17	0.43
Farmer	-0.5	-0.18	0	-0.68	-0.43
Government officer	-	-	-	-	-
Presence of co morbidity	-0.19	-0.23	0.02	-0.37	-0.11
Absence of co morbidity	-	-	-	-	-
Female	-0.15	-0.22	0.03	-0.31	-0.08
Male	-	-	-	-	-

Self care behavior with hypertension has a strong relationship with a high level of mental component summary score and the value was about $b=0.28$, 95% CI 0.20 to 0.37 and $P<0.001$. The patients with complications were observed with a low mental component summary score and the value was about $b=-0.37$, 95% CI: -0.56 to -0.18 and $P<0.001$. Patients with multiple associated diseases at the same time were observed with a low mental component summary score and the values were $b=-0.26$, 95% CI: -0.46 to -0.27 at $P<0.01$. On the basis of the nature of the participant’s occupation, the mental component summary score was considerably low in farmers when compared to the people working as a government officer and the values are $b=-0.29$, 95% CI: -0.48 to -0.10 at $P<0.01$. As for sex of the patients the values were similar to PCS score and so lower MCS score was observed in females when compared to males with the value of $b=-0.15$, 95% CI: -0.33 to -0.17. All these data are listed in [Table 2]. This study analyses the appropriate factors affecting both the PCS and MCS scores.

Table 2: MLR Model showing related factors for MCS Scale among the patients

MCS score	Unstandardized Coefficients	Beta	Sig.	Lower Bound	Upper Bound
Constants	0.59	-	0	0.41	0.77
Hypertension self-care practice	0.28	0.28	0	0.2	0.37
Presence of Complication	-0.37	-0.13	0	-0.57	-0.18
Absence of complication	-	-	-	-	-
Presence of co morbidity	-0.26	-0.27	0	-0.46	-0.27
Absence of co morbidity	-	-	-	-	-
Farmer	-0.29	-0.28	0	-0.48	-0.1
Government officer	-	-	-	-	-
Female	-0.15	-0.23	0.15	-0.33	-0.17
Male	-	-	-	-	-

DISCUSSION

This study has featured the structure and affecting factors of HRQOL in a population with hypertension. The obtained results in this study coincide with the findings of many other studies as well. As of the findings with the sex of the patients, females were observed to have low physical and MCS and HRQOL this is as same as the findings of the study conducted in Palestine [11] stating that the females were observed with low health and QOL when compared to men [12, 13]. Low physical component summary scores are observed in patients with drug effects, farmers, females, and people with multiple diseases at same time whereas better self care behavior with hypertension is associated with high PCS scores.

Low MCS scores are observed in patients having complications, farmers, females and people with multiple diseases at same time whereas better self care behavior with hypertension is associated with high mental component summary scores.

The structure of the mean score of 8 knowledge of activity of HRQOL analyzed that their importance was above average. Factors like sex, age, nature of occupation, complications and multiple diseases at same time are highly related with physical and MCS and HRQOL in hypertensive patients [14, 15].

Finally, this study showed that the mean score of QOL in hypertensive patients was only average and recommendations and further studies are to be done to consider the important factors of HRQOL.

CONCLUSION

This study has analyzed that the 8 knowledge of activities of the mean score of HRQOL was average. In association with this study, PCS, MCS and HRQOL has a relationship with other factors like age, sex, nature of occupation, clinical factors, associated complications and any drug effects.

To conclude TQOL model farmers, females, complications and multiple diseases at same time were related to low scores whereas better self care behavior with hypertension were associated with high score of TQOL.

In order to give appropriate medical care and to facilitate the QOL of the patients, the physicians are advised to check the HRQOL of the hypertensive patients coming for long term illness and also proper lifestyle and good diet must be recommended.

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