

Effect of Patient Counselling of Hypertension Patient along with Comorbidities Type 2 Diabetes Mellitus about Dietary Control & Lifestyle Modification

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Abstract: *Hypertension and Diabetes mellitus is a common chronic disease now-a-day. They are the silent killer disease which destroy the organs slowly in our body. For preventing the side effects the counselling regarding the disease and drugs should also be in the proper manner. The paper shows the impact of patient counselling on the patients after severe days.*

Keywords: Hypertension, Comorbidities, Counselling, impact

1. Introduction

Common conditions like diabetes mellitus and hypertension coexist more frequently than would be expected by chance alone. Diabetes-related hypertension significantly raises the risk of heart disease, peripheral vascular disease, stroke, retinopathy, and nephropathy and hastens their progression. There is still a lack of knowledge regarding the factors that significantly raise the prevalence of hypertension in diabetics. [1]

Comorbid conditions including depression, obesity, and hypertension are common among individuals with type 2 diabetes and are often experienced by patients with this disease. Hypertension is the most prevalent comorbidity linked to type 2 diabetes [2] Mainly under control, diabetes mellitus (DM) and hypertension (HTN) increase the risk of heart, cerebrovascular, and kidney disorders. And among patients, both of these are quite common co-morbidities. [3]

Patient education regarding the management of diabetes mellitus encompasses the use of medications, risk factors linked to the disease, and lifestyle changes that are crucial in medication treatment for those with diabetes. Sufficient patient education regarding their illnesses, related problems, and medication administration can enhance self-care, which is an essential component of a successful treatment strategy. This will increase patient adherence to the regimen and reduce illness-related complications. Additionally, a patient's understanding of blood pressure (BP) in hypertension, blood glucose control in diabetes mellitus, and medication adherence are crucial for managing both hypertension and diabetes. One efficient way to increase patient adherence to their pharmaceutical regimen is through patient counselling. During counselling, patients are educated about illnesses and dietary changes and changes in lifestyle [4, 5]

Diabetes mellitus and hypertension are two chronic illnesses that have an impact on patients' quality of life. Knowledge about illnesses and medications encourages

individuals to lead healthy lifestyles that enhance their quality of life and health outcomes. [6, 7]

2. Materials and Methods

Methodology:

Study Design

This study enrolled hypertensive patients with or without comorbidities of Type 2 D. M to investigate patient medication knowledge and lifestyle modification on based on online survey via Google Forms after conducting counselling. The longitudinal observational where data on hypertensive and diabetic patients' knowledge regarding medication, disease states and lifestyle modification were collected from the study population at both urban and rural area.

Participants

A total of 105 patients were enrolled in the Study, but only 96 were able to complete the study.

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A Total of 110 Patients were enrolled in the study, but only 105 able to complete the study. Remaining 5 could not followed up due the technical difficulties. Patients are willing to give their informed consent for participating in survey.

Data Collection

Data will be questionnaire with both open and closed-ended questions using online survey develop via Google Forms.

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The questionnaire was developed in English language. Socio demographic parameters of patients such as Gender, Age, Smoking, Alcohol, Diet and Salt preference were included in questionnaire, based on knowledge, practice and attitude questions.

Time Period

Data were collected from January to March 2024 using Google forms. Data was collected till the March 2024 end.

Data Analysis

Data Analysis was done by using Microsoft Excel 2013. The responses from participants regarding the complications of hypertension and diabetes mellitus, lifestyle modifications, and medicines (names, strengths and duration) were classified using knowledge score

3. Result

Table 1: Distribution of Respond Regarding Age and Disease State

Age Group	Frequency	Percentage
21-30	13	12.3
31-40	35	33.3
41-50	27	25.7
51-60	25	23.8
61-70	5	4.7
TOTAL RESPONDS	105	100.0%
DISEASE	Frequency (n)	Percentage %
Hypertension	30	28.5
Diabetes Mellitus	27	25.7
Hypertension with Diabete mellitus	48	45.7
TOTAL RESPONDS	105	100.0%

Table 2: Distribution of Knowledge Before and After Counselling

Category	Before	Percentage %	After	Percentage %
	n=105		n=105	
Poor	30	28.5	7	6.6
Fair	31	29.5	10	9.5
Good	26	24.7	52	49.5
Excellent	18	17.1	46	43.8

Table 3: Distribution of Practice Before and After Counselling

Category	Before	Percentage %	After	Percentage %
	n=105		n=105	
Inadequate	15	14.2	5	4.7
Adequate	68	64.7	43	40.9
Good	22	20.9	57	54.2

Table 4: Distribution of Attitude Before and After Counselling

Category	Before	Percentage %	After	Percentage %
	n=105		n=105	
Positive	92	87.6	105	100
Negative	8	7.6	0	0
Neutral	5	4.7	0	0

Table 5: Empact Regarding Hypertension with Diabetes Mellitus After Counselling

Lifestyle modifications in hypertension with diabetes mellitus	N=105	
	Frequency (n)	Percentage (%)
Weight loss if obese	20	19.04
Reduce intake of fatty foods	102	97.1
Reduce alcohol consumption	52	49.5
Smoking cessation	35	33.3
Restrict salt intake	99	94.2
Physical exercise	85	80.9
Keeping stress under control	70	66.6
Intake of fruits and vegetables	92	87.6
Reduce sugar intake	60	57.1

4. Discussion

Our research basically studied the hypertensive patients and their comorbidities of diabetes mellitus knowledge, attitudes, and practices as well as the impact of patient education on the same. Patients who were younger than those who were older had a greater awareness of hypertension and its comorbidities with diabetes. For this reason, patients between the ages of 21 and 30 had a lower chance.

In order to attain appropriate blood pressure control and enhance their quality of life in relation to their health, hypertensive individuals need improved patient counselling and treatment. Pharmacists working in the healthcare industry are able to offer patient counselling as a means of intervention with the goal of reaching specific targets that would enhance the quality of life for patients in relation to their health. According to this study, patient counselling mediated by pharmacists improves a number of outcomes, including hypertension patients' knowledge of their condition, blood pressure control, and HRQoL.

We discovered that individuals between the ages of 31 and 40 had higher rates of diabetes mellitus and hypertension in our study. This could indicate that there is a link between the illness and social behaviours like drinking and smoking. A major factor in the sharp rise in the prevalence of hypertension is dietary and lifestyle modifications. Addition of more salt at the table is a custom in Indian cuisine, which calls for a high salt usage during preparation. Papads, chutneys, and pickles are high-salinity foods that are frequently consumed by about 55.6% of the study population. An increased risk of high blood pressure could result from this. Results from a different study showed similar conclusions. Reducing salt consumption can be the most economical way to lessen the burden of hypertension, as it is linked to an increased risk for the disease.

As there is increasing fade of the fatty foods or junk foods which are preserve by using preservatives should increase the disease state or there problems, our study state that after counselling regarding it patients responds very effective towards it (tableno.5). Furthermore, the majority of patients with diabetes and hypertension had insufficient information about lifestyle adjustments, according to knowledge ratings from our study. Contrary to what we found in our investigation, the majority of patients (67.3%) in a study by

Abd El-Hay et al. had a fair understanding of how to modify their lifestyles to control their hypertension. Due to inadequate patient counselling on lifestyle modifications, our study found that patients with hypertension and diabetes mellitus were not well-informed about how to manage their conditions. These lifestyle modifications include losing weight, reducing intake of fat and alcohol, exercising, managing stress, and increasing intake of fruits and vegetables. (8)

5. Conclusion

The study indicates that patients' quality of life is affected by hypertension and that education has a significant role in enhancing the effectiveness of medical treatment. Both rural and urban areas are experiencing an increase in the financial burden of hypertension in developing nations. Thus, appropriate education and awareness should be created in accordance with societal needs. Patient education regarding diabetes mellitus complications and hypertension is generally lacking. This is because the pharmacy staff often provide inadequate patient counselling, which leaves patients with limited knowledge about target blood pressure, dietary changes, and lifestyle modifications. Therefore, our research has shown that individuals with diabetes and hypertension are not receiving enough information regarding education, food, and lifestyle adjustment. Therefore, it is important to design counselling strategies to support patient counselling.

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