

Correlation of Patient Visits with Diabetes Mellitus and Hypertension and Patient Anxiety During Covid-19

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The COVID-19 pandemic has had a big effect on the use of primary healthcare services. For example, fewer people with degenerative diseases like diabetes mellitus and hypertension are going to see their doctors. People may be worried about getting COVID-19, which could make them less likely to go to their regular check-up appointments, especially at the Community Health Center (Puskesmas) level. This study seeks to examine the correlation between the frequency of visits by patients with hypertension and diabetes mellitus and their anxiety levels during the COVID-19 pandemic in the Sukorejo Community Health Center (Puskesmas) area of Blitar City. This research employed a quantitative correlational design utilizing a cross-sectional methodology. The study sample comprised 60 respondents, chosen via simple random sampling from the population of patients diagnosed with hypertension and diabetes mellitus. The Hamilton Rating Scale for Anxiety (HARS) questionnaire was utilized to assess anxiety levels, and a structured questionnaire was employed to gather information regarding patient visits. We used the Chi-Square test with a significance level of 0.05 to analyze the data. The findings indicated that a significant proportion of respondents (68.3%) did not frequently visit the Puskesmas during the COVID-19 pandemic. Most of the people who answered the question said they were not anxious (48.3%) or slightly anxious (28.3%). The chi-square test yielded a p-value of 0.364 ($p > 0.05$), signifying no significant correlation between patient visits and anxiety levels during the COVID-19 pandemic. It can be determined that anxiety levels were not a significant factor affecting the visits of patients with hypertension and diabetes mellitus during the COVID-19 pandemic. The results indicate the necessity for enhanced health education, familial support, and better accessibility and quality of healthcare services to promote compliance with regular visits by patients with degenerative diseases.

Keywords: COVID-19; Patient visits; Anxiety; Degenerative diseases; Community health centers.

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1. Introduction

Hypertension and diabetes mellitus (DM) are examples of degenerative diseases that are becoming more common around the world. They have a big effect on people's quality of life and productivity [1]. People call high blood pressure the "silent killer" because it often doesn't show any obvious signs at first, but it can cause serious problems if it isn't treated [2]. In the same way, a survey by the World Health Organization (WHO) in 2016 found that diabetes mellitus affects 9% of adults worldwide and is expected to be the seventh leading cause of death by 2030, with the number of people who have it rising quickly, even in Indonesia [3]. The 2013 Basic Health Research (Riskesdas) data also showed that a lot of people in Indonesia have diabetes, making it one of the countries with the most people with the disease [4]. Regular visits to health facilities for monitoring, treatment, and education are very important for managing these two long-term illnesses. This is to stop the diseases from getting worse and causing more problems [5]. But in late 2019, the Coronavirus Disease 2019 (COVID-19) pandemic hit the world, creating a new global health crisis. The SARS-CoV-2 virus causes COVID-19, which can cause mild to severe symptoms, including acute respiratory distress that can be deadly [6]. The virus spread quickly and widely, both through

respiratory droplets and contact with contaminated surfaces. This caused a lot of anxiety and uncertainty in the community [7]. Social restrictions and lockdowns were put in place to stop the spread of the virus. These changed how people acted and how they could get medical care [8]. Fear of getting the virus in healthcare settings became a big problem, especially for people who are already sick, like those with degenerative diseases, who should have been getting regular check-ups but may have been too scared to go [9].

As seen at the Sukorejo Community Health Center in Blitar City, the pandemic had a big effect on healthcare services at the local level. A preliminary study of the medical records at the Sukorejo Community Health Center found that visits from degenerative patients (those with high blood pressure and diabetes) dropped sharply during the COVID-19 pandemic. In 2021, the average number of visits was only about 37 people per month. This is a big drop from the average of 76 people per month before the pandemic in 2020. This drop makes us wonder what caused it. To obtain an initial comprehension, researchers interviewed 15 patients with degenerative diseases at the Sukorejo Community Health Center. The interviews showed that 90% of patients were worried about going to the doctor during the COVID-19 pandemic, either moderately, severely, or very severely. This shows that they were very worried about getting the virus.

Researchers noted a suspected link between the drop in visits from patients with degenerative diseases and the high levels of anxiety during the COVID-19 pandemic. Even though a lot of work has been done to respond to COVID-19, the possible psychological and behavioral effects of not getting regular medical care are still a big worry [10]. It is essential to comprehend this relationship to develop effective intervention strategies that guarantee continuous care for patients with degenerative diseases [11]. This study was designed to quantitatively assess the correlation between the visits of patients with degenerative hypertension and diabetes mellitus and their levels of anxiety during the COVID-19 pandemic at the Sukorejo Community Health Center, Blitar City.

2. Literature Review and Problem Statement

Literature Review : Hypertension and diabetes mellitus (DM) are examples of degenerative diseases that are long-term conditions that make life less enjoyable and less productive [12]. These diseases tend to get worse as people get older. The World Health Organization (WHO) says that in 2014, 9% of adults over 18 had diabetes [13]. By 2030, it is expected to be the seventh leading cause of death, and the number of people with diabetes in Indonesia is expected to rise significantly [14]. People often call high blood pressure a "silent killer" because its symptoms aren't always clear. However, if it's not treated, it can cause serious problems. To avoid problems, both diseases need to be managed and watched over on a regular basis, such as by going to health care facilities [15].

In the middle of all this, the COVID-19 pandemic has become a new global health issue that makes people anxious and unsure. People are very worried about the SARS-CoV-2 virus, which causes COVID-19, because it can cause severe respiratory symptoms and even death [16]. It spreads easily through droplets. A preliminary study at the Sukorejo Community Health Center in Blitar City in 2021 found that visits by people with degenerative diseases (high blood pressure and diabetes) dropped sharply from an average of 76 per month before the pandemic to about 37 per month during the pandemic. Preliminary interviews with degenerative disease patients support this finding. They showed that 90% of them felt anxious about going to healthcare facilities during the COVID-19 pandemic. It is thought that this anxiety, whether mild, moderate, or very severe, is keeping patients from going to regular check-ups.

Problem Statement : Given this context, there are signs that patient anxiety during the COVID-19 pandemic is linked to how often they go to healthcare facilities for degenerative diseases [17]. This substantial decline

in visits, coupled with elevated anxiety levels among patients, prompts essential inquiries into the determinants affecting healthcare-seeking behavior amid this global health crisis [18]. Consequently, this study examines the relationship between visits by patients with degenerative hypertension and diabetes mellitus and the level of patient anxiety during the COVID-19 pandemic at the Sukorejo Community Health Center, Blitar City.

3. Method

This quantitative study, employing a correlational and cross-sectional design [19], seeks to examine the relationship between the visits of degenerative patients (specifically those with hypertension and diabetes mellitus) and their anxiety levels during the COVID-19 pandemic. There were 600 patients at the Sukorejo Community Health Center in Blitar City, and 60 of them were chosen at random. In May and June of 2025, data were collected using a questionnaire that measured anxiety levels (independent variable, ordinal scale) and patient visits (dependent variable, nominal scale). The chi-square test was then used to analyze the data, keeping in mind research ethics like informed consent, anonymity, and confidentiality.

4. Results and Discussion

Results

This study involved 60 patients with degenerative diseases (hypertension and diabetes mellitus) at the Sukorejo Community Health Center (UPT) in Blitar City, conducted from June to July 2025. Tables 4.1 and 4.2 show the age and gender of the people who answered the questions.

Table 4.1 Respondent Characteristics Based on Age at the Sukorejo District Health Center UPT

No	Age	Frequency	Percentage (%)
1	46 – 59 Th	25	42%
2	>59 Th	35	58%
	Amount	60	100%

Source: Primary Data

Based on Table 4.1, the majority of respondents are in the elderly age group, namely 58% of respondents are aged >59 years, while 42% of respondents are aged 46-59 years..

Table 4.2 Respondent Characteristics Based on Gender at the Sukorejo District Health Center UPT

No	Gender	Frequency	Percentage (%)
1	Man	20	15,7%
2	Woman	40	84,3%
	Amount	60	100%

Source: Primary Data

Table 4.2 shows that the majority of respondents were female (84.3%), with 15.7% being male. The distribution of patient visit variables and patient anxiety levels is presented in Tables 4.3 and 4.4.

Table 4.3 Distribution of Visits of Hypertension and Diabetes Mellitus Patients at the Sub-district Health Center UPT Sukorejo

No	Patient Visit	Frequency	Percentage (%)
1	Present	19	31,7%
2	Not present	41	68,3%
	Amount	60	100%

Source: Primary Data

Table 4.3 shows that most of the people who answered (68.3%) did not go to the Community Health Center on a regular basis, but 31.7% did.

Table 4.4 Distribution of Anxiety Levels of Hypertension and Diabetes Mellitus Patients During the Covid-19 Pandemic at the Sukorejo District Community Health Center UPT

No	Anxiety Level	Frequency	Percentage (%)
1	No Worries	29	48,3%
2	Mild Anxiety	17	28,3%
3	Moderate Anxiety	2	3,3%
4	Severe Anxiety	11	18,3%
5	Panic	1	1,7%
	Amount	60	100%

Source: Primary Data

According to Table 4.4, nearly half of those who answered (48.3%) were not anxious. The next highest group was those who were mildly anxious (28.3%), then those who were severely anxious (18.3%), moderately anxious (3.3%), and panicked (1.7%). The Pearson Chi-Square test was used to do a correlation analysis to test the hypothesis. Table 4.5 shows the results of the statistical tests.

Table 4.5 Chi-Square Table of the Relationship between Visits of Hypertension and Diabetes Mellitus Patients and Anxiety Levels During the Covid-19 Pandemic at the Sukorejo Community Health Center,

	Value	df	Asymp Sig. (2-sided)
Pearson Chi-Square	4.327 ^a	4	.364
Likelihood Ratio	4.519	4	.340
Linear-by-Linear Association	.022	1	.883
N of Valid Cases	60		

The p-value for Pearson Chi-Square is 0.364, as shown in Table 4.5. The null hypothesis (Ho) is accepted and the alternative hypothesis (H1) is rejected because the p-value (0.364) is higher than the significance level (0.05). This indicates that there is no substantial correlation between visits by patients with degenerative hypertension and diabetes mellitus and their anxiety levels during the COVID-19 pandemic at the Sukorejo Community Health Center, Blitar City.

Discussion

The findings of this study indicated that patient anxiety levels during the COVID-19 pandemic did not exhibit a significant correlation with their decisions to attend routine visits for degenerative diseases (hypertension and diabetes mellitus) at the Sukorejo Community Health Center in Blitar City. This finding is significant given that initial studies revealed a substantial reduction in visits during the pandemic and elevated anxiety levels among certain patients (90% of those initially surveyed reported feeling anxious). But the results of the statistical tests showed that anxiety was not the main factor that affected how often patients visited.

This interpretation is corroborated by the anxiety level distribution (Table 4.4), indicating that nearly half of the respondents (48.3%) reported experiencing no anxiety whatsoever concerning visits during the pandemic. Even though some people felt mild to severe anxiety, the percentage wasn't high enough to show a statistically significant link to visit decisions. This could be because the community or patients with degenerative diseases at the Sukorejo Community Health Center in Blitar City no longer feel too much anxiety or worry about COVID-19. This could be because the region has done a good job of managing the pandemic. People in the community feel safe because the local government and the COVID-19 task force

are so dedicated to their work. This lets them go about their normal lives, including getting medical care. Consequently, any anxiety experienced by these individuals is presumably managed and does not hinder their pursuit of treatment.

The findings of this study corroborate those of previous research, including [20], which indicated a reduction in patient attendance at community health centers during the pandemic. This study elucidated that additional factors, including educational attainment, accessibility, and medical services, were significantly correlated with healthcare utilization. [21] similarly discovered that adherence to treatment among hypertension patients during the pandemic was more significantly affected by family support, employment status, and affordability, rather than anxiety. This indicates that despite the reduction in patient visits (Table 4.3 indicates a 68.3% no-show rate), the fundamental cause of this decline may be attributed to factors beyond patient anxiety, as elucidated in prior research. In other words, patients might not be going because they are worried about COVID-19, but for other reasons that don't have anything to do with how anxious they are.

5. Conclusion

This study sought to examine the correlation between the frequency of visits by patients with hypertension and diabetes mellitus and their anxiety levels during the COVID-19 pandemic at the Sukorejo Community Health Center in Blitar City. The Pearson Chi-Square statistical test yielded a p-value of 0.364, exceeding the significance threshold of 0.05. Consequently, it can be inferred that there is no substantial correlation between the regular visits of degenerative disease patients and their anxiety levels during the pandemic at the study site. Even though fewer people came in and some patients felt more anxious, this anxiety was not the main reason they decided to get treatment.

These results suggest that, within the framework of the Sukorejo Community Health Center, efficient local pandemic management has probably mitigated heightened anxiety within the community, rendering personal anxiety no longer a significant obstacle for patients seeking healthcare. The decline in patient visits during the pandemic is likely attributable to various factors, including family support, employment status, or service accessibility, rather than exclusively to anxiety associated with COVID-19. Consequently, strategies to augment visits for degenerative patients must take into account factors beyond pandemic anxiety.

While the results of this study show that there is no significant link between the frequency of visits by patients with hypertension and diabetes mellitus and their level of anxiety during the COVID-19 pandemic, these findings need to be interpreted with a few limitations in mind. This study was conducted at a single healthcare facility (Puskesmas Sukorejo), the results may not be generalizable to other regions with differing patient characteristics, policies, and socioeconomic conditions. In addition, measuring anxiety at a specific time may not be able to capture the changes in the patient's psychological condition that are always happening during the pandemic. For this reason, it is suggested that future research employ a longitudinal design, expand the research locations, and incorporate additional variables such as social support, risk perception, service quality, transportation barriers, economic conditions, and therapy compliance. A qualitative study is also needed to gain a deeper understanding of why patients delay or continue to attend their regular checkups. This way, strategies for improving services for patients with degenerative diseases can be planned to be more effective and last longer in the future.

6. Referensi

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