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Correlationship of Educational Level of Patients with Congestive Cardiac Failure and Compliance to Diet and Activity Control Regimes.

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ABSTRACT

The purpose of this study was to determine how patients' educational attainment in Anambra State relates to their adherence to activity and nutrition regimens for congestive heart failure. Using a non-experimental description design, the investigation was conducted. The study's target population consists of patients or clients with congestive heart failure who were registered and receiving medical care in Anambra State's tertiary health institutions between the ages of 58 and 65, as well as healthcare professionals such as physicians, nurses, and midwives, as well as patient relatives.regarding procedure and sampling,

The study's sample is taken from Chukwuemeka Odumegwu Ojukwu University Teaching Hospital in Awka, Anambra State, because the COVID-19 pandemic caused limitations on travel and movement. The hospital chosen is Chukwuemeka Odumegwu Ojukwu University Teaching Hospital, which doubles as a research center.This study used interview techniques and a multiple-choice questionnaire as its tool for gathering data. These techniques are employed in order to gather the required data. The administered questionnaire comprised five research questions, twenty questions, and the respondents' personal information. To obtain the required information, the researcher kept up a positive rapport. Interviews were conducted with interviewers as well.

To get at a conclusion, a hypothesis was created and put to the test utilizing chi-square in the analysis sample % average, and questionnaires were sent out. After the data was analyzed, it was discovered that patients in Anambra State who had congestive heart failure also had higher levels of education and adhered to strict dietary and exercise regimens. A random sample of 300 respondents was chosen for the study, and interviews were also held. As a result, the study suggests providing these individuals with ongoing health education regarding the research designs.

INTRODUCTION

Congestive heart failure (CHF) is characterized as "a complex clinical syndrome that results from any structural or functional impairment of ventricular filling or ejection of blood," according to the American College of Cardiology (ACC) and the American Heart Association (AHA). [1]. The primary cause of CHF and the main cause of death globally is ischemic heart disease. Globally, CHF is a prevalent condition with a high rate of morbidity and mortality. With an estimated 26 million cases globally, CHF lowers functional capacity, raises healthcare expenses, and has a major negative impact on quality of life. To reduce morbidity and mortality, avoid repeat hospital stays, and improve patient outcomes, the disease must be identified and treated appropriately [2].

Heart failure's (HF) etiology is broad and diverse. Regardless of the underlying etiology, the overall therapy strives to stabilize hemodynamic state and relieve systemic and pulmonary congestion. A comprehensive strategy including patient education, optimal medication delivery, and reducing acute exacerbations is needed to treat heart failure (HF) [3].Congestive Cardiac Failure (CCF) is characterized by a heart that beats less efficiently than usual, not that it has ceased beating altogether. Blood flows through the body and heart more slowly for a variety of potential reasons, which raises heart pressure [4].

The heart is unable to pump enough oxygen and nutrients to meet the body's needs because of the aforementioned factors. In response, the heart's chambers may stiffen and thicken or expand to accommodate more blood to pump throughout the body. Although the heart's muscle walls may eventually weaken and lose their ability to pump blood as effectively, this helps to keep the blood flowing. The body may respond by retaining fluid (water) and salt as a result of the kidneys' reaction.The body becomes congested if fluid accumulates in the limbs, legs, ankles, feet, lungs, or other organs [5]. This disease is known as congestive heart failure.

According to a report, the phrase "congestive cardiac failure" is imprecise when referring to the condition that arises when the heart is unable to sustain a sufficient cardiac output or can do so only at the cost of an elevated filling pressure.They went on to say that, in its mildest form, cardiac output is sufficient while at rest and only becomes insufficient when the metabolic requirement rises during physical activity or other types of stress [5].It states that in order to improve the management of their condition, patients with congestive cardiac failure should be educated on a variety of non-pharmacological measures. These include losing weight, engaging in moderate physical activity when symptoms are mild or bed rest when symptoms are severe, and changing their diet because obesity is a risk factor for cardiac failure [6].

The degree to which a person follows a diet, exercises regularly, and makes lifestyle adjustments in accordance with a therapeutic prescription is known as compliance. Conformity is a broad concept that involves both adherence and concordance. The degree to which a patient's conduct complies with a health care provider's agreed-upon recommendations is known as compliance [7].The symptoms of congestive heart failure can develop due to non-compliance with medication and diet, which can often result in hospitalization.Congestive heart failures are a major health concern for the general public as well as for patients and their families [8].

The symptoms of congestive heart failure include an accelerated heartbeat, edema (swelling), and evidence of venous congestion, which lead to exhaustion. Breathlessness is a common symptom of left ventricular (LV) failure that tends to get worse with time [9].

The successful management of congestive heart failure is largely dependent on rigorous adherence to diet and activity restriction regimes, which are an essential and substantial part of the condition's therapy [10].

In secondary/general hospitals and teaching hospitals in Anambra State, it is crucial to evaluate the degree of adherence to dietary and exercise regimes among patients with congestive heart failure based on their educational backgrounds.

MATERIALS AND METHODS

RESEARCH DESIGN

The investigation of food and activity control regimens, as well as compliance, among patients with congestive heart failure who have varying levels of education in public health institutions in Anambra State, is the exclusive focus of this study. Additionally, it is limited to the investigation of congestive heart failure and its health implications. Using a non-experimental description design, the investigation was conducted.

Research Setting

Research on the training of medical, nursing, and paramedical personnel is conducted at Chukwuemeka Odimegwu Ojukwu University Teaching Hospital (COOUTH), Awka, Anambra State. One of the largest departments at the hospital and clinic that treats patients with congestive heart failure is the cardiac unit. The four cardiologists handle the clinic on Mondays, Wednesdays, and Fridays. At Chukwuemeka Odumegwu Ojukwu Teaching Hospital, data was gathered from November 2019 to April 2020. There were 122 patients, with 75 men and 47 females. They comprised the study's accessible population. The Covid 19 Pandemic further limited travel inside the state during the research period, therefore Chukwuemeka Odumegwu Ojukwu Teaching Hospital was the only facility used.

Population of Study

The national population projection for Anambra State in 2019 was 5,988,221 with a 2.7% growth rate.

The study's target population consists of patients or clients with congestive heart failure who were registered and receiving medical care in Anambra State's tertiary health institutions between the ages of 58 and 65, as well as healthcare professionals such as physicians, nurses, and midwives, as well as patient relatives.

Sampling and Sampling Techniques

The study's sample is taken from Chukwuemeka Odumegwu Ojukwu University Teaching Hospital in Awka, Anambra State, because the COVID-19 pandemic caused limitations on travel and movement. The hospital chosen is Chukwuemeka Odumegwu

Ojukwu University Teaching Hospital, which doubles as a research center. A total of 300 individuals were sampled; 122 patients had data collected; 178 workers, including nurses and midwives, physicians, and patients' relatives, made up the sample size.

Instrument for data Collection

This study used interview techniques and a multiple-choice questionnaire as its tool for gathering data. These techniques are employed in order to gather the required data. The administered questionnaire comprised five research questions, twenty questions, and the respondents' personal information. To obtain the required information, the researcher kept up a positive rapport. Interviews were conducted with interviewers as well. The appendix contains the interview schedule.

Validity

The degree to which the instrument is meant to measure is its validity. An instrument cannot be considered genuine if its reliability deteriorates with time and its results change depending on when it is used. In this particular study, however, a supervisor reviewed the questionnaire and made any required modifications before the final copy was created, ensuring the instrument's content or face validity.Before the final copy was created, the supervisor carefully reviewed each item on the questionnaire and confirmed that it was valid and relevant.

Reliability Study of the Instrument

The degree to which a skill or knowledge measurement consistently produces comparable outcomes under various circumstances is known as reliability. A metric that produces consistent outcomes is one with a high reliability.

Using the test-retest method, a pilot test was conducted to determine the instrument's reliability for this investigation. The investigator accomplished this by the distribution of twenty questionnaires, five nurses and midwives, five patient relatives, five physicians, and five patients who were chosen. The respondents completed their questionnaires completely and returned them.

Ethical Consideration

In the course of this study, the researcher took into consideration all the ethics of research.

Procedure for Data Collection

The study instrument, a questionnaire, was given out in person to all participants, including those with congestive heart failure, their family, nurses, midwives, doctors, and patients. Based on each clinic day, a total of 300 questionnaires were sent to 300 respondents over the course of four weeks. With the assistance of the nurses and midwives, the questionnaires were distributed. Twelve CCF patients were interviewed.

Statistical analysis

The responses from the questionnaire were collected and tabulated as they relate to each hypothesis. The data were analyzed and frequencies worked out in simple percentage. The Chi-Square (X^2) statistics was used to test the hypothesis for the study using relevant questions that directly test the hypothesis.

RESULTS

Table 1 Educational status of the respondents

Educational Status	Frequency	Percentage
Primary	20	6.66%
Secondary	41	13.66%
Tertiary	235	78.33%
No formal Education	4	1.33%
Total	300	100%

Table 1 above shows that 20 respondents (6.66%) occupy primary education, 41 respondents (13.66%) are in the secondary education category, 235 respondents occupy (78.33%) of tertiary education category 4 respondents (1.33%) are in the no formal education while no respondent are in the others specify.

Table 2. Educational level of patients with congestive cardiac failure are related to compliance to diet and activity control regimes.

Option	Frequency	Percentage
Strongly Agree	195	65%
Agree	100	33.33%
Disagree	2	0.67%
Undecided	3	1%
Total	300	100

Table 2: 195 respondents (65%) strongly agree that educational level of patients with congestive cardiac failure is related to compliance to diet and activity control regimens. 100 (33.33%) agree 2 (0.67%) disagree, 3 (1%) respondents undecided.

Table 3: Higher educational level of patients with congestive cardiac failure helps to comply with diet and activity control regimens.

Options	Frequency	Percentage
S. Agree	200	66.66%
Agree	100	33.33%
Diagree	0	0%
Undecided	0	0%
Total	300	100

Table 3 above 200 respondents (66.66%) strongly agree that higher educational level of patients with congestive cardiac failure help to comply to diet and activity control regimens. 100 (33.33%) respondents agree, no respondent disagree and no respondent undecided respectively.

DISCUSSION

The research's conclusions can be summed up as follows: Patients with congestive heart failure are impacted by diet and exercise control programs. Patients with congestive heart failure may find it more difficult to follow diet and exercise control plans depending on their educational background [11]. Globally, congestive heart failure is still a very common condition with a high morbidity and mortality rate. According to estimates, there are 26 million cases of it globally, and it raises the expense of healthcare [12, 13]. Consequences for congestive heart failure patients include: moral depression; physical infirmity; dependence on family for support; frequent hospital admissions; high costs associated with medical expenses and medication; and physical degradation.
[14,15].

Consequences for family members and carers: they spend a lot of money taking care of their ailing loved ones, which keeps them from engaging in their normal activities [16].Congestive heart failure patients do not contribute anything to society [17, 18]. Due to the high incidence rate, a significant amount of government funding will go toward planning and research. Healthcare professionals face a challenge in better educating patients with congestive heart failure about diet and exercise regimens, compliance, and how to identify patients who are at risk of non-compliance and incorporate various strategies into multidisciplinary management programs [19].

Dietary and exercise control regimens are associated with the educational level of individuals with congestive heart failure. Using data from the field obtained from questions 9 and 14, the aforementioned hypothesis was tested and found to be both beneficial and valid. As a result, the researcher acknowledged that food and exercise regimes are related to the educational level of individuals with congestive heart failure.

CONCLUSION

This study examines the adherence to diet and exercise regimes among patients with congestive heart failure in public hospitals in Anambra State. The investigation was successfully completed. This result led to the observation and conclusion that, despite having a high level of education, there was very little adherence to diet and exercise control regimens. Congestive heart failure is a prevalent condition that is becoming more and more important for individuals and healthcare systems, particularly in the elderly.

Congestive heart failure prevention, however, is a top priority due to the disease burden, and thus calls for established programs of congestive heart disease prevention. In fact, community members should be brought together for free medical examinations as part of public health outreach programs to provide proper health education to individuals at the grassroots level.

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