Factors Associated With Medication Adherence Among Hypertensive Adults in Cameroon

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INTRODUCTION

The World Health Organization (WHO) reported that there are 1 billion adults diagnosed with hypertension globally and that estimate is projected to increase to approximately 1.6 billion (60%) by 2025. Increase in global hypertension have been attributed to a steady increase in hypertension in developing countries (WHO, 2002).

A systematic review of literature on hypertension prevalence in Sub-Saharan Africa found hypertension to be more prevalent in urban than rural areas. Increase prevalence was attributed to a population shift from rural to urban areas, physical inactivity and obesity (Addo, Smeeth & Leon, 2007).

Medication has been shown to produce significant gains when hypertensive patients adhere to treatment recommendations yet non-adherence remains a global health problem (WHO, 2003; Kearney et al., 2005)

PURPOSE

The purpose of the study was to identify factors associated with medication adherence among hypertensive adults in the North West Region Cameroon, Africa.

DEFINITION OF TERMS

Hypertension is defined as an average systolic blood pressure of greater or equal to 140 mm/Hg or a diastolic blood pressure of greater than or equal to 90 mm Hg (The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure [JNC VII]; WHO 2005).

Adherence. The World Health Organization defines adherence as the extent to which a person's behavior i.e., taking medication, following a diet, and/or executing lifestyle changes corresponds with agreed recommendations from a health care provider (WHO, 2003). . Adherence is the endurance from the practice and maintenance of desired health behaviors and is the result of active participation and shared decision making between patients and health care providers (Osterberg & Blaschke 2005; Horne 2006).

Hypertensive patient is a patient with blood pressure readings greater than or equals to 140/90mm/Hg (JNC-7; WHO, 2005) and currently taken one or more hypertensive medications.

MATERIALS AND METHODS

Design
A descriptive cross-sectional survey design and data collected by self-administered questionnaires between July 31th and August 31th 2014.

Setting
The study was conducted at two hospital based clinics in the North West Region of Cameroon. The region was selected because it is the second largest region amongst Cameroon's ten regions.

Sample
A convenience sample of established patient at the Regional Hospital & a small Catholic Hospital.
Inclusion criteria 1) 18 years and above 2) diagnosed with hypertension for at least 6 months 3) speak and understand English and Pidgin English 4) Taking at least one hypertensive medication for at least 6 months.
Exclusion criteria 1) Critically ill 2) pregnant women, 3) people with mental illness.

Instrument

This study utilized 15 items demographic variables: age, gender, marital status, income, education, occupation, smoking, alcohol, number of anti-hypertensive drugs, durations on anti-hypertensive drugs, traditional medicine used, method of transport, distance and perceived health status.
Morisky Medication Adherence (MMAS-8)questionnaire - an 8-item response instrument with an established validity and reliability – Cronbach alpha .83 (Morisky et. al. 2007).
Both questionnaires were given at the same time.

Data collection procedure

Patients who presented at the clinic for scheduled visits were approached by the researcher.
Study purpose was read in English and Pidgin English. Patients who agreed to participate where given the questionnaire to complete.

DATA ANALYSIS

A descriptive statistics was computed for patient's characteristics.
Chi-square test was conducted to determine significant relationships between socio-demographic characteristics and medication adherence.
A Pearson correlation coefficient was computed for the relationship between research variables and medication adherence and for relationship between blood pressure readings and medication adherence

RESULTS

Questionnaires distribution.
Two hundred and ten questionnaires were distributed and collected by the researcher at two hospital-based clinics in the North West Region of Cameroon.

Two hundred and six (206) were completed and returned, a (98%) response rate. Six questionnaires had missing data and were removed.

The total sample (n=200) included patients from regional hospital clinic (n=164), and a Catholic hospital clinic (n=36).

No significant differences were identified between these groups so the samples were aggregated. Statistics related to the age for the samples fell within the normal curve (m=61.26, SD=11.395).

Approximately forty seven percent (47%, n = 94) of participants had a normal blood pressure recording. The mean systolic blood pressure was 141mm/Hg (SD = 20.1723) and the mean diastolic blood pressure was 85mm/Hg (SD=12.175).

Medication Adherence and Morinsky Score
Adherence score ranged from "0" to "8". Low (<6), medium (6-<8), and high (=8) adherence . The mean score was 6.33, SD=2.089. Approximately thirty one percent (n = 63) achieved a low adherence, thirty two percent (n= 64) medium adherence and thirty six percent (n= 73) high adherence. Approximately (68%, n=137) achieved score greater than six and were considered adherent to antihypertensive medications.

Factors Associated With Adherence
Two statistically significant chi square test results were found: **alcohol use** and **level of education.**
Alcohol: (X^2 = 10.226, df = 2, p<.05). Participants who drank alcohol were more likely to have a lower medication adherence score than participants who did not drink alcohol.
Education:(X^2(1) = 17.760, df = 6, p<.05). Participants who reported educational level to be primary/below were more likely to have lower adherence score

CONCLUSIONS/IMPLICATIONS TO PRACTICE

Among 15 variables research variables, two variables (education and alcohol) were statistically significant at p<.05.

Education and literacy has a direct impact on adherence (IOM, 2004).

The ability to read and understand medication labels and treatment recommendations is crucial in improving adherence, it is therefore important for health care providers to provide instructions to patients at the grade level that is understood by the patients

With regards to alcohol use, Problems with drinking alcohol also has significant implications in clinical practice in terms of potential for drug interactions with alcohol and also in terms of patient forgetting to take their medications because of alcohol intoxication.
Therefore clinicians should be encouraged to screen patients for possible drug use.

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