



A CORRELATIONAL STUDY ON THE KNOWLEDGE, PERCEPTION, AND MEDICATION ADHERENCE AMONG SELECTED SENIOR CITIZENS WITH HYPERTENSION IN POBLACION 2, OCCIDENTAL MINDORO

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ABSTRACT

Hypertension (HTN) is a condition which is characterized by high blood pressure and is considered a primary risk factor for serious damage to the heart. This condition is very common among the elderly, as the inevitable part of aging is a decline in health. Hypertension along its potential complications may be managed with hypertensive medication and/or proper medication adherence (Felman, 2019). This descriptive study correlates the knowledge, perception, and adherence to hypertensive medication among selected senior citizens with hypertension in Poblacion 2, Sta. Cruz, Occidental Mindoro. A total of 203 eligible participants with hypertension completed the survey questionnaire. It is found that there is a high level of knowledge and perception on adherence to hypertensive medication among the participants with an average score of 4.68 (strongly agree) and 4.63 (strongly agree), respectively. However, the majority of the respondents comprising 55.17% are identified as having low levels of medication adherence using the Morisky Medication Adherence Scale (MMAS). Overall, the result showed that there is a weak correlation between knowledge, perception, and medication adherence among selected senior citizens. In regards to these findings, it is believed that medication adherence is a multifactorial phenomenon where knowledge and perception are one of the many factors.

KEYWORDS: *Knowledge, Perception, Medication Adherence, Hypertension, Senior citizens* Medication adherence among senior citizens.

INTRODUCTION

Hypertension (HTN) is a condition which remains a public health issue and a single risk factor for cardiovascular-related death worldwide. Several factors that increase the risk of hypertension include the increase in age — an inevitable part of life that leads to a decline in health. In fact, of all age groups, the highest prevalence and particularly at higher risk of hypertension constitutes the elderly or senior citizens. Even though they are expected to be more aware of their condition, and available treatments are effective or hypertension itself is manageable, studies have shown that the elderly have the lowest control of their blood pressure or more likely to be under medication — extensive users of the medication (Arellano, 2019).

Medication adherence among senior citizens remains suboptimal wherein non-adherence is an intricate issue and/or associated with poor health. In fact, it is recognized as a major factor that affects one's health especially among the elderly (Arellano, 2019). Studies report that good medication adherence plays an

important role as a determinant to the success of preventive measures for hypertension risk reduction and/or determines the success of hypertensive medication therapy (Khan, 2019). On the other hand, non-adherence to medication results in higher healthcare costs, longer hospitalization, and increased morbidity and mortality (Sarayani, 2013). Medication adherence is a key component in the management of high blood pressure and in preventing or controlling cardiovascular diseases (Asgedom, 2020). Thus, it is considered as one of the crucial factors in the treatment of chronic illnesses like hypertension. Yet, holds importance as this will ensure that maximum therapeutic benefits are delivered to patients such as the geriatrics (Yap, 2015).

In addition, another key component in the management of hypertension is understanding factors associated with adherence levels among the elderly (Arellano, 2019). Thus, this questionnaire-based, correlational study aims to correlate the knowledge, perception, and medication adherence of selected Senior citizens with hypertension in Poblacion 2 Sta. Cruz, Occidental Mindoro.

METHODS AND MATERIALS

Study Design

The study used a descriptive correlation design in correlating the knowledge, perception, and hypertension medication adherence of selected senior citizens. Correlational descriptive design was used in the study to determine the relationship between variables and statistically assess them. Correlation is used to verify the formulated hypotheses and to elucidate them.

Instrument Used

The data collection tool used in this study was Morisky Medication Adherence Scale MMAS was derived from the study of Pirasath et al. (2017). The survey questionnaires are in three sections, the first section on demographic profile of the respondents such as age, gender, educational attainment, who supports their medication/s, and the number of years with hypertension, second section includes close-ended questions on knowledge and perception on hypertension medication adherence answered using a 5 point Likert scale and the third section is the MMAS, an 8-scale validated assessment tool to measure the level of hypertension medication adherence of senior citizens.

Validation Procedures

Validation of questionnaires was conducted by professionals who are knowledgeable in this field. It includes the licensed doctor, psychologist, psychometrician, statistician, and a registered pharmacist. A reliability test was conducted to twenty-five (25) senior citizens of Poblacion 2. The data collected were statistically analyzed through Cronbach's Alpha in IBM SPSS® Statistics software.

Study Respondents

Senior citizens with hypertension in Poblacion 2, Sta. Cruz, Occidental Mindoro.

Sample Size

287 senior citizens of Poblacion 2, Sta. Cruz, Occidental Mindoro.

Sampling Method

Study utilized a non-probability sampling method. Total population sampling utilizes the whole population that possesses similar characteristics or attributes (Total Population Sampling | Lærd Dissertation, n.d.). This type of sampling technique eliminates any bias since the entire population was given an equal chance to be selected.

Data Collection and Analysis

The responses were interpreted using the following: Percentage, Weighted mean, Average, and Pearson-R Correlation. Statistical Package for the Social Sciences (SPSS)

Ethics Approval

Research protocol was reviewed and approved by the

Institutional Ethics Review Committee (IERC) of Centro Escolar University Research and Evaluation Office.

RESULTS AND DISCUSSION

Demographic Profile of the Respondents

Out of 287 registered senior citizens in Poblacion 2, Sta. Cruz, Occidental Mindoro 203 has hypertension and qualified as respondents for the study. Respondents were mostly in the age group of 60-70 years old (50.74%), female (57.64%), highest educational attainment is primary (elementary) level (42.86%), monthly family income under ₱10,000 (66.50%), and medication is supported by themselves (43.84%) and their children (43.35%). with hypertension for about 5 to 10 years and maintaining medication for several years.

Knowledge on Hypertension Medication Adherence

The respondents manifested a high level of knowledge on hypertension medication adherence having a weighted mean of 4.68 (Please see Table 1).

Perception on Hypertension Medication Adherence

The respondents strongly agree (AM - 4.63) of the relevance and importance of hypertension medication adherence. (Please see Table 2). Knowledge can shape perception hence respondents' high level of knowledge is directly proportional to their perception (Samaha, 2018).

Medication Adherence

Majority of the respondents have low adherence to their hypertensive medication which may indicate that there are factors that affect the adherence to medication among senior citizens (Please see Table 3). Some associated factors may be educational level, the possibility of having other health-related problems, medication dosing, and patient counseling (Jin, 2016).

Correlation of Knowledge, Perception, and Medication Adherence

Pearson R correlation coefficient of 0.891 manifests the respondents' significant very strong correlation between knowledge and perception on medication adherence. While, the Pearson R correlation coefficient of 0.258 and 0.286 manifests the respondents' significant weak correlation on both knowledge and perception to medication adherence among senior citizens with hypertension in Poblacion 2, Sta. Cruz, Occidental, Mindoro. (Please see Table 4).

CONCLUSION

Based on the findings, there is a significant weak correlation between study respondent's knowledge and perception over medication adherence.

Moreover, a significantly strong correlation was found between respondent's medication adherence knowledge over medication adherence perception *vis a vis*.

Despite the high level of knowledge and perception on medication adherence, the respondents showed low medication adherence.

Table 1: Knowledge of Respondents Regarding Hypertension Medication Adherence.

Questions	SA	A	MA	D	SD	Weighted Mean	Verbal Interpretation
f (%), n = 203							
1. Complications will be prevented if I comply with my medications.	149 (73.40)	50 (24.63)	2 (0.99)	2 (0.99)	0 (0.00)	4.70	Strongly Agree
2. Adhering to my medication helps in lowering my blood pressure.	144 (70.94)	57 (28.08)	0 (0.00)	2 (0.99)	0 (0.00)	4.69	Strongly Agree
3. It is important to continue taking my medications even when I feel better.	139 (68.47)	55 (27.09)	9 (4.43)	0 (0.00)	0 (0.00)	4.64	Strongly Agree
4. It is important to follow other instructions given by my doctor regarding my medication in order to manage my hypertension/condition.	147 (72.41)	54 (26.60)	2 (0.99)	0 (0.00)	0 (0.00)	4.71	Strongly Agree
5. It is important to follow the right dose and time when taking medications in order to manage my hypertension/condition.	139 (68.47)	56 (27.59)	8 (3.94)	0 (0.00)	0 (0.00)	4.65	Strongly Agree
Average						4.68	Strongly Agree

Legend: SA –Strongly Agree; A-Agree; MA- Moderately Agree; D-Disagree; SD- Strongly Disagree

Table 2: Perception of Respondents Regarding Hypertension Medication Adherence.

Questions	SA	A	MA	D	SD	Weighted Mean	Verbal Interpretation
f (%), n = 203							
1. Adhering to my medications is easily done.	135 (66.50)	49 (24.14)	18 (8.87)	1 (0.49)	0 (0.00)	4.57	Strongly Agree
2. Adhering to my medications is my responsibility.	140 (68.97)	63 (31.03)	0 (0.00)	0 (0.00)	0 (0.00)	4.69	Strongly Agree
3. By adhering to my hypertension medications, my blood pressure will be managed.	135 (66.50)	60 (29.56)	8 (3.94)	0 (0.00)	0 (0.00)	4.63	Strongly Agree
4. Adhering to my medications is the best option to manage my hypertension.	139 (68.47)	49 (24.14)	15 (7.39)	0 (0.00)	0 (0.00)	4.61	Strongly Agree
5. Adhering to my medications gives me relief.	139 (68.47)	56 (27.59)	8 (3.94)	0 (0.00)	0 (0.00)	4.65	Strongly Agree
Average						4.63	Strongly Agree

Legend: SA –Strongly Agree; A-Agree; MA- Moderately Agree; D-Disagree; SD- Strongly Disagree

Table 3: Results of MMAS to Measure the Respondents' Adherence to Hypertension Medication.

Morisky Medication Adherence Scale	Frequency	Percentage (%)
High Adherence	25	12.32
Medium Adherence	66	32.51
Low Adherence	112	55.17

Table 4: Computed Correlation Coefficients for Knowledge, Perception, and Medication.

Variables Tested	Pearson- R Correlation Coefficient	Verbal Interpretation
Knowledge & Perception	0.891	Very strong correlation
Knowledge & Medication Adherence	0.258	Weak Correlation
Perception & Medication Adherence	0.286	Weak Correlation

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