

**EFFECTIVENESS OF ENHANCED COMMUNITY-BASED PROGRAM FOR
HYPERTENSION IN KNOWLEDGE, LEVEL OF ADHERENCE TO
THERAPEUTIC REGIMENS AND BLOOD PRESSURE OF
HYPERTENSIVE PATIENTS**

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ABSTRACT

This study sought to determine the effectiveness of the enhanced community-based program for hypertension in the degree of knowledge, level of adherence and blood pressure of the Hypertensive patients. The study was conducted at a Parish-owned community in Barangay Lumang Bayan, Plaridel, Bulacan. The study utilized randomized, two-group, experimental design. A total of 30 hypertensive patient participants participated in the study which was divided into two groups, namely: control (15) and experimental groups (15). The researcher utilized the following research instrument tools, namely: Degree of Knowledge (DOK) pretest/posttest tool; Treatment, Medication, Activity, and Diet (TMAD) adherence tool; and OMRON digital wrist blood pressure manometer cuff. The study utilized mean, standard deviation, and t-test for independent samples. The findings of the study revealed that generally, the community-based program for hypertension is an effective health education program in improving hypertensive patients' increasing degree of knowledge to key health strategies, improving adherence to treatment regimens, and significantly reducing systolic and diastolic blood pressure among hypertensive patient participants.

Keywords: *Community-based program, hypertension, adherence, therapeutic regimen, blood pressure, hypertensive patients*

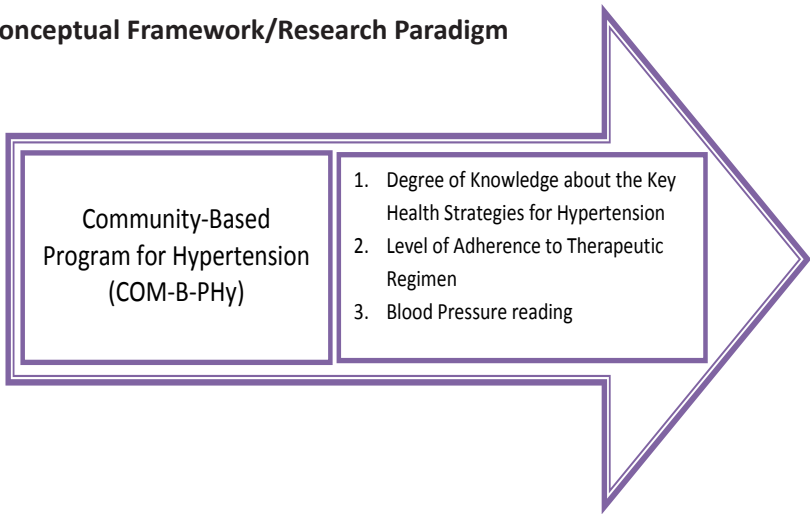
INTRODUCTION

Cardiovascular diseases comprise 16.7 million of total global deaths (Reyes, 2006). The rapid rise in the prevalence of cardiovascular disease represents one of the major health challenges to the country, and globally in the coming century. Cuevas (2007) even emphasized that it was estimated that 35 million mortality have occurred which contributes to 60% of deaths worldwide.

The Philippine Society of Hypertension (2004) cited that the Philippines have the highest rates of prevalence of hypertension in Southeast Asia with 70% of all cardiovascular patients suffering from it. Around 12.6 million Filipinos are diagnosed with hypertension but half of them are unaware that they are hypertensive unless they suffered from complications. Hypertension is a major risk factor for heart diseases, heart attack, cardiac arrest, heart failure and stroke. Untreated hypertension triples a person chance of developing coronary heart diseases or arteriosclerosis, six-fold chance of congestive heart failure, and seven-fold chance of developing stroke.

In line with this, there is no standardized community-based intervention program for hypertension widely implemented as part of the primary health care service in the country. The researcher, being a former public health nurse, a member of cardiovascular nurse practitioner in the Philippines, and a nursing educator, would like to enhance a community-based program for hypertension. This prompted the researcher to develop such health education program that will increase self-awareness about hypertension as an illness, will improve adherence to therapeutic regimens, will reduce blood pressure, will improve hypertension control, will promote awareness of the prescribed therapeutic diet for hypertension, will promote healthy lifestyle, will prevent sedentary lifestyle, and will utilize different coping and stress management strategies. This study, in return, will prevent complications, morbidity and mortality associated with hypertension, will promote better clinical health outcomes, will lead to a favorable health prognosis and lastly, will improve quality of life among hypertensive patients.

Conceptual Framework/Research Paradigm



This experimental study aimed to determine the effectiveness of the enhanced community-based program for hypertension in the level of adherence to therapeutic regimen. This research paradigm is comprised of independent and dependent variables. The independent variable in the study was the community-based program for hypertension. This community health education program consisted of 5 key intervention strategies, namely: disease awareness strategy, medication strategy, dietary strategy, healthy lifestyle strategy and stress reduction strategy. Such program aimed to promote optimum cardiovascular health, prevent complications associated with hypertension and promote behavior modification. This community based program for hypertension as an independent variable, was given as an intervention to the experimental group. On the other hand, the outcome measures are the dependent variables of the study. Such measures comprise of the following: a) degree of knowledge to key health strategies, b) level of adherence to therapeutic regimens, and c) blood pressure readings. Mean scores were measured before and after the implementation of intervention in order to determine the effectiveness of the community based program for hypertension.

Statement of the Problem

Generally, this research sought to determine the effectiveness of the enhanced community-based program for hypertension in the knowledge, level of adherence and blood pressure of the hypertensive patients.

Specifically, it sought to provide answers to the following questions:

1. What are the mean scores of the control and experimental groups before the implementation of community-based program for hypertension in terms of:
 - 1.1. Degree of knowledge about:
 - 1.1.1. Disease awareness;
 - 1.1.2. Medication regimen;
 - 1.1.3. Dietary regimen;
 - 1.1.4. Healthy Lifestyle; and
 - 1.1.5. Stress Management?
 - 1.2. Level of adherence to therapeutic regimens
 - 1.2.1. Treatment regimen;
 - 1.2.2. Medication regimen;
 - 1.2.3. Activity regimen; and
 - 1.2.4. Dietary regimen?
 - 1.3. Blood Pressure readings
 - 1.3.1. Systolic blood pressure; and
 - 1.3.2. Diastolic blood pressure?
2. Is there a significant difference in the mean scores of the control and experimental groups before the implementation of community-based program for hypertension in terms of degree of knowledge, level of adherence to therapeutic regimens; and blood pressure reading?
3. What is the enhanced community-based program for hypertension?
4. What are the mean scores of the control and experimental groups after the implementation of community-based program for hypertension, in terms of:

- 4.1. Degree of knowledge about:
 - 4.1.1. Disease awareness;
 - 4.1.2. Medication regimen;
 - 4.1.3. Dietary regimen;
 - 4.1.4. Healthy Lifestyle; and
 - 4.1.5. Stress Management?
 - 4.2. Level of adherence to therapeutic regimens
 - 4.2.1. Treatment regimen;
 - 4.2.2. Medication regimen;
 - 4.2.3. Activity regimen; and
 - 4.2.4. Dietary regimen?
 - 4.3. Blood Pressure reading
 - 4.3.1. Systolic blood pressure; and
 - 4.3.2. Diastolic blood pressure?
5. Is there a significant difference in the mean scores of the control and experimental groups after the implementation of community-based program for hypertension in terms of degree of knowledge, level of adherence to therapeutic regimens; and blood pressure reading?
6. Is there a significant difference between the mean scores of the control and experimental groups before and after the implementation of community-based program for hypertension in terms of degree of knowledge, level of adherence to therapeutic regimens, and blood pressure reading?

METHODOLOGY

Research Design

The study is focused on determining the effectiveness of the enhanced community-based program for hypertension. The research design that was utilized was randomized, two-group experimental design.

Participants of the Study

A total of 30 hypertensive patients participated in the study

which was divided into two groups, namely: control and experimental groups. Each group contained 15 subjects which means, there were 15 participants included in the control group and another of 15 participants in the experimental group.

Inclusion criteria specify the population characteristics that are eligible to participate in the study. (Polit, 2004). In this connection, the inclusion or eligibility criteria for the study include (a) participants must be a hypertensive patient-preferably primary/essential hypertension; (b) newly diagnosed hypertensive patients, (c) pre-hypertensive patient participants are also included with blood pressure measurement reading of (130/80); (c) hypertensive patient participants with controlled hypertension as evidence by normotensive blood pressure measurement reading (within normal blood pressure reading of 110/70); (d) hypertensive patient participants taking their anti-hypertensive maintenance medications for their hypertension; (e) participants must be of legal age (18 years old and above) in order to participate in the study; (f) participants must be a bona fide resident of Jubilee Homes Subdivision, Barangay Lumang Bayan, Plaridel, Bulacan. and (g) the participants must belong to young adulthood (18 to 39 years old) and middle adulthood age group (40 to 65 years old) in order to participate.

Exclusion criteria are criteria that entitled participants not eligible nor to participate in the study including (a) participants who are not of legal age (18 years old and below) because for the legal purpose of signing the informed consent. (b) Participants who are over age and belong to late adulthood stage (more than 65 years old) because this community-based program for hypertension requires physical endurance and mental alertness due to vigorous and increased physical activities (to prevent fatigue and physical exhaustion among elderly) and didactic health education program in order to prevent exaggerated existing clinical condition. (c) Participants who belong to secondary hypertension classification. They are excluded to participate in the study because the cause of their high blood pressure is due to presence of secondary disease comorbidity such as Diabetes mellitus, Stroke, Cardiac dysrhythmias, Heart Failure and Renal disorders. (e) Participants with presence of mental impairment, unstable mental condition, hearing disturbance and physical impairments. (f) Participants who can't speak, read, write and understand Tagalog

language because this is the primary medium of instruction that will be utilized all throughout the study and intervention program. (g) Hypertensive patient participants with chronic or long-term hypertension because this ten-week community based program might be too short to have an impact to these chronically diagnosed hypertensive patients. (h) Lastly, hypertensive patient participants with hypertensive crisis or uncontrolled hypertension (blood pressure reading of more than or equal to 180/120 mmHg) because the program entails physical promotional activities that might aggravate the present medical condition. This study entitled “The effectiveness of the proposed community-based program for hypertension to the knowledge, level of adherence and blood pressure of hypertensive patients” was conducted in 5-hectare land housing project which is a Parish-owned community situated in Barangay Lumang Bayan, Plaridel, Bulacan. The locale of the study was chosen because this is the workplace of the researcher. This is where the University of Santo Tomas College Of Nursing conducts their community health nursing immersion program. Thus, it will be easier, convenient and accessible on the part of the researcher if chosen this basic ecclesial community.

Data Gathering Procedure

The data gathering happened from June 22 to September 4, 2015. First, the researcher submitted a letter of request to the Diocese of Malolos, Bulacan to conduct a study at their parish-owned community located in Plaridel, Bulacan. Second, the researcher performed content validation of the research instrument tools, conducted pilot testing to pre-hypertensive patients and test of validity and reliability of the said tools. Third, the researcher started actual data gathering by identifying the pre-hypertensive patients for pilot study of the said research instrument tool. Fourth, the hypertensive patients as the participants for the study were selected based on the case finding from the patient’s treatment record or health record from the files at community health center. Fifth, the researcher contacted the chosen participants and conducted thorough medical history taking and blood pressure screening in order to identify eligibility to participate in the study using the inclusion and exclusion criteria guidelines provided by the researcher. Sixth, the

researcher provided an informed consent to the participants who agreed to participate in the study. In here, the researcher explained the purpose of the study, discussed the potential risks and benefits and assured the participants of the confidentiality and anonymity of the information that were gathered, explained the rights to participate and rights to withdraw from the study, and lastly answered all the necessary questions/queries of the participants. Seventh, the researcher utilized proportionate stratified participants to the target population using two strata (age and gender). Randomization of the participants as a sampling technique to determine participants who were randomly selected as either control or experimental group was done. Eighth, the researcher determined the mean scores to both experimental and control group before the implementation of community based program using three outcome measures (namely: degree of knowledge to key health strategies, level of adherence to therapeutic regimens, and blood pressure measurement readings). Ninth, both the control and experimental groups received the usual treatment and traditional regimens for hypertension in the community health center. Tenth, the participants for control group were not exposed to the community intervention program. On the other hand, the participants of the experimental group were exposed in the community-based program for hypertension (as the intervention for a ten-week experiment). Each two-week pertains to a particular health promotion program and hypertension disease prevention strategy for a total of ten weeks. Such strategies include disease awareness, medication regimen, dietary and nutrition, lifestyle practices and stress management strategies. Tenth, the researcher determined the mean scores to both experimental and control group after the implementation of community-based program using three outcome measures (namely: degree of knowledge to key health strategies, level of adherence to therapeutic regimens, and blood pressure measurement readings). Eleventh, the researcher collated, tallied, tabulated, presented, interpreted, discussed and analyzed the results of data.

Data Analysis

The mean (\bar{x}) is the average value of all data in the set. It is the average of the scores which is also the mathematical center of a distribution. This

is the most commonly used measure of central tendency (Dayrit, 2007). In this study, the mean as a statistical tool determined the pre-test and post-test mean scores of the control and experimental group before and after the administration of community-based program for hypertension in terms of their degree of knowledge (regarding hypertension as a disease process, anti-hypertensive medications, diet and nutrition, healthy lifestyle practices, and coping and stress management). It also determined the mean scores on the level of adherence to therapeutic regimens of the control and experimental groups before and after the implementation of the said program. Moreover, the systolic and diastolic blood pressure readings of the control and experimental groups before and after the program also utilized mean. The researcher utilized t-test for independent samples. Such technique is commonly used to compare the difference of means of two groups. Also, this statistical tool was used to measure the significant difference between two samples/groups (Dayrit, 2007). The t-test tested the significant difference between the pretest and posttest mean scores of the control and experimental groups before and after the implementation of Community-based program for hypertension. It also tested the significant difference between the level of adherence to therapeutic regimens of the control and experimental groups before and after the implementation of community-based program for hypertension. Moreover, this study also validated if there is a presence of significant difference in the blood pressure readings of the control and experimental groups before and after the implementation of program.

RESULTS AND DISCUSSION

Mean Scores on the Degree of Knowledge to Key Health Strategies Before the Implementation of the Community-Based Program for Hypertension

Based from the results of the study, the control group had a pretest mean score of 7.79, which means that, control group had “inadequate” knowledge about the different key health strategies. Meanwhile, it shows that the experimental group has a pretest mean score of 7.64 which means that the experimental group also has “inadequate” knowledge about the different key health strategies. Inadequate knowledge on the different key health strategies for hypertension implies a low level

of understanding to disease awareness, medication regimen, dietary regimens, healthy lifestyle, and stress management key health strategies. Community-based program for hypertension is necessary to improve patient's level of understanding, increase degree of knowledge, have better educational level, and increase health literacy about hypertension. Hypertension awareness program must be established to improve patient's education and establish an effective communication in the promotion of optimum cardiovascular health, behavior modification, healthy lifestyle, favorable clinical health outcomes, and adequate blood pressure control among hypertensive patients. Moreover, Health education strategy for hypertension is necessary to prevent risks of cardiovascular events, prevent morbidity and mortality, prevent unfavourable patient outcomes and delay disease progression.

Mean Scores on the Level of Adherence to Therapeutic Regimens before the Implementation of the Community-Based Program for Hypertension

There is a "moderate level" of adherence to treatment regimens both in the control and experimental group before the implementation of community-based program for hypertension with mean scores of 2.00 and 2.19, respectively.

Mean Scores on the Pre-Systolic and Pre-Diastolic Blood Pressure Readings of the Control and Experimental Groups

For the pre-systolic blood pressure readings, the average BP reading for the control group is 143.33mmHg (SD± 21.60), which means, majority of the participants were experiencing stage 1: mild hypertension at the time of pre-implementation phase. Meanwhile, the average reading for the experimental group is 140.00 mmHg (SD± 14.64), which means, majority of the participants is experiencing stage 1: mild hypertension at the time of pre-implementation phase. For the pre-diastolic blood pressure readings, the average reading for the control group is 92.67 mmHg (SD± 12.23) which means majority of the participants is experiencing stage 1: mild hypertension at the time of pre-implementation phase. Meanwhile, the average reading for the experimental group is 90 mmHg (SD± 8.45) which means that, majority of the participants is experiencing stage

1: mild hypertension at the time of pre-implementation phase. Although the blood pressure readings of the hypertensive patients remain to be mild and not in moderate, severe, and crisis hypertensive state, still it remains to have their blood pressure in an elevated condition. Despite being hypertensive for several years, it implies a poor hypertensive control among participants which might lead to cardiovascular risk, poor clinical outcomes, and even unfavorable disease prognosis. This implies that the community-based program for hypertension must be developed to improve the systolic and diastolic blood pressure of the hypertensive patients, as one of the outcome measures of the study. Such program also targets uncontrolled hypertension in order to prevent life-threatening complications like cardiovascular diseases, disease progression, unfavorable clinical outcomes, morbidity and mortality.

Test of Significant Difference in the Mean Scores in the Degree of Knowledge to Key Health Strategies of the Control and Experimental Groups

For the difference on mean scores on the degree of knowledge to key health strategies (disease awareness, medication regimen, dietary regimen, healthy lifestyle and stress management) of the control and experimental group before the implementation of community-based program for hypertension, at 0.05 level of significance, the null hypothesis of no significant difference in the pretest degree of knowledge to different key health strategies of the control and experimental group is accepted.

Test of Significant Difference in the Mean Scores in the Level of Adherence to Therapeutic Regimens of the Control and Experimental Groups

In terms of the difference on mean scores on the level of adherence to therapeutic regimens (treatment, medication, activity and dietary) of the control and experimental group before the implementation of community-based program for hypertension, at 0.05 level of significance, the null hypothesis of no statistical significant difference in the mean scores of the level of adherence to therapeutic regimens of the control

and experimental group is accepted.

Test of Significant Difference in the Pre- Systolic and Pre-Diastolic Blood Pressure Readings of the Control and Experimental Groups

With respect to the difference on systolic and diastolic blood pressure readings of participants before the implementation of community-based program for hypertension, at 0.05 level of significance, the null hypothesis of no statistical significant difference in the mean scores of the pre-systolic and pre-diastolic blood pressure readings of the control and experimental group is accepted.

Mean Scores on the Degree of Knowledge to Key Health Strategies after the Implementation of the Community-Based Program for Hypertension

Based from the results, it showed that the control group has a posttest score of 7.48, which means that, the members of the control group still remain with “inadequate” knowledge about the different key health strategies. Meanwhile, it shows that the experimental group has a posttest score of 12.84 which means that the members of experimental group have “adequate” knowledge about the different key health strategies.

Mean Scores on the Level of Adherence to Therapeutic Regimens after the Implementation of the Community-Based Program for Hypertension

Based from the results, it is revealed that the control group had a pre-adherence mean score of 2.17 (SD± 0.40), which means that, control group had “moderate level” of adherence to therapeutic regimens. Meanwhile, it shows that the experimental group has a post-adherence mean score of 2.57 (SD± 0.29) which means that experimental group had “high level” of adherence to therapeutic regimens.

The Mean Scores on the Systolic and Diastolic Blood Pressure Readings of the Control and Experimental Groups

The systolic and diastolic blood pressure readings of the participants after the implementation of community-based program for hypertension, for the post-systolic blood pressure readings, the average BP reading for

the control group is 136.67 mmHg (SD± 21.27), which means that, majority of the participants showed statistical significant reduction in their systolic arterial blood pressure from stage 1: mild hypertension and now into a prehypertensive stage. Meanwhile, the average systolic BP reading for the experimental group is 124.67 mmHg (SD± 9.90) which means that majority of the participants showed statistical significant reduction in their systolic arterial blood pressure from stage 1: mild hypertension and currently into a prehypertensive stage.

Test of Significant Difference in the Intervention Mean Scores in the Degree of Knowledge to Key Health Strategies of the Control and Experimental Groups

The difference on mean scores on the degree of knowledge to key health strategies (disease awareness, medication regimen, dietary regimen, healthy lifestyle and stress management) of the control and experimental group after the implementation of community-based program for hypertension, at 0.05 level of significance, the null hypothesis of no statistical significant difference in the posttest degree of knowledge to key health strategies of the control and experimental group is rejected.

Test of Significant Difference in the Mean Scores in the Level of Adherence to Therapeutic Regimens of the Control and Experimental Groups

With respect to the difference on mean scores on the level of adherence to therapeutic regimens (treatment medication, dietary, activity and diet) of the control and experimental group after the implementation of community-based program for hypertension, at 0.05 level of significance, there is no significant difference in the mean scores of the level of adherence to therapeutic regimens (drug and activity regimens) of the control and experimental group. On the other hand, study showed presence of significant difference in mean scores of the level of adherence to therapeutic regimens (treatment and diet regimens) of the control and experimental group.

Test of Significant Difference in the Post-Systolic and Post-Diastolic Blood Pressure Readings of the Control and Experimental Groups

In terms of the difference on systolic and diastolic blood pressure readings of participants after the implementation of community-based program for hypertension, at 0.05 level of significance, the null hypothesis of no statistical significant difference in the post-systolic blood pressure readings of the control and experimental group is accepted ($t=1.981$, $p=0.058$). While the null hypothesis of no statistical significant difference in the post-systolic blood pressure readings of the control and experimental group is rejected ($t=2.319$, $p=0.028$).

Test of Significant Difference in the Pretest and Posttest Scores in the Degree of Knowledge to Key Health Strategies of the Control and Experimental Groups

With regard to the difference on mean scores on the degree of knowledge to key health strategies (disease awareness, medication regimen, dietary regimen, healthy lifestyle and stress management) of the control and experimental group before and after the implementation of enhanced community-based program for hypertension, at 0.05 level of significance, the null hypothesis of no statistical significant difference in the pretest and posttest degree of knowledge to key health strategies of the control group is accepted. On the other hand, the null hypothesis of no statistical significant difference in the pretest and posttest degree of knowledge to key health strategies (medication, lifestyle and stress reduction strategies) of the experimental group is rejected.

Test of Significant Difference in the Mean Scores in the Level of Adherence to Therapeutic Regimens of the Control and Experimental Groups

The difference on mean scores on the level of adherence to different therapeutic regimens (treatment, medication, activity and diet) of the control and experimental group before and after the implementation of the enhanced community-based program for hypertension, at 0.05 level of significance, the null hypothesis of no statistical significant difference

in the pre- and posttest degree of knowledge to key health strategies of the control group is accepted. On the other hand, the null hypothesis of a/no statistical significant difference in the pretest and posttest degree of knowledge to key health strategies (medication, lifestyle and stress reduction strategies) of the experimental group is rejected.

Test of Significant Difference in the Mean Scores in the Systolic and Diastolic Blood Pressure Readings of the Control and Experimental Groups

The difference on systolic and diastolic blood pressure readings of the control and experimental group before and after the enhanced community-based program for hypertension, at 0.05 level of significance, the null hypothesis of no statistical significant difference in the presystolic and postsystolic ($t=2.320$, $p=0.036$) and prediastolic and postdiastolic ($t=0.642$, $p=0.531$) blood pressure readings of the control group is accepted. The null hypothesis of no statistical significant difference in the presystolic and postsystolic ($t=5.277$, $p=0.000$) and prediastolic and postdiastolic ($t=3.595$, $p=0.003$) blood pressure readings of the experimental group is rejected.

CONCLUSION

Based on the findings of the study, the following conclusions are drawn:

Generally, the community-based program for hypertension is an effective health education program in improving hypertensive patients' increasing degree of knowledge to key health strategies, improving adherence to treatment regimens and significantly reducing systolic and diastolic blood pressure among hypertensive patient participants.

Specifically, the community-based program for hypertension is an effective program in improving the degree of knowledge to key health strategies. Thus, the said health education program is effective in increasing the level of understanding to disease, medication regimen, dietary regimen, healthy lifestyle and stress management. Moreover,

the ten-week community-based program for hypertension is an effective program that promoted awareness, health teaching and patient education among hypertensive patients.

Further, the community-based program for hypertension is an effective program in promoting statistical significant improvement in the level of adherence to therapeutic regimens. Thus, the said health education program is effective in increasing compliance to recommended treatment, medication, physical activity and dietary regimens. Also, the community based program for hypertension is an effective health educational campaign that is proven to promote significant difference in the level of adherence to therapeutic regimens among hypertensive patients of the control and experimental groups.

The community-based program for hypertension is an effective program in promoting statistically significant improvement in the arterial blood pressure of the hypertensive patients. Specifically, the study revealed a statistical significant reduction in the systolic and diastolic blood pressure readings before and after the implementation of the community intervention program from a blood pressure reading of stage 1: mild hypertension (BP of 140/90) and now significantly reduced into a pre-hypertensive stage (130/80). Thus, it must be noted that the said health education program is effective in the control of hypertension that promoted better clinical health outcomes, optimum cardiovascular health, better hypertension control, and favorable disease prognosis. Moreover, the said intervention is effective in the prevention of uncontrolled blood pressure, high cardiovascular risk, severity, complications, disease progression, unfavorable clinical outcomes, morbidity and mortality.

RECOMMENDATIONS

Based on the findings and conclusion of the study, the following recommendations are derived:

The researcher highly recommends this Community-Based Program for Hypertension in the Department of Health, Municipal Health Office of Bulacan, Primary Health Care Facilities such as Community Health

Center, Barangay Health Station and Rural Health Unit. Hypertension awareness program should be utilized in the community health settings to promote optimum cardiovascular health, promote behavior change, lifestyle modification, maintain appropriate health care behavior, health maintenance monitoring, establish healthy lifestyle, promote positive clinical health outcomes, promote favorable disease prognosis, prevent uncontrolled hypertension and maintain adequate blood pressure control among hypertensive patients. Likewise, health education strategy for hypertension is necessary to prevent risks of cardiovascular events, prevent morbidity and mortality, prevent unfavorable patient outcomes and delay disease progression.

Future researchers may extend the community-based program for hypertension to a longer period of time because the short duration of the intervention that is limited only to a ten-week lifestyle intervention exposure, is too short to further test its impact in the community. Likewise, the researcher also recommends future researchers to utilize other approaches or interventions to manage hypertension. Such approaches may include comprehensive-based program, integrated-based, home-based approaches, and hospital-based approach. Moreover, the study entailed focusing on random, two-group experimental design. Thus, future studies would be more significant if they were designed as randomized control trial, longitudinal experiment, cohort studies, structural equational model, double-blind experimental design, and cross sectional study among others.

Future researchers may utilize other parameters in the subsequent studies related to community-based program for hypertension. Such parameters include cardiovascular (cardiac rate, pulse rate, pulse pressure, mean arterial pressure, cerebral perfusion pressure, proportional pulse pressure), anthropometric/biometric parameters (body weight, height, waist circumference, body mass index), and biochemical analyses (cholesterol, total lipid profile, low density lipoprotein, high density lipoprotein, glycemia, nitrate). All of these parameters are scientifically proven to have direct effect on the presence of hypertension. The study is focused on the test of significant difference of mean scores before and after the intervention program. Thus, the researcher recommends

on studying test of significant relationship of mean scores in the degree of knowledge to the level of adherence, and to the blood pressure of hypertensive patients and vice versa.

Lastly, the researcher recommends using the same community-based intervention program for hypertension to the study participants in the control group as well as to other hypertensive and prehypertensive patients in the chosen research locale. This program can be the solution to hypertension as the priority and actual health problem prevalent in the said parish-owned community in Plaridel, Bulacan.

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