THE PREVALENCE OF NON-COMMUNICABLE DISEASES AMONG NON-TEACHING PERSONNEL OF THE UNIVERSITY OF SAINT ANTHONY: A BASIS FOR WORKPLACE HEALTH PROMOTION PROGRAM

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Introduction

Non-communicable diseases (NCDs), such as heart disease, stroke, cancer, chronic respiratory diseases and diabetes, are the leading causes of mortality in the world. These invisible epidemics are under-appreciated causes of poverty and hinder the economic development of many countries. The burden is growing - the number of people, families and communities afflicted is increasing. Common, modifiable risk factors underlie the major NCDs. These include tobacco, harmful use of alcohol, unhealthy diet, insufficient physical activity, and overweight/obesity, raised blood pressure, raised blood sugar and raised cholesterol [1].

In September 2011, at the United Nations General Assembly in New York, a political declaration was made to strengthen global and national responses to prevent and control NCDs.

In 2016, non-communicable diseases (NCDs) accounted for 67% of all deaths in the Philippines. The figures from 2015 show that every third Filipino (29%) can die before the age of 70 years from one of the four main NCDs (cardiovascular diseases, diabetes, chronic respiratory disease and cancer). This highlights a pressing need to make progress specifically on Sustainable Development Goals target 3.4, which aims to reduce premature mortality from NCDs by one third by 2030. NCDs also have development impacts on other Sustainable Development Goals, including:
Sustainable Development Goals 1 (poverty), 2 (malnutrition), 4 (education for sustainable lifestyles), 5 (gender equality), 6 (access to clean water), 7 (access to clean air), 8 (safe working environment), 10

(reduce inequalities), 11 (access to safe, green public places) and 12 (sustainable consumption and production [2].

In Bicol region, about 80% of deaths were caused by NCDs over the last few years. These included diabetes, different types of cancer, cardiovascular diseases, hypertension, or chronic lung conditions. [3]

Reducing the major risk factors for non-communicable diseases (NCDs) – tobacco use, physical inactivity, unhealthy diet and the harmful use of alcohol – is the focus of WHO's work to prevent deaths from NCDs. As part of the declaration, WHO was given a leadership role, and subsequently established the WHO Global Action Plan for the Prevention and Control of NCDs 2013–2020 (Global NCD Action Plan) adopted by the World Health Assembly in 2013 (1–3).

The Global NCD Action Plan included a global monitoring framework and nine voluntary global targets to be attained by 2025 (2). These targets are aligned to those for NCDs included in the 2030 Agenda for Sustainable Development adopted at the United Nations Summit on Sustainable Development in September 2015 and the WHO 13th General Programme of Work 2019–2023 (GPW13) adopted by the World Health Assembly in May 2018.[4]

Targets were also set regarding country capacity to deal with NCDs, in particular the availability of technologies and medicines to treat NCDs, and access to drugs and counselling to prevent heart attacks and strokes.

NCDs – primarily heart and lung diseases, cancers and diabetes – are the world's largest killers, with an estimated 38 million deaths annually. Of these deaths, 16 million are premature (under 70 years of age). If we reduce the global impact of risk factors, we can go a long way to reducing the number of deaths worldwide.

Prevention of NCDs is a growing issue: the burden of NCDs falls mainly on developing countries, where 82% of premature deaths from these diseases occur. Tackling the risk factors will therefore not only

save lives; it will also provide a huge boost for the economic development of countries.

The workplace is an important setting for health protection, health promotion and disease prevention programs. On average, Americans working full-time spend more than one-third of their day, five days per week at the workplace. An Accessed US Bureau of Labor Statistics April 12, 2016[5] while employers have a responsibility to provide a safe and hazard-free workplace, they also have abundant opportunities to promote individual health and foster a healthy work environment for more than 159 million workers in the United States.

The use of effective workplace programs and policies can reduce health risks and improve the quality of life for American workers.

Maintaining a healthier workforce can lower direct costs such as insurance premiums and worker's compensation claims. It will also positively impact many indirect costs such as absenteeism and worker productivity. To improve the health of their employees, businesses can create a wellness culture that is employee-centered; provides supportive environments where safety is ensured and health can emerge; and provides access and opportunities for their employers to engage in a variety of workplace health programs.

This research sought to describe the epidemiology of the major common risk factors for non-communicable diseases among non-teaching personnel, general services and security guards of the University of Saint Anthony, Iriga City. The study responds to the WHO'S recommendations on comprehensive and continuous risk factor surveillance as an essential component of the public health information system and a vital health promoting strategy in the control and prevention of non-communicable diseases.

Statement of the Problem

The purpose of this study is to determine the prevalence of risk factors for non-communicable diseases among nonteaching personnel,

general services and security guards of the University of Saint Anthony. The specific objectives are the following:

1.   What is the profile of the respondents in terms of:
a. Age
b. Gender

2.   What is the prevalence rate of the risk behavior of the respondents along with:
> a. Tobacco Smoking
> b. Alcohol Drinking
> c. Diet
> d. Salt Consumption
> e. Physical Activity
> f. Raised Blood Pressure
> g. Raised Blood Sugar Level
> h. Raised Cholesterol
> i. Lifestyle Advice

3.   What is the Incidence of Hypertension among the respondents?

4.   What Workplace Health Promotion Model can be applied to enhance the health of the respondents?

Research Methodology

This research used the descriptive method in which the questionnaire-checklist was the main instrument; in order to systematically, factually and accurately examine the prevalence of non-communicable diseases of the nonteaching personnel, security guards and general services of the University of Saint Anthony.

According to Medel as cited by Calderon and Gonzales (2006), descriptive method is defined as the description, recording, analysis and interpretation of present nature, composition or procedures of

phenomena. Additionally, it is a fact finding with adequate interpretation which is something beyond just data gathering. It follows logically after careful tendency, deviation, or of correlation. With this, they also noted that the most meaningful research is that which seeks to find out and to verify relationships between and among variables.

Findings

1.   Profile of the Respondents

The respondents' profile serves as a baseline data and significantly affects the findings of the study.

1.1 Gender. As shown in the table, a total of 44 or 42 percent are female and 60 or 57 percent are male.

1.2 Age. 33 or 33% of the respondents are between 20-30 years old, 29 or 28% are within 31-40 years age range, 35 or 3 % are within 41-50 years old and the remaining 7 or &% are within 51-60 years of age.

2.   Prevalence of Risk Behaviors

The Prevalence of this risk behaviors determine the respondent's susceptibility in acquiring non-communicable diseases.

a.   **Tobacco Smoking.** Table 3 shows the prevalence of smoking of the respondents. Out of 104 respondents, 21 or 20% said that they currently smoke some tobacco products such as cigarettes, cigars and pipes. 81 or 80% said that they do not. Out of 21 respondents, 10 or 48 % said they smoke tobacco products daily.

Most of the smokers said that they started smoking at the age of 21-25 years old with a frequency of nine or 43%, eight or 38% started smoking at the age of 15-20 while three or 14% they started smoking at 26-30 years old. All of the smokers use manufactured cigarettes.

Out of the 81 respondents who said they do not smoke anymore, and 24 smoked daily in the past.

On an average, 16 of the respondents (n=24) said that they sniff by mouth with 1-5 cigars a day, 4 smoke 6-10 cigars a day, 2 sniff 11-15 cigars a day while 2 of these respondents chew tobacco 1-5 per day.

Out of the 57 respondents said they did not smoke daily in the past, and 25 of them have used smokeless tobacco.

The respondents, when asked about how many days they have been exposed to someone in their homes who smoke during the past 7 days, 32 or 30.76% were exposed for a day, 14 or13.46% for 2 days and 3 days, respectively, eight or 7.65% were exposed for 4 days, 15 or 14.23% for 5 days, two or 1.9% for six days, 4 or 3.84% for seven days and twelve or 11.53% said that they were not exposed to smoker at home for the past 7 days.

b. **Alcohol Consumption.** The 104 respondents were also asked about their alcohol consumption, 84 or 80.76% said that they have consumed alcoholic drink such as beer, wine, fermented cider and the like while 20 or 19.24% said they have not.

Of the 84 respondents, 60 or 57.69% said that they have consumed an alcoholic drink within the past 12 months, one or 1.66% consumed alcohol daily, four of 6.66% consumed alcohol 5-6 days a week, 6 or 10% said that they consume alcohol 3-4 days and 1-2 days a week. 10 or 16.66% consumed alcohol 1-3 days per month, 23 or 38.33 % consumed alcohol for less than once a month and 10 or 16.66% never consumed alcohol for the past 12 months.

During the past 30 days, 14 (n=24) or 58.33% said that they have consumed alcoholic drink, two of them or 14.28 % said they consumed alcohol 1-2 times in 30days,and 12 or 85.71% consumed alcohol 3-4 times in 30 days.

c. **Eating Fruits and Vegetables.** When asked about how many days do they eat fruits, 56 or 53.84% eat fruits everyday, 24 or 28.57% eat fruits once to twice a week while the remaining 24 eat fruits three to five times a week. 61 or 58.65% said

that they eat a medium size piece. 43 or 41.34% eat an average of ½ cup on one of those days.

In a typical week, 73 or 70.29& eat vegetables everyday,22 or 21.15% eat vegetable once to twice a week while nine or 8.65% eat vegetable thrice to five times per week. 83 or 79.80% eat 1 cup of vegetables on an average while the remaining 21 or 20.19% eat half cup of vegetable on an average.

d. Salt Consumption. When asked about how much salt or salty sauce do they think they consumed, six or 5.76% said that they have consumed far too much, 29 or 27.88% consumed too much, 57 or 54.80% consumed just right amount, 24 or 23.07% have consumed too little while 4 or 3.84% consumed far too little and they do not know ,respectively.

65 or 62.5% said that it is important for them to lower the salt in their diet, 30 or 28.84% it is somewhat important, while 2 or 1.92% it is not important at all while 6 or 5.76% do not know.

92% or 88.46% said that salty sauce can cause health problems, seven or 6.73% said too much salt cannot cause health problems, while five or 4.80% do not know. 32 or 30.76% limit consumption of processed foods on a regular basis to control their salt intake, 23 or 22.11% said that they look at salt and sodium content food label, 14 or 13.46$ said that thy buy los sodium/salt alternatives, 22 or 21.15% use spices other than salt when cooking, 13 or 12.5% avoid eating foods prepared outside home.

e. Physical Activity. In physical activity, 43 or 41.34% said that their work, does it involve vigorous- intensity activity that causes large increase in breathing or heart rate like [carrying or lifting heavy loads, digging or construction work] for at least 10 minutes continuously, 24 or 55.81% said in a typical week, they spend 1-3 days doing vigorous physical activity, 16 or 37.20% spent 406 days a week, while the remaining three or 6.97% do vigorous physical activity every day. 28 or 65.11% spent 10-30 mins doing vigorous-intensity physical activity on a

typical day and 15 or 34.88% spent 1-2 hours on a typical day doing such physical activity (n=43).

47 or 77.04% involve moderate-intensity physical activity that cause little increase in breathing or heart rate. Out of 47 respondents, 15 or 31.91% spent 1-3 days in a typical week doing moderate-intensity physical activity, 25 or 53-19% spent 4-6 days in a week, while 14 or 29.78% do moderate intensity physical activity every day. 28 or 59.57% spent 10-30 mins doing moderate physical activity, 22 or 14.42% spent 1-2 hours and the remaining 7 or 4.55% spent 2 or more hours doing moderate physical activity.

12 of the respondents spent 30 minutes to 2 hours reclining or sitting on a typical day, 32 or 29.80% spent 24 hours, 26 or 25% spent 5-6 hours and the remaining 34 or 32.69% spent 7-8 hours sitting or reclining on a typical day.

f. Raised Blood Pressure
For History of Raised Blood Pressure, all respondents said that they had their blood pressure checked by a doctor or other health worker. 74 or 71% been told by a doctor with raised blood pressure. 51 out of this 74 respondents or 68.61% were first told in the past 12 months.

45 of the 74 respondents or 60.81% said that in the past two weeks, they were told with raised blood pressure while 29 or 39.18% said they were not.

g. Raised Blood Sugar Level. 54 or 51.92% said they had their blood pressure measured by a doctor or other health worker and 45 of them was told that they have a raised blood sugar or diabetes. 32 or 71.11% (n=45) were told about their raised blood sugar in the past 12 months.

28 or 62.22% said had taken medication for diabetes for the past two weeks prescribed by a doctor or other health care worker. 36 or 80% of 45 are currently taking antidiabetic drug prescribed by a doctor or other health worker. 13 of them have seen a traditional healer for

diabetes or raised blood sugar and 36 or 80% (n=45) are using traditional remedies to control their raised blood sugar.

h.   Raised Cholesterol Level. 31 out of 104 or 29.80% respondents have had their cholesterol measured by a doctor or a health worker while 73 or 70.19% have not. Out of this 31 respondents, 14 or 45.16% have a raised cholesterol level by a health worker, 12 or 38.70% said that that have been told about their raised cholesterol first within 12 months. In the past two weeks, 12 or 38.70% took oral treatment for raised cholesterol and seven or 22.58% are currently taking a herbal or traditional remedy for raised cholesterol.

i. Lifestyle Advice. 25 out of 104 respondents visited a doctor or health worker in the past 12 months. While 81 or 77.88% said had not.

j. Cervical Cancer Screening. Out of 56 female respondents, only three or 53.57% got tested for cervical cancer.

3. Incidence of Hypertension. Upon measuring their blood pressure, out of 104 respondents, 46 or 44.23% are hypotensive, 42 or 40.38% have normal blood pressure, 12 or 11.53% are in prehypertension stage, 3 or 2.88% are in hypertension stage 1 and 1 or 0.96% in in hypertension stage 2.

During the past two weeks, 14 or 87.5% they took a medication to control their elevated blood pressure.

Conclusions

 Based on the findings derived from this study, the following conclusions were drawn.

In terms of age and gender, a total of 60 or 57% are females. A total of 35 or 34% belonged to 51-60 years old.

21 out of 104 respondents are considered high risk because they smoke tobacco products at present. 11 out of 104 respondents are the only one not exposed to a smoker at home. So it makes the majority of the respondents at risk to develop lung cancer and other respiratory illnesses. 45 or 23.26% are at risk to have lung cancer because these are the combined number of respondents who smoke in the past and at present.

With the frequency of drinking alcohol, the respondents were found out to drink alcohol more frequently than the standard requirement which is one per day, no more than two at one time and no more than three in a week. 22 or 36.66% consume alcohol more than the standard requirement which can predispose them to have alcohol-related injuries.

Most of the respondents drink alcohol with meals having a frequency of 71 or 88.75%.

Most of the respondents are not meeting the standard requirement of fruits and vegetable consumption because according to the center for disease and prevention, at least 1½ to 2 cups per day of fruit and 2 to 3 cups per day of vegetables should be consumed but most of the respondents only consume 1 medium size piece and 1 cup respectively.

Most of the respondents use salt or salt sauce in cooking or in preparing food at home. On the other hand, the respondents reported that they rarely eat processed, they also think that they consume salt just right the amount and they also think that it is important to lower salt consumption.

Almost half of the respondents are doing vigorous intensity physical activity for 1-2 days that can predispose them to be at risk for cardiac problems. In addition, 34 out of 104 respondents are also at risk for sitting or reclining in a chair for 7-8 hours per day.

Most of the respondents were told by their healthcare providers that they have raised blood pressure. 45 or 60.81% said that they are taking medications to control their raised blood pressure. Majority of the respondents who were told by their health care providers that they have raised blood pressure are not using traditional or herbal medicine.

Almost half of the respondents have not had there blood sugar checked by a health care provider. Out of the respondents who had their blood sugar checked, majority were told that their blood sugar is elevated but not all are able to manage this with medications and home remedies.

The respondents should have their cholesterol levels checked on a regular basis because of other risk factors such as smoking, physical inactivity, and age.

Most of the respondents did not visit a doctor or health care provider within a 12-month period.

Out of 56 female respondents, only three, or 53.57% got tested for cervical cancer. Over half of the respondents have a blood pressure reading below or above normal. It is important for them to have it checked on a regular basis to prevent complications.

The suggested recommended proposed plan may be adopted.

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