

HEALTH CASES AS RESIDUUM OF OCCUPATIONAL DIFFERENCES; A CAUSE-EFFECT ANALYSIS

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ABSTRACT

This study traces the immediate and residual factors of health cases on the basis of occupational differences with the end in view of determining development projects or activities that would help improve health conditions of the workforce in the Province of Ilocos Sur.

The study is confined to 568 sample respondents, 220 of whom were drawn from six (6) District Hospitals, 219 respondents from eleven (11) Rural Health Units and 129 respondents from three (3) Private Clinics.

The most prevalent type of illnesses suffered from by the workforce were: respiratory disease, cardiovascular ailments, infections, digestive disturbances, urinary tract diseases, neuromuscular diseases, reproductive and gastrointestinal disturbances and symptoms of different illnesses.

Their age & educational attainment have significant effects on the health conditions of the workforce, while educational attainment, age, marital status and place of residence have also significant effects on their occupation.

INTRODUCTION

It is a common knowledge that the progress/success of an individual depends upon the stability of his work. and the stability of his work depends upon his knowledge of the work and more so upon his health. Health is wealth, a saying which means that good health is the most precious belonging of an individual which is essential to make life more productive and effective. People all over the world including the rich and the poor are of the same thought that good health is essential for human progress. There is both economic value and social justice in health.

It has been observed that there are so

many kinds of illnesses suffered from by almost every individual in the province, old and young. These illnesses never choose whom to attack, poor or rich, working or not working, male or female, just that, it comes during the most unexpected moment and time.

It is also a known fact that the progress of a community or a family depends upon the people and relative to this, progress is slow if the health of the workforce is not in good condition. It is then the aim of this study to trace the immediate causes of these illnesses which the workforce are suffering from.



OBJECTIVES OF THE STUDY

The study was an attempt to trace the immediate and residual factors of health cases on the basis of occupational differences with the end in view of determining development projects or activities that would help improve health conditions of the workforce in the Province of Ilocos Sur.

It also attempted to: analyze the socio-economic and demographic characteristics and their differences and also the working conditions of the workforce; determine the types and prevalence rates of illnesses suffered from by the workforce; estimate the degree of association, if any, of the prevalence rates of illnesses with the type of occupation of the workforce; and determine the occupation-related factors that would affect the health conditions of the workforce.

REVIEW OF RELATED STUDIES

Several studies have presented the results of their investigations although they are not directly related to the present study but they may in one way or the other can give insights and inputs to the present study.

According to Scharffenberg (Health and Home, 1981), an individual's susceptibility to stroke increases noticeably when **he** suffers from hypertension. The risk is four times greater than those with normal blood pressure, and the risk of coronary heart disease in overweight individuals center in a high blood pressure. elevated blood cholesterol and diabetes.

Paulino (1986) found out in her study that the increase of morbidity rate of heart diseases may be attributed to several reasons namely: 1) increased longevity of the population due to man's triumph against communicable diseases hence, people who would have died of dysentery in infancy, **of** diphtheria in childhood, or tuberculosis in early life reach the arteriosclerotic age

and diet instead of cardiovascular diseases; 2) improvement in the criteria for diagnosing heart disease and development **of** modern facilities; 3) drastic changes **in** social, cultural, economic and environmental aspects in the life-style of the people, the increased tempo in the mode of living, etc.

De Vera (1991) found out in her study that the following risk factors: age, work status, and work schedule were significantly related to the severity of cardiovascular diseases while sex, marital status, occupation, means of going to work, and length of time in going to work were not significantly related to the severity of cardiovascular diseases. She also found out that the kind of physical work and the kind of activities after major work significantly affect the severity of cardiovascular diseases.

Claudio (1991) found out also in her study the following: 1) majority of the respondent-households used piped-water facilities (NAWASA), pour-flush toilet facilities, drained their waste water in open canal and had their garbage collected by municipal garbage collector; 2) the respondent-households had sanitary and adequate water facilities, with sanitary toilet facilities, unsanitary drainage facilities and sanitary garbage disposal facilities. She found out also that the incidence rate of communicable diseases was not significantly influenced by the extent of environmental sanitation problems along the health facilities such as: water facilities, toilet facilities, drainage facilities, garbage disposal facilities and living space.

Acas (1993) found out that the hypertensive patients were predominantly male, married, over 48 years of age, of normal weight, elementary graduates, laborers and of salary range of P 3,000.00 and below, foods which are of high fat content, as well as coffee drinking are risk factors of hypertension and smoking habits in terms of frequency, type of cigarette smoked and use of tobacco pipe are risk factors of hypertension.

RESEARCH DESIGN

The figure below presents the research paradigm.

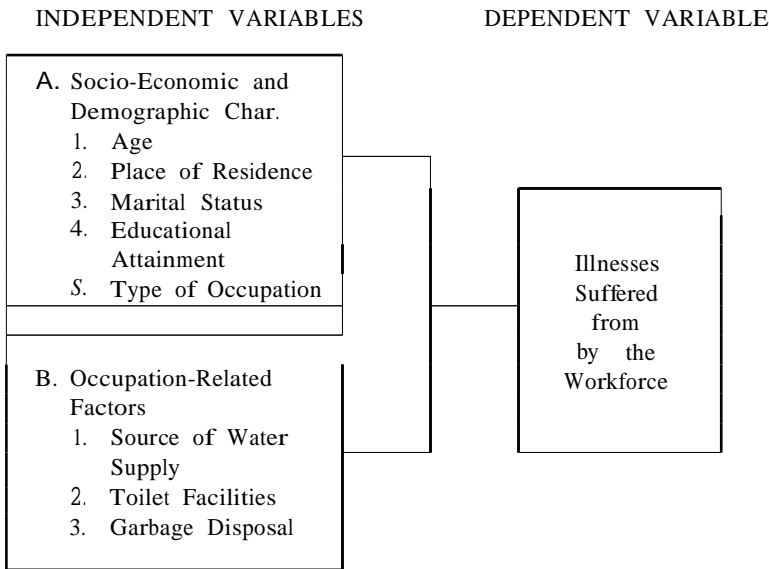


Figure 1. The Research Paradigm

METHODOLOGY

The study made use of the descriptive method of research. Interview technique was employed to gather the data needed. The respondents were chosen at random from the government hospitals/clinics and private clinics, all in the Province of Ilocos Sur. The patients were directly interviewed, but for those who were physically unable to be interviewed, the ones taking care of the patients provided the answers and data requested.

HYPOTHESES

The study looked into the validity of the following hypotheses:

1. Workforce with varying occupations differ in their socio-economic and demographic characteristics.
2. Age, marital status, place of residence, educational attainment, garbage disposal, water supply and

toilet facilities are significant **risk** factors to the health of the workforce.

STATISTICAL TREATMENT OF DATA

1. Frequency and percentages were used to determine the socio-economic and demographic characteristics of the respondents.
2. To analyze the difference of the socio-economic and demographic characteristics and working conditions of the workforce respondents, the Analysis of Variance was used.
3. To determine the significant effect of the risk factors to the health condition of the workforce and the degree of association between the illness and the type of occupation of the workforce, the Chi-square was used.

DISCUSSION OF RESULTS

I. Socio-Economic and Demographic Characteristics and Working Conditions of Respondents

Table 1. Socio-Economic & Demographic Characteristics and Working Conditions of the Workforce

Socio-Economic & Demographic Characteristics	Number	%
A. Current Age		
60 & above	89	15.67
40 - 59	186	32.75
20 - 39	251	44.19
Below 20	42	7.39
B. Place of Residence		
Poblacion	193	33.98
Rural Farm	308	54.22
Fishing Village	67	11.80
C. Marital Status		
Single	145	25.53
Married	367	64.61
Widowed	56	9.86
D. Educational Attainment		
Elementary graduate	142	25.00
High School graduate	178	31.34
College graduate	200	35.21
Above college	48	6.45
E. Type of Occupation		
Salary/Wage Employed	230	40.49
Self Employed	88	15.49
Unemployed	166	29.23
No Work	84	14.79

The results of the study revealed that most of the workforce respondents belonged to the 29-39 age group, majority came from the rural farm, majority of them were married, there were more college graduates than high school and elementary graduates and most of them were salary/wage earners.

II. Types and Prevalence Rates of Illnesses Suffered From by the Workforce

Table 2. Frequency and Percentage Distribution of Respondents by Type of Illness Suffered From at the Time of Investigation and Typcof Occupation

Type of Illness	Type of Occupation				Total	
	Salary/Wage Employed	Self Em- ployed	Unem- ployed	No Work	No.	%
A. Cardiovascular	31	14	25	5	63	13.20
B. Respiratory	76	38	56	32	202	35.56
C. Digestive	21	5	20	11	57	10.04
D. Skin/Neuromuscular	5	1	8	4	18	3.17
E. Metabolic	6	2	4	-	12	2.11
F. Hematologic	8	2	1	-	11	1.94
G. Urinary Tract	8	5	5	4	22	3.87
H. Gastrointestinal	6	3	5	1	14	2.46
I. Infections	27	6	16	14	63	11.09
J. EENT	-	2	-	2	4	0.70
K. Communicable						
Discase	16	4	4	4	28	4.93
L. Reproductive	5	2	6	2	15	2.64
M. NcoplasmS	2	-	5	1	8	1.41
N. Psychological	2	1	-	-	3	0.53
O. Allergy	2	-	3	1	6	1.06
P. Symptoms	14	4	8	3	29	5.11
Q. Nutritional	1	.	-	-	1	0.18
Total	230	88	166	84	568	
% of Total	40.49	15.49	29.23	14.79		00.00

The study revealed that the first most prevalent type of illness is the respiratory illness which is suffered from by 202 or 35.56% of the workforce and most of them were the salary/wage earner respondents. The second most prevalent was the cardiovascular illness which was suffered from by 75 or 13.20% of the workforce and most of them were also the salary/wage earners. Third were illnesses caused by infections which was suffered from by 63 or 11.09% of the workforce. Fourth was digestive disturbances, and this was also suffered from by 57 or 10.04% of the workforce.

II. Degree of Association of the Prevalence Rates of Illnesses With the Type of Occupation of the Workforce and Their Socio-Economic and Demographic Characteristics

The dcgrce of association of the prevalence rates of illnesses and the type of occupation of the workforce was tested by the chi-square test. The computed value was 10.0167 which was less than the tabular value of 16.92 at 5% level of significance. This led the researchers to reject the hypothesis, therefore there is no significant relation of

the prevalence rates of illnesses and the type of occupation of the workforce. This further means that the illnesses they were presently suffering from were not dependent upon the kind of job they were engaged in. Therefore, it is safe to say that the

root cause of the illness was not their present job, but maybe it was aggravated by their job so we can say that the illness they were suffering from was caused by the accumulated effects of so many factors that may have affected their health conditions.

Table 3. Summary of Analysis of Variance in the Socio-Economic and Demographic Characteristics of the Workforce

Source of Variation	SS	df	MSS	CFV
Between column	20760	3	6920	1.63
Within column	33962	8	4245.25	
Total	54722	11		

TFV: .05 = 4.07 -- NS

.01 = 7.59 --- NS

The computed F-value is less than the tabular F-value which means that the workforce with varying occupations do not significantly differ in their socio-economic and demographic characteristics.

IV. Occupation-Related Factors that Would Affect the Health Conditions of the Workforce

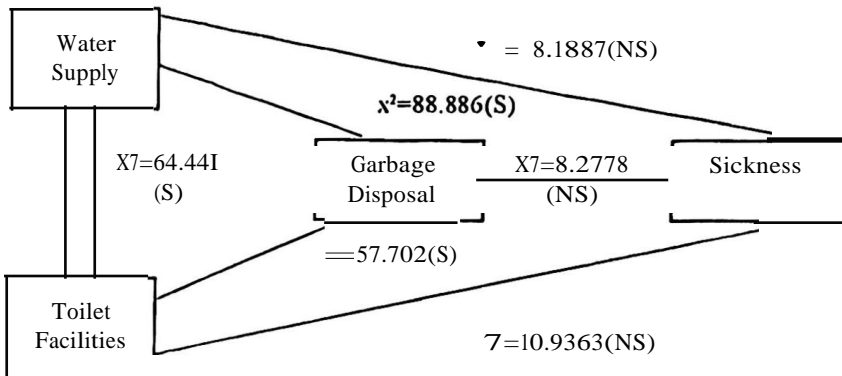
Table 4. Summary Table of the Chi-Square (X²) Value Showing the Relationship of the Risk Factors to the Sickness of the Respondents

Variables	Value of X ²	Interpretation
Water Supply	8.1887	NS
Toilet Facilities	10.9363	NS
Garbage Disposal	8.2778	NS
Place of Residence	3.4282	NS
Marital Status	4.3945	NS
Type of Occupation	10.0167	NS
Educational Attainment	19.59	S
Age	28.321	S

The result revealed that factors below: the source of water supply, toilet facilities, garbage disposal, place of residence, marital status, and type of occupation do not have significant effects on the illnesses which the workforce were suffering from, while educational attainment and age have significant effect on their sickness.

A clearer picture on the relationship of these factors mentioned about the illnesses of the workforce are shown in the figure below.

Figure 2. Diagram Showing the Dependency Relationship of Some Factors to the Sickness of the Workforce



It is clearly shown that water supply, toilet facilities and garbage disposal do not directly affect the health condition of the workforce.

Table 5. Summary of the Chi-Square (X²) Value Showing the Relationship of Some Factors to the Occupation of the Workforce

Variables	Value of X²	Interpretation
Educational Attainment	189.819	Significant
Age	93.629	Significant
Marital Status	20.566	Significant
Place of Residence	48.008	Significant

The findings show that all of the mentioned variables above have significant effect on the occupation of the workforce.

Figure 3. Diagram Showing the Dependency Relationship of Some Variables to the Sickness and Occupation of the Workforce

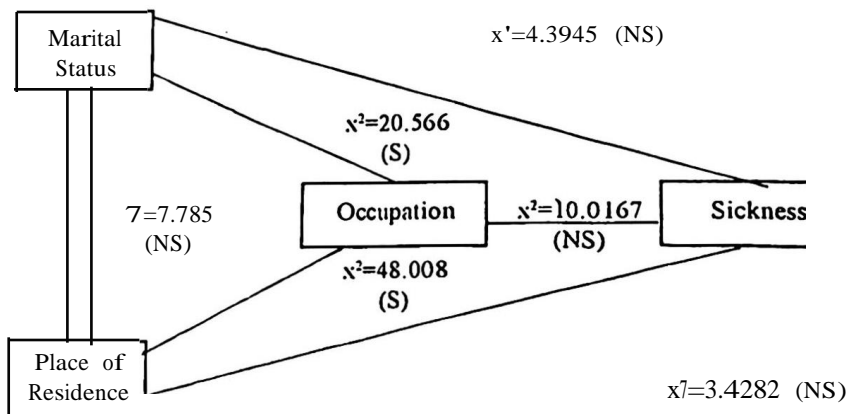
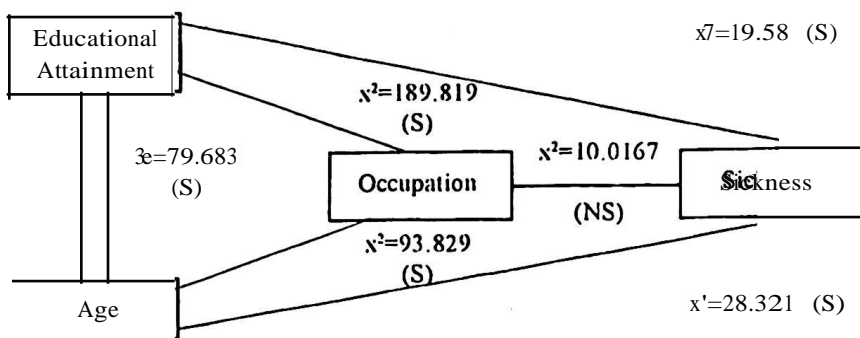


Figure 4. Diagram Showing the Dependency Relationship of Some Variables to the Sickness and Occupation of the Workforce



The diagram in Figure 3 presents the direct relationship of the marital status and place of residence to the occupation and sickness of the workforce. The direct relationship of these two factors is not significant to the sickness but they are significantly related to their occupation directly.

The diagram in Figure 4 also presents the relationship between occupation and sickness to the educational attainment and age of the workforce. It is shown that the direct and indirect relationship of the educational attainment and age of the workforce to their occupation and sickness of the workforce is significant but still the type of occupation is not significantly related to the sickness.

V. Health Trainings Attended by the Workforce

Table 6. Health Trainings Attended by the Workforce

Kind of Health Trainings	No.	%
Consultation Meetings	8	21.62
Mother's class	2	5.41
Drive Against Tuberculosis	1	2.70
First Aid Seminar	2	5.41
Drive Against Drug Abuse	1	2.70
Barangay Health Worker	1	2.70
Immunization Lecture	1	2.70
Seminar in Primary Health Care	19	51.36
Family Planning	1	2.70
Nursing Aide	1	2.70
Total	37	100.00

It was revealed by the respondents that there were health trainings conducted in their barangays by the Rural Health Units Employees and Volunteers (PTOW's) but despite of these kinds of trainings held in their own barangays, still majority of the respondents did *not* find time to attend the said kinds of trainings. This implies that because of

their non-exposure to such kind of health trainings they could not apply first aid or emergency health care immediately to their own families, or even to themselves whenever it is needed, and because of this lack of health knowledge on the part of the workforce, and because of their negligence sometimes to their health, their sickness becomes worse and worse until this could not be cured anymore.

CONCLUSIONS

Based on the findings, the following conclusions were drawn:

I. Socio-Economic and Demographic Characteristics

- a. Majority of the workforce suffering from different types of illnesses belonged to the adolescent age: from the rural farm; married; finished high school and college and salary/wage employed.

II. Prevalent Types of Illnesses Suffered From by the Workforce

- a. The prevalent type of illnesses suffered from by the workforce were: respiratory diseases, cardiovascular ailments, infections, digestive disturbance, symptoms of different illnesses, urinary tract infections, neuromuscular diseases, reproductive and gastrointestinal disturbances.

III. Factors That May or May Not Have Significant Effect

A. To Their Sickness

1. Water supply, toilet facilities, garbage disposal, place of residence, marital status and type of occupation do

not have significant effects on their health conditions.

2. Educational attainment and age have significant effects on their health conditions.

B. To Their Occupation

- I. Educational attainment, age, marital status and place of residence have significant effect on the occupation of the workforce.

IV. Degree of Association of the Prevalent Rates of Illnesses With the Type of Occupation of the Workforce and their Socio-Economic & Demographic Characteristics

- a. The occupation of the respondents has no significant relation with the health condition of the workforce.
- b. The socio-economic and demographic characteristics of the workforce do not have significant differences.

V. Trainings Attended by the Workforce

- a. Very few of the workforce respondents had attended or participated health trainings conducted by the Rural Health Units employees in their barangays or in their municipalities.

RECOMMENDATIONS

Based on the conclusions drawn, the following recommendations were drawn:

- I. While marital status and place of residence do not have significant effects on the health conditions of

the workforce directly, it is always safe for everybody to be pre-cautious and give extra care in dealing with married people especially the husband and wife relationship, and that their place of residence should be maintained especially in cleanliness and sanitation.

2. Although water supply and toilet facilities do not also significantly affect the health condition of the workforce directly, it is always safe to boil the water they drink and to have safe toilet facilities.
3. Since educational attainment and age significantly affect the health condition of the workforce directly, it is therefore recommended that the members of the workforce should seek job which is fitted for their age and educational attainment so as to avoid tension and other traumatic experiences which may cause their illness.
4. Since type of occupation does not significantly affect directly the health condition of the workforce, they should not forget their own capabilities so as not to abuse their

health, and they should always go for check-up-regularly and follow doctor's prescriptions/advice so as not to worsen their illnesses.

5. Although garbage disposal does not directly affect the health condition of the workforce, the respondents should still see to it that they must maintain cleanliness and sanitation in their surroundings by making their garbage disposal safe for them and their neighborhood.
6. The Department of Health in coordination with the Barangay and Municipal Officials should periodically conduct health trainings so as to inform the people of the community the necessary health care, emergency measures and health tips and pointers.
7. The Rural Health Units employees and Barangay Health Workers should closely work together in the practice of the different health habits and encouraging the barangay people especially the housewives and out of school youth to attend or participate in varied health trainings whenever they are given a chance.

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