Health Status of Community Resident Near Industrial Zone in Bauan, Batangas

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Abstract *– The study on the health status of the community residents near the industrial zone in Bauan, Batangas is intended to determine the health hazards and health problems caused by industrial plants. The study utilized qualitative and quantitative type of research. Standardized questionnaire as well as self-made questionnaire to the community residents who had been exposed to industries were used as instrument. The most common health hazards caused by the industrial plants are cough and colds for air and chemical pollution; headaches for sound pollution; and abdominal pain for water pollution, and hypertension, asthma and miscarriage is the health problems most acquired. Through this study, the researchers found out that community people living in Bauan, Batangas near industrial plants are seldom exposed to different types of pollution, and their health was not really affected despite living near industrial plants. Finally, a module on health problem management had been developed to improve the health status among residents living near the industrial zone by increasing their knowledge regarding health promotion and preventive measures against different types of environmentally-caused illnesses.*

Keywords *– Health Status, Industrial Zone, Health Problems*

INTRODUCTION

Modernization of the economy has an equivalent portion to the development of different industries that can greatly affect the health of the people surrounding the industrialized area.

Industrial plants such as shipyard, chemical processor, and food manufacturer are the industries who are using different chemicals and toxins. Most of the industries have a corresponding effect to the health of any individual that are exposed to the pollution produced by the industries. There are such diseases commonly acquired within a long-term exposure even in a short - term exposure to outdoor pollutants. The environmental pollution consists of air, sound, chemical and water pollution which are the by-products of the manufacturing companies who are using chemicals. The location of the people living near the industrial plants or within the industrial zones are the ones who have the great capacity that can affect the quality of their life.

Alexandria [1] defined industrial zone as a "tract of land at a distance from city center that is designed for a cluster of businesses and factories". While Marshall [2] said, industrial zone was initially introduced as a term to describe as an area where it is surrounds industrial plants.

Industrial plants are buildings where there are industrial labors. Also, it is where the products are manufactured or processed that involves the use of chemical processes such as chemical reactions and refining methods to produce a wide variety of solid materials.

Bauan is a one of the most industrialized municipality in Batangas. There are several industrial plants located among the different barangays in Bauan. More than 30 industrial establishments are processing and producing chemicals depending to the type of industry that may affect the health of the community people.

Residents dwelling on such toxic and harmful environment necessitates evaluation of their health condition and seeing their healthput at risk upon their tenancy on a hazardous atmosphere. This is timely and relevant as issues regarding environment health.

Given the possible risks in the health status of the residents, the researchers pondered this study to divulge understanding and knowledge in order to have possible solutions about the exposures to different hazardous substance and it's cause and effect between environmental pollution and health. The foremost accountability is to have an expansion of trust for good cooperation of the respondents, gain the resident's awareness, to provide information on how to manage environmental factors, health prevention and health promotion.

Theoretical Framework

Environment and Health, this study was anchored in David B. Resnik and Christopher J. Portier, a Bioethicist and a Director in National Institute of Environmental Health Sciences.

Resnik and Portier's [3] Environment and Health theory from the Hasting Center, a theory from year 2008, posited that "there is a growing body of evidence that the environment can affect human health and that human health care can affect the environment. All organisms depend on their environments for energy and the materials needed to sustain life: clean air, portable water, nutritious food, and safe places to live." It is associated in the recent study because of the effect of the different pollutions in the environment that may put allied risk in human health.

Even though, environment withstands individual's life, it can also cause health problems or disease. He also states that "lack of basic necessities is a significant cause of human mortality. Environmental hazards increase the risk of cancer, heart disease, asthma, and many other illnesses. These hazards can be physical, such as pollution and food contaminants, or they can be social, including dangerous work conditions and poverty. Activities that promote health and extend human life can have adverse environmental effects. For example, food production causes environmental damage from pesticides and fertilizers, soil salinization, waste produced by livestock, carbon emissions from food manufacturing and transportation, and overfishing.

Conceptual Paradigm

The theoretical paradigm illustrates on the next page is the overview of the study. In the first box, it determines the health hazards produced by the industrial plants in terms of air, sound, chemical and water pollution.

Figure 1 shows how industries affect the health of the people in the community with regard to the environment around them. Then, there is a health problem acquired related to presence of industries. It would identify the diseases present in the community as a result of exposure to different types of manufacturing company. Furthermore, in the third box it shows the health status of the community residents. It illustrates the health condition of the community people living near industrial zone in different aspects and ways a person can acquire with relate to hazardous chemical produce by the industrial plant. Knowing the health condition among the residents a module on health problem management developed in order to prevent the burden of illness from the health hazards in relation to living near the industrial plants.

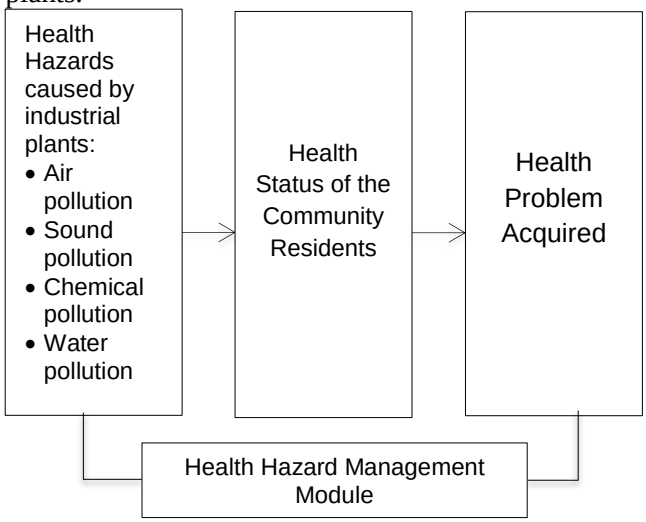

Figure 1. Health Status of Community Residents Near Industrial Zone in Bauan, Batangas

OBJECTIVES OF THE STUDY

This study focused on determining the health status of the community residents near industrial zone in Bauan, Batangas. Specifically, it determined the health hazards caused by the industrial plants, in terms of air, sound, chemical and water pollution. It also identified the health problems acquired by the residents in the industrial zone. Lastly, the researchers developed a module on health hazard management that can enhance the health status of the community residents.

METHODS

Research Design

To achieve the objectives of the study, the researchers utilized both quantitative and qualitative research design. Quantitative research uses deductive reasoning to synthesize data and focuses on a single reality which can be measured and generalized. It was used in identifying health hazards caused by industrial plants in terms of air, sound, chemical and water pollution. It was also used in identifying the health problem acquired by the residents in the industrial zone. However, qualitative design was used to determine the health status of the community residents living near industrial zones. Qualitative design focused on direct exploration, analysis and description of particular phenomena. In order to ensure that this study follows a clear path, the researchers will be guided by Polit & Beck [4] approach in analyzing qualitative data.

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Participants

The researchers conducted this study in four barangays: Aplaya with 43 respondents out of 8,043 total population and 50 m distance from Industrial plants, Bolo with 32 respondents out of 5,311 total population and 200 m distance from industrial plants, San Miguel with 17 respondents out of 1,904 total population and 2 m distance from industrial plants, and lastly San Roque with a 78 number of respondents out of 5,490 and 20 m distance from industrial plants. The total respondents are 170 out of 20, 748 total population of four barangays. Using 35 percent effect size and an alpha level of 5percent, the sample of the study consists of 170 (using a+ Power 3.1.9.) In addition, the sample will be the selected at random using stratified proportional allocation. Respondents are ages eighteen years old and above who are living in industrial zone for at least two years. The researchers used ten informants in the qualitative part.

Instruments

The researchers utilized questionnaires as the main tool in gathering data. The questionnaires consist of three parts. The first part is a self-made rating system. On the presence of health hazards produced by industrial plants due to air, sound, chemical and water pollution. The second part is a self-made checklist of the health problem acquired by people living near industrial zones. The third part is a standard health assessment form used by the Thornhill Naturopathic Health Clinic, which examined the perceived health status of community living near industrial zone.

Procedures

The researchers sent a letter to the Dean, asking for permission to conduct research. Thereafter, a second letter was sent to the municipal hall in Bauan, Batangas City, to ask for permission to conduct research among their constituents. The questionnaires underwent validation by the group's adviser, panelists, grammarian, statistician and Dean, who reviewed each question thoroughly and checked the questionnaires' internal and external validity for errors that could affect the results. Prior to being asked to fill up the questionnaires, the respondents were oriented about the study in order to make them feel at ease and facilitate more accurate responses.

Analysis

The data were analyzed through descriptive statistics where frequency distribution, weighted mean and composite mean were the statistical formulae used. The items where then verbally interpreted based on the scales. To get the frequency distribution for health problems caused by air, sound, chemical and water pollution, highest and lowest scores for each category were recorded. Highest score was subtracted with the lowest score and equally divided to come up with an interval.

The given scale was used to interpret the result of the data gathered on health hazards: 4.50 – 5.00 – Always (A); 3.50 – 4.49 – Often (O); 2.50 – 3.49 – Sometimes (So); 1.50 – 2.49 – Seldom (Se); 1.00 – 1.49 – Never (N)

Qualitative Analysis

The tool utilized Polit & Beck [4] who developed an approach in data analysis, specifically in analyzing qualitative data.

Transcribing of informants' recorded interviews

Experienced transcribers were not hired for the transcription of the interviews, instead the researchers wee the very people who transcribed all data and then compiled it for brainstorming.

Rechecking transcribed data

Once gathered, transcribed data were read and rechecked by the researchers for completeness and correctness of information. After then, it was all set for analysis.

Reading and analyzing data gathered

Transcribed data were reread, and then significant answers were highlighted and analyzed.

Extracting significant statements from transcribed data

In preparation for data analysis, significant statements were extracted from the transcribed interview, compiled and were utilized to formulate categories based on the significance of the informants' statements.

RESULTS AND DISCUSSION

Table 1. Health Hazards Caused by Air Pollution

Indicators	WM	VI	Rank
1. Difficulty of breathing	1.93	Se	2
2. Dryness of skin	1.70	Se	3
3. Sore eyes: eye irritation and inflammation	1.66	Se	4.5
4. Cough and colds due to inhalation of dust/particles	2.67	So	1
5. Throat irritation	1.66	Se	4.5
Composite Mean	**1.92**	**Se**	

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Table 1 shows the health hazards caused by air pollution, with a composite mean of 1.92 and verbally interpreted as seldom. Industrial plants produced health hazard such as smoke in the environment but there is no documented evidence that it can directly affect the health of community people near the area.

Cough and colds due to inhalation of dust/particles is not connected in living near the industrialized area, thus cough and colds are the most common problem in the community, which is associated with the environmental irritants and allergies. In the study of Cable News Network [5] persistent cough is caused by several types of pollutants and irritants in the air even in a short of term exposure to fumes.

The Air Quality Index (AQI) [6] is used to assess the level of air pollution and its goal is to distinguish what is the air quality zones in the public [7]. 20.83 is the air quality index of Batangas which means the air quality is satisfactory and air pollution poses no risk [8]. Even though there is low presence of polluted air causing cough, colds, difficulty of breathing, dryness of skin, sore eyes and throat irritation yet it is not directly caused by the industries present in the area.

Additionally, industrial plants complied with the DENR laws and policies, particularly "Republic Act No. 8749, otherwise known as the Philippine Clean Air Act of 1999, focuses primarily on pollution prevention and enforces a system of accountability for adverse environmental impacts to heighten compliance to government environmental regulations."

Table 2 below shows the health hazards caused by sound pollution with a total composite mean of 1.55. Industrial plants present in Bauan, Batangas no longer produced sound pollution. According to the respondents, they experienced headache, irritation due to loud noise, and disturbances in sleeping pattern caused by neighbourhood noise, traffic, constant used of electronic gadgets, stress, and aging which are not caused by the industrial plants.

Table 2. Health Hazards Caused by Sound Pollution

Indicators	WM	VI	Rank
1. Irritation due to loud noise	1.68	Se	2
2. Ringing in the ear	1.25	N	4
3. Headache	1.96	Se	1
4. Hearing difficulties	1.21	N	5
5. Disturbances in sleeping pattern	1.64	Se	3
Composite Mean	**1.55**	**Se**	

Noise index is important to assess and monitor the noise level in overall environmental quality to evaluate its risk to human health [9]. The noise quality index of Batangas is 33.33, which means the noise quality is low and sound pollution show no threat [8]. Thus, this evident that industries in Bauan, Batangas used noise reduction measures to eliminate sound pollution to the community residents.

Sound or noise pollution from industrial plant way back is a major source of unwanted noise to nearby residences, due to it better noise reduction measurements or noise barrier has been enhanced. Industries worked with many plant engineers, different standard dimensions or equipment to prevent and emit sound pollution [10]. Ringing in the ear and hearing difficulties are not experienced with the respondents living near industrial zone.

Table 3 illustrates health hazards caused by chemical pollution, with a composite mean of 1.89 and verbally interpreted as seldom. Cough and colds experienced by the community residents are caused by environmental irritants such as allergens present in the air and it is not related to chemical pollution produced by the industries. This mean that residents living near the area were not exposed to health hazards caused by chemicals.

Table 3. Health Hazards Caused by Chemical Pollution

Indicators	WM	VI	Rank
1. Skin acne	1.34	N	4
2. Itchiness and irritation of skin	1.38	N	3
3. Scald skin	1.08	N	5
4. Colds	2.82	So	1.5
5. Cough	2.82	So	1.5
Composite Mean	**1.89**	**Se**	

Chemical pollution is produced through air pollutants. Asbestos is a toxic hazard and the effect to an individual who inhales the fibers are chest pain, difficulty in breathing, cough and other symptoms. In industrial sites asbestos is one of the chemicals that are widely used because of its low price. [11]. However, according to [8] 20.83 is the air quality index of Batangas which means the air quality is satisfactory and air pollution poses no risk. The researchers denote that industrial plants eliminated chemical pollution to the environment.

In the study of Hoffman [12], exposure to toxic chemicals even at low levels can cause tremendous harm to humans. However, many of the health risks from the toxins used required studies considering long-term health effects. Although skin acne, scald skin, itchiness and irritation of skin are present in the community it is not directly caused by the chemical pollution produced by the industrial plants.

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Table 4. Health Hazards Caused by Water Pollution

Indicators	WM	VI	Rank
1. Abdominal pain	1.58	Se	1
2. Diarrhea	1.49	N	2
3. Nausea	1.25	N	3.5
4. Vomiting	1.25	N	3.5
5. Rashes	1.23	N	5
Composite Mean	**1.36**	**N**	

Table 4 shows the health hazards caused by water pollution, with a composite mean of 1.36. Abdominal pain is seldomly experienced by the respondents, which does not directly cause water pollution produced by the industrial plants. Based on the respondents, it is usually caused by the diet, improper food sanitation and contaminated drinking beverages, which are not related in living near industrialized area because the result shows that industries never caused water pollution. This analysis is supported by the water quality index of Batangas, which is 41.67, which means that the water quality is satisfactory and water pollution poses no risk [8]. Water quality index (WQI) is effectively used to assess and formulate to monitor the water quality zones in community [13].

Republic Act No. 9275, industrial plants are complying in this law, which means that they are maintaining the water quality level within normal range. The body of water near the industry is polluted with garbage, which is caused by people and not by the industries. Diarrhea, rashes, nausea and vomiting show in the result that it is not directly caused by the industrial plants.

Table 5. Summary of Health Hazards Caused by Industrial Plants

Indicators	WM	VI	Rank
1. Air Pollution	1.92	Se	1
2. Sound Pollution	1.55	Se	3
3. Chemical Pollution	1.89	Se	2
4. Water Pollution	1.36	N	4
Composite Mean	**1.68**	**Se**	

Table 5 presents summary about health hazards caused by industrial plants, with a composite mean of 1.68 and verbally interpreted as seldom. Air and chemical pollution are the most feasible health hazard brought by the industries. However, 20.83 is the air quality index of Batangas, which means the air quality is satisfactory and air pollution poses no risk [8]. Although there is low presence of polluted air, it is not directly caused by the industries present in the area.

The least two health hazards, which are not totally the caused by the industrial plants are sound and water pollution. The results showed that sound pollution is caused by different factors and not from the industrial plants. Industrial plants no longer caused water pollution. This is evidenced by water quality index of Batangas which is 41.67, means that the water quality is satisfactory and water pollution poses no risk [8]. Also, industrial plants complied to Department of Environment and Natural Resources laws to prevent water pollution.

Table 6 presents the health problems that are acquired by the residents living near industries. Hypertension is the most common health problem encountered by the respondents, which is not directly caused by the industries present in the environment. According to the community residents they experienced increased blood pressure due to aging, diet, stress, and family history.

Asthma is the second health problem experienced by the community residents living near industrial zone. This is associated with the health hazards produced by the industries such as smoke that altered the normal ventilation, which can cause asthma. According to Pongdee [14], there are certain induced chemicals that can trigger asthma and results to wheezing and difficulty of breathing as well as the other symptoms associated after exposure to air pollutants and other airborne substances.

Table 6. Health Problems Acquired by the Residents near Industries

Health Problems	Yes		Rank	No	
	F	%		F	%
1. Asthma	53	31.2	2	116	68.2
2. Asbestosis	10	5.9	6.5	160	94.1
3. Birth defects	5	2.9	8.5	165	97.1
4. Bronchitis	5	2.9	8.5	165	97.1
5. Chemical poisoning	0	0	12.5	170	100
6. Cholera	2	1.2	11	168	98.8
7. Chronic Obstructive Pulmonary Disease	0	0	12.5	170	100
8. Diabetes	23	13.5	4.5	147	86.5
9. Diarrhea	23	13.5	4.5	147	86.5
10. Hypertension	62	36.5	1	108	63.5
11. Infertility	10	5.9	6.5	160	94.1
12. Lung cancer	0	0	12.5	170	100
13. Miscarriage	29	17.1	3	141	82.9
14. Otitis	3	1.8	10	167	98.2

The third common health problem is miscarriage. According to the respondents the causes of miscarriage are their lifestyle during pregnancy, smoking, infection and other factors that are not related to presence of industries. Aside from the identified health problems, the respondents that are not affected have higher percentage than those who are affected.

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Health Status of the Community Residents

There are many variables influencing a person's health status. These factors may or may not be under conscious control. People can usually control their health behaviors and can choose healthy or unhealthy activities. In contrast, people have little or no choice over their genetic makeup, age, sex, culture and sometimes their geographic environment. About this, the following themes were formulated based on interview utilizing standardized questionnaire.

Theme 1: Biological Dimension

Subtheme 1: *Difficulty in maintaining good health status*

There is an association between maintaining good health status and how the community residents complied with their past and present health concerns. WHO defines health status as "Health is a state of complete physical, mental and social well-being and not merely the absence of disease." Genetic makeup, sex, age and developmental level all significantly influence a person's health not only the environmental hazards that they are being exposed to.

Most of the respondents stated that *"We are diagnosed with hypertension, asthma and diabetes due to family history, aging, and diet. We are not able to have regular checkups in the hospital and even in the health center, we are not also regularly taking our medication due to financial problem and insufficient knowledge about how to manage the health problems that we have."* It demonstrates that they have difficulty of exertion in sustaining health wellness in relation to different aspects such as financial constraints and knowledge inadequacy.

These two aspects affected on how they can maintain their well-being. Lack of resources and cognitive information distresses the health prevention, promotion and restoration as it plays a significant part in an individual health.

Subtheme 2: *Lack of health compliance*

One of the factors that are related in difficulty in maintaining good health status is non-compliance, in which it is the first and foremost importance to stay healthy and avoid health complication. *"We are not able to have regular checkup and take our health maintenance because of different reasons"* as stated. The researchers asked the reasons of hospitalization among the respondents. Most of the respondents stated that *"Most of the time when we experienced illnesses showing signs and symptoms that is alarming to us such as accidents, increase in blood pressure, wounds that do not heal because of diabetes, and miscarriage.* The reasons stated by the respondents are financially related, knowledge deficit, emotional concern, lack of motivation and religious beliefs.

Respondents demonstrate lack of concern with their health unless it became serious illness or when they experience intolerable pain. Most of the individual's health-seeking or maintenance behavior lacks congruence with the sanctions by the healthcare provider. Many respondents have other chronic conditions or diseases acquired that have been diagnosed, which are hypertension, miscarriage, diabetes and asthma which is the top 3 most acquired diseases in Bauan. Abiding the prescribed therapeutic regimen, noncompliance is directly associated with poor treatment outcomes.

Theme 2: Psychological Dimension

Subtheme 1: *Fear of health effects of industrial plants*

Living near industrial plants affects daily life depending on how they perceive it. Respondents are concern with their health in relation to the pollution or hazards that are being produced by the industrial plants, which result in risk, threat or fear that has a vital response to physical and emotional state, which may alter our functions.

As evidenced by one of the statements of the respondent *"Few years ago, we experience dark smoke from industrial plants, but as of now, it is better. Although, industrial plants still produce smoke and we are also afraid how it can affect our health."* Another interviewee stated, *"We don't have enough knowledge on how it alters our environment and health, we are concern to its wide effects because of numerous industrial plants to the point it is walking distance".* The distance of the community residents from the industrial plants ranges from 2 to 200 meters. Smokes are evident as the researcher had an observation to different industrial plants that has a prodigious effect to the health. It shows that they have concerns and experiencing fear as they are exposed to some environmental hazards produced by the industrial plants such as air and chemical pollution.

Mind-body interactions can affect the health status positively or negatively. Emotional responses to stress affect body function. Prolonged emotional distress may increase susceptibility to organic disease or precipitate it. Emotional distress may influence the immune system through central nervous system and endocrine alterations. Alterations in the immune system are related to the incidence of infections, cancer and autoimmune diseases [15].

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Subtheme 2: ***Psychological effects of industrial plants***

The researchers investigated the psychological impact of industrial plants. Relationship between psychological well-being of individuals and industrial plants has variety of effects. One hundred seventy respondents have been completed surveys measuring the range of demographic and psychological well-being variables. Interviewees conveyed unease, anxiety, and irritation.

The analyses of the obtained data revealed and supported by; *"I am unease living in a municipality with industrial plants". "We grew up here but that doesn't mean we're used to it, it actually irritates us, instead of lessening the industrial plants because of its effect, it's growing and multiplying".*

These rapid changes and conditions of environment increase the psychological disturbances. Such developments create new challenges for the residents, which may have and negative effects on their physical and psychological well-being. The over emphasis on production and negligence of the health and safety from various types of hazards resulting in a variety behavioural problem and physical. The employees who perceived their work and its physical and psycho-social environment as to be adequate and healthy maintained relatively better overall mental health but if not, it will be altered [16].

Theme 3: External Dimension

Subtheme 1: ***Insufficient environmental sanitation and practices affecting health***

The environment that we have played a vital role in the health status of an individual. The kind of environment that we have should be clean because it can affect the health of the community. Sanitation promotes hygiene and prevents hazards (physical, microbiological, biological or chemical agents of disease) of wastes by proper treatment and disposal of waste. Health practices are not just a choice, but social, economic, and environmental factors have an influence on the decisions people make about their health. Capital Health [17] states that here is a growing recognition that personal life "choices" are greatly influenced by the socioeconomic environments in which people live, learn, work and play.

Most of the respondents stated, *"We experienced common health problems such as fever, cough, colds, abdominal pain due to air pollutants, poor sanitation in the environment and contaminated food or beverages. There is also a presence of polluted sea in our Barangay because of the different kinds of waste that are being thrown by the people, as a result we are all affected."* Conditions relating to public health, especially the provision of clean environment, drinking water and adequate sewage disposal will avoid these but as the researchers observed several areas of groundwater and surface water is contaminated because of improper waste disposal and lack of initiation to prevent water pollution that affects the environment and the health of the community. Currently, people are becoming increasingly aware of their environment and how it affects their health and level of wellness.

Sanitation generally refers to the provision of facilities and services for the safe disposal. The word 'sanitation' also refers to the maintenance of hygienic conditions, through services such as garbage collection and wastewater disposal. Inadequate sanitation is a major cause of disease world-wide and improving sanitation is known to have a significant beneficial impact on health both in households and across communities [18]. Personal Health Practices and Coping Skills refer to those actions by which individuals can prevent diseases and promote self-care, cope with challenges, and develop self-reliance, solve problems and make choices that enhance health [17].

Subtheme 2: ***Exposure to industrial plants***

Environmental hazards can affect any individual by being exposed to the different pollutions that can harm the health of the people, particularly the one who are living near industrial zone. Industrial plants affect the health of residents because of the toxic products produced by the different causing factors of pollution to expand and contaminate all the resources and make the environment hazardous. Hence, if our environment is polluted, specifically air, sound, water and chemical pollution, it will affect the health of human.

Most of the respondents interviewed by the researchers from the industrial zone were the residences living in the community for more than 31 to 40 years. *"Living here in a long time shows that we've experienced and exposed to some environmental hazards produced by the industrial plants such as the pollution coming from air and chemicals that has an adverse effect to our health such as cough and colds due to inhalation of dusts/particles."* As verbalized.

As new industries develop, existing industries expand, and new technology is introduced, the environment is increasingly placed at risk and hazards to human health arise. Chemicals have become an indispensable part of human life, sustaining activities and development, preventing and controlling many diseases. Despite their benefits, chemicals may, especially when

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misused, cause adverse effects on human health and environmental integrity. Widespread application of chemicals throughout the world increases the potential of adverse effects [19].

Health Hazard Management Module

Based on the findings of our study, a Health Hazard Management Module was developed to enhance the health status of the community residents. It was intended to provide information regarding the different hazards brought about by living near industrial zones. In addition, knowledge concerning health issues including health hazard management are also included in this module. Thus, the researchers will be responsible to disseminate this module to the community near industrial zone.

CONCLUSIONS AND RECOMMENDATION

The health status of residents is not directly affected by the presence of the industries within the area. Industrial plants no longer pose health hazards to community residents. Health problems acquired by the residents within the industrial zone were not directly related to presence of the industries.

The proposed module on health hazard management can be utilized. Health Centers of each barangay should do the share in making health services available and accessible through advocacy and proper management of health programs and services. The residents shall have better initiative in participating in the programs and services that are being implemented or held by the health care providers in their barangay for better health prevention and health promotion.

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