

Knowledge and Preventive Practices on Community-Acquired Pneumonia Among Residents in General Santos City

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Abstract. This descriptive-correlational study described the profile of respondents and determined the association between knowledge and preventive practices regarding Community-Acquired Pneumonia (CAP) among residents in ten selected barangays in General Santos City. A validated self-made pen-and-paper test and survey questionnaire were used to determine the demographic profile, knowledge, and preventive practices on CAP among 300 respondents selected through quota sampling. The study revealed that most respondents were aged 41-50 years old, female, married, had an extended family structure, had reached the high school level, had an estimated monthly income of less than P 10,000.00, and had no family history of CAP. It was found that most respondents had very low knowledge about the diagnosis of the disease and a very low perception of rest/sleep and physical activity as significant preventive practices for CAP. A significant relationship between knowledge and preventive practices on CAP was identified. Therefore, it is necessary to intensify information, education, and communication (IEC) campaigns to improve awareness of CAP. The study suggests partnerships between public and private organizations to initiate, facilitate, and coordinate programs aimed at reducing CAP and providing training for the implementers of IEC campaigns. Additionally, a high level of healthy practices should be maintained and strengthened through various program interventions by allocating funds at city and barangay levels. Further research is recommended to determine the effects of demographic profiles on the knowledge and preventive practices of CAP.

Keywords: Knowledge; Preventive practices; Community-Acquired pneumonia; Information-education-communication (IEC) campaigns; General Santos City.

1.0 Introduction

Community Acquired Pneumonia (CAP) refers to pneumonia contracted by a person within the healthcare system specifically in the community setting or outside the hospital (Smith, McCracken, Weber, Hubbard, Jenny, & Thompson, 2018). According to the World Health Organization (2016), CAP commonly affects all ages and its symptoms occur as a result of oxygen-absorbing areas of the lung filling with fluid which later on inhibits lung function causing dyspnea or difficulty breathing, fever, chest pains, and cough. It accounts for 16% of all deaths of children under five years old, killing 920,136 children in the year 2015.

In the United States and most areas of Canada, caregivers such as mothers possess sufficient knowledge of managing cough and pneumonia at home where a mother's perception of illness severity and recognition of danger signs are care-seeking determinants for pneumonia (Bruce, Pope, Klein, & Stanistreet, 2014). In England, most household health-seeking behavior is affected by multiple factors including cultural beliefs and illness

perceptions, experimentation, and habits. While in other regions of the world like Ghana and South Africa, most of the population had never heard of the word pneumonia (Colvin, Smith, Swartz, & George, 2013).

CAP in the Philippines is a commonly encountered infection associated with significant morbidity and mortality which contributes a major expenditure to the healthcare delivery system (Damian, Aguinaldo, & Carlos, 2018). In most regions of the country, healthcare management on CAP is significant which contributes to the perception that history, physical examination, and clinical symptoms are important tools to arrive at a diagnosis of pneumonia. Filipinos would not always but sometimes request for an initial chest x-ray but always think that presence of lung disease, pleural effusion, and alveolar consolidation suggests severity of the disease and would most of the time feel the need for hospitalization (Department of Health, 2015).

In most areas of General Santos City especially in far-flung barangays, people manifested a lack of knowledge of CAP particularly on its signs and symptoms and the best ways to provide care for their child who is affected with this disease. Moreover, using herbals readily available in their areas is the most common practice performed by Barangay Upper Labay, Conel, Olympog, and other far purok or barangay residents. In addition, most caregivers believed that symptoms of pneumonia were caused by exposure to cold temperatures and wind, or thought that breathing difficulties were linked to headaches, junk food, or worm infestations (Department of Health, 2015).

Hence, this research was conducted to describe and determine the relationship of knowledge in the preventive practices of CAP among residents in General Santos City.

2.0 Methodology

2.1 Research Design

The study utilized a descriptive-correlational research design that described the demographic profile of respondents and determined the association between knowledge, and preventive practices of Community-Acquired Pneumonia (CAP). According to Creswell (2012), descriptive-correlational research design is used to seek out accurate information and adequate descriptions of activities, objects, processes, and persons, and determine any significant correlation with each other. In this study, it described the knowledge of the nature, causative agents, risk factors, diagnosis, signs and symptoms, mode of transmission, treatment, and prevention of CAP as well as the preventive practices of CAP such as hygiene, nutrition, physical activities, sleep, and rest, and determined whether there was a significant relationship between the two variables.

2.2 Research Locale

The study was conducted in General Santos City, South Cotabato, Region XII, Philippines which is a first class highly urbanized city. It is located on the island of Mindanao which is the southernmost and 15th most populous city in the country with a total of 697,315 population in the 2020 census. The study's research areas were saturated among the ten most populated barangays in the city namely: Barangay Calumpang, Barangay Fatima, Barangay Labangal, Barangay San Isidro, Barangay Lagao, Barangay Apopong, Barangay Bula, Barangay Mabuhay, Barangay City Heights, and Barangay Tambler.

2.3 Research Participants

The respondents of the study were residents of the ten selected Barangays in General Santos City. A total of 300 respondents were surveyed from these barangays. The inclusion criteria in the selection of respondents were the following: should be the head of the family either the father or mother, should not be a minor and the minimum age should be 18 years old, and possess the willingness to participate in the study in which should have signed an informed consent before participation.

2.4 Research Instrument

This study utilized a validated self-made survey questionnaire to gather data on the demographic profile of respondents, and a validated self-made pen and paper test that determined the knowledge, and preventive practices on CAP. These research instruments were validated utilizing construct and content validity tools. These were administered to several validators to determine the degree of appropriateness of all items included.

2.5 Data Gathering Procedure

Before the conduct of actual data collection, a protocol was followed to ensure compliance with research guidelines and to protect the rights of the respondents. Correspondences were sent to the City Health Office, Rural Health Units (RHU), and Office of the Barangay Captains to ask permission to conduct the study followed by courtesy visits to the concerned offices. After approval, the researcher coordinated with RHUs to arrange community assemblies to conduct the research. Then, the researcher administered the pen-and-paper test and survey questionnaires observing ethical considerations including giving informed consent. In the conduct of this study, no coercion was done to the respondents. After the collation of information, data interpretation and analysis were performed.

2.6 Ethical Considerations

This research study followed a standard ethical guideline. The participation of respondents was voluntary. They were to opt to dismiss themselves from the study at any point whenever they felt uncomfortable. Their participation was protected from harm. The dignity and well-being of respondents were also protected. The research data remained confidential throughout the study, and the rights of respondents were protected while ensuring scientific or academic integrity.

3.0 Results and Discussion

3.1 Demographic Profile of Respondents

Table 1. Descriptive statistics of the demographic profile of respondents

Variables	Frequency	Percentage
Age		
18-20 years old	40	13.3
21-30 years old	45	15.0
31-40 years old	58	19.3
41-50 years old	82	27.3
51-60 years old	43	14.3
61 years old and above	32	10.8
Sex		
Male	94	31.3
Female	206	68.7
Civil Status		
Single	7	2.30
Married	274	91.4
Widow/Widower	13	4.30
Separated/Annulled	6	2.00
Family Structure		
Nuclear	16	5.30
Extended	195	65.0
Living Independently	89	29.7
Educational Status		
Elementary Level	60	20.0
Elementary Graduate	43	14.3
High School Level	92	30.7
High School Graduate	72	24.0
College Level	20	6.70
College Graduate	13	4.30
Monthly Income		
Less than P 10,000.00	278	94.7
P 10,001.00- P 20,000.00	22	7.30
History of CAP in the Family		
With History	45	15.0
Without History	255	85.0

Table 1 presents the demographic profile of respondents. It revealed that the majority of the respondents are aged 41-50 years old, female, married, have an extended structure type of family, have reached high school level, with an estimated monthly income of less than P 10,000.00, and without a history of CAP in the family.

3.2 Knowledge and Preventive Practices on CAP

Table 2. Descriptive statistics of the knowledge and preventive practices on CAP

Variables	Mean	Interpretation
Knowledge on CAP		
Nature	2.22	Low
Causative Agent	1.93	Low
Risk Factors	1.99	Low
Diagnosis	1.72	Very Low
Signs and Symptoms	1.83	Low
Mode of Transmission	2.26	Low
Treatment	2.06	Low
Prevention	2.04	Low
Over-all Mean	2.01	Low
Preventive Practices on CAP		
Hygiene	2.27	Low
Nutrition	2.24	Low
Physical Activity	1.37	Very Low
Sleep/Rest	1.75	Very Low
Over-all Mean	1.91	Low

Table 2 presents the knowledge and preventive practices on CAP. In terms of knowledge of CAP, it revealed that the mode of transmission of CAP obtained the highest overall mean of 2.26 which was interpreted as low while the diagnosis of CAP obtained the lowest overall mean of 1.72 which was interpreted as very low. In terms of preventive practices of CAP, it revealed that hygiene obtained the highest overall mean of 2.27 which was interpreted as low while practices of physical activity and sleep/rest obtained the lowest overall mean of 1.37 which was interpreted as very low.

3.3 Correlation Between Knowledge and Preventive Practices on CAP

Table 3. Correlation analysis between knowledge and preventive practices on CAP

	Level of Knowledge		Interpretation
	Pearson Correlation	Significance (2-tailed)	
Practices	0.145	0.149	There was a significant correlation.

Table 3 presents the correlation between knowledge and preventive practices on CAP. It was revealed that there was a strong significant correlation between these two variables.

Community-acquired pneumonia is the infectious disease with the largest mortality worldwide affecting mainly children and older adults; and is still one of the most important reasons for premature death particularly in developing nations (World Health Organization, 2016). Knowledge of this disease is needed to help with disease prevention and avoid further complications. According to the Centers for Disease Control and Prevention (2016), efforts to reduce mortality are necessary to decrease mortality due to pneumonia. To achieve this, preventive strategies such as expanding vaccination coverage are key. Once a child develops pneumonia prompt treatment which is essential to survival is dependent on the mother and the caregiver's recognition of the symptoms and danger signs of pneumonia.

Several studies indicate that there is a lack of awareness among people, particularly mothers, about Community-Acquired Pneumonia as well as their health-seeking behavior towards the disease. Higher maternal educational attainment and residence in semi-urban areas were significantly associated with knowledge of etiology, danger signs, and vaccination of their children against pneumonia (Abbey, Chinbuah, Gyapong, & Bartholomew, 2016). According to Aftab, Shipton, Rabbani, & Qazi (2018), women demonstrated a poor awareness of common childhood illnesses including pneumonia, which was often associated with symptoms such as cough, flu, chest tightness, fever, and difficulty in breathing. Mothers had mixed views on causative factors and treatment options

but generally preferred modern medicine for persisting and severe symptoms. However, all respondents reported access to health facilities as a barrier to care, associated with transport, personal safety, and economic constrain.

Health-seeking practices on pneumonia showed significant results in seeking health response in rural residences, seeking healthcare in a governmental hospital, health care decisions by mothers, poorest households, using self-medication, using traditional medicine before healthcare-seeking, and no information about early healthcare-seeking for childhood pneumonia treatment were the identified determinants significantly associated with delay in seeking healthcare among mothers of under-five children with pneumonia (Muro, Meta, & Hildenwall, 2017).

Therefore, health-seeking behaviors and practices on community-acquired pneumonia should not be delayed to prevent disease mortality. According to Nair, Williams, Willocks, & Campbell, H. (2016), rural residence, healthcare seeking at government hospitals, healthcare decisions by mothers, poorest households, using self-medication, using traditional medicine before healthcare seeking, and lack of information about early healthcare-seeking were the factors associated with a delay in seeking healthcare for under-five children with pneumonia. Hence, the government and other concerned stakeholders should give due emphasis to tackling the identified causes of delay in seeking health care for the under-five children with pneumonia

4.0 Conclusion

This study concluded that there was a significant correlation between knowledge and preventive practices on CAP. Knowledge of CAP plays a crucial role in preventing acquiring CAP as well as the health-seeking behavior in treating the disease. Therefore, it is necessary to intensify information, education, and communication (IEC) campaigns focused on improving knowledge and preventive practices about CAP. Partnership between public and private organizations to create health programs on CAP was also recommended. Training for nurses and health workers on the implementation of IEC materials would also be a useful intervention to perform. It was also recommended that a high level of healthy practices must be maintained and strengthened through program intervention at city and barangay levels. Lastly, a further study was suggested to determine the effects of the demographic profile of respondents on the knowledge and preventive practices of CAP.

5.0 Contributions of Authors

The author indicates the complete contribution to each section. The author reviewed and approved the final work.

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7.0 Conflict of Interests

The authors declare no conflicts of interest about the publication of this paper.

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