Comparative Assessment of the Health-Seeking Behavior of Selected Household Heads in Cainta and Taytay, Rizal Before and During the COVID-19 Pandemic

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Abstract— Health-seeking behavior is an individual's reaction to a perceived illness and the actions taken to manage said perceived illness. An individual's health-seeking behavior may be influenced by several factors and barriers, such as laziness and lack of self-discipline, that endanger the body's well-being. Apart from inaccessible healthcare, a negative health-seeking behavior increases the possibility of developing life-threatening diseases. This study aimed to determine, compare, and contrast the health-seeking behavior of selected household heads in Cainta and Taytay, Rizal before and during the COVID-19 pandemic. The study was conducted through the use of a standardized questionnaire modified in alignment with the study. The participants were selected through convenience sampling, a non-probability sampling technique. The sampling technique used allowed the researchers to acquire 152 participants irrespective of statistical computations. The attitude of the participants toward seeking a physician's advice and self-medication to treat their frequently experienced symptoms before and during the COVID-19 pandemic, as well as the frequency and duration before treating the said symptoms, were analyzed with the use of descriptive and summary statistics, which is incorporated with tables and bar graphs for visualization. There were no significant differences between the health-seeking behavior of the participants before and during the COVID-19 pandemic. The participants tend to self-medicate instead of seeking a physician's advice to treat their frequently experienced symptoms. The participants also treated their symptoms only once within the week of the appearance of symptoms. The occurrence of the COVID-19 pandemic did not affect the health-seeking behavior of selected household heads in Cainta and Taytay, Rizal. Inclusion of other factors that may further determine the health-seeking behavior of an individual is recommended. The utilization of probability sampling technique, focusing on a single research locale, and further studies are also recommended.

Index Terms— Comparative assessment, COVID-19 pandemic, health-seeking behavior, household head

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1 Introduction

1.1 Background of the Study

HEALTH care is defined as the act of providing medical interventions to individuals or a population. According to the World Health Organization [1], at least half of the world's population does not have access to vital healthcare services. The likelihood of developing life-threatening diseases increases when healthcare is not readily accessible to the population. Handling these diseases from their initial state serves as the pivotal point toward attenuating disease severity. However, several barriers may retract an individual's decision to seek health care, such as health-seeking behavior (HSB). There is limited information on the level of HSB and associated factors among household heads. Therefore, assessing the factors associated with HSB among household heads has a significant role in filling the information gap to control inappropriate health-seeking practice and their outcomes.

Health-seeking behavior is defined as an action taken by an individual discerning themselves with an illness and subsequently seeking medical attention or not [2]. It is heavily influenced by several determinants such as age, resources, knowledge, social class, and availability of health services. A study by Lim et al. [3] showed that age, sex, and availability of health services are the most dominant determinants associated with HSB toward influencing an individual. In Philippine setting, individual factors played a big role as a barrier for HSB. Filipinos tended to show negative characteristics, such as laziness and lack of self-discipline, to seek health care. In some instances, Filipinos also showed frequency in the workspace, which compromises time for the body's well-being [4]. The tendency to undermine minor health conditions is a common behavior in the Philippines. This conduct leads to the possibility of allowing underlying diseases to flourish and cause serious illnesses.

The household head is an individual responsible for leading the family in terms of decision-making and earning money. In 2018, household heads of ages 20–64 years were approximately 80% globally, leaving household heads of ages <20 years and >65 years to approximately <20% and <5%, respectively. The majority of this percentage can be grouped to the working-age population.

An individual tends to become more responsive in terms of HSB during times of illness [5]. In this case, the household head contributes to the decision-making of the family, whether a household member should seek medical healthcare or not during the coronavirus disease (COVID-19) pandemic. The HSB of the household head will determine the outcome of the healthcare status of the family.

The circumstances brought about by the COVID-19 pandemic caused turbulence in most people's lifestyles. There are

already numerous correlations in the impact of the COVID-19 pandemic regarding the lifestyle and mental well-being of an individual [6]. However, a clear gap between the HSB of an individual before and during the pandemic has not yet been prominently established. Currently, Filipinos experience several barriers concerning their HSB [4]. The addition of more barriers can further deteriorate their health due to negligence of certain health conditions or diseases. The assessment of the HSB before and during the COVID-19 pandemic serves as a vital point toward providing feasible recommendations to uplift the declining HSB of Filipinos due to pre-existing factors.

1.2 Statement of the Problem

Different studies showed that HSB can be affected by several factors, including the prioritization of other tasks over one's health. This scenario can bring a potential negative impact on an individual's health and be characterized as a negative HSB. Hence, it is necessary to assess the HSB of the participants to know the extent of their HSB. The goal of the study is to provide an analysis and rationale to the HSB of selected household heads in Cainta and Taytay, Rizal before and during the COVID-19 pandemic. Through the use of a questionnaire, essential information from the participants were collated by the researchers. Based on the gathered data, the outcome was rationalized to provide an observation in the HSB of the participants.

Specifically, this research aims to answer the following:

1. What is the HSB of selected household heads in Cainta and Taytay, Rizal before the COVID-19 pandemic?
2. What is the HSB of selected household heads in Cainta and Taytay, Rizal during the COVID-19 pandemic?
3. What are the similarities and differences between the HSB of selected household heads in Cainta and Taytay, Rizal before and during the COVID-19 pandemic?

Due to the said pandemic, people have been more health-conscious and opted to seek medical assistance as compared to the pre–COVID-19 pandemic setting. Hence, this study is designed to assess the hypothesis that there is a significant difference between the HSB of selected household heads in Cainta and Taytay, Rizal before and during the COVID-19 pandemic.

1.3 Objectives of the Study

The study aims to assess the HSB of selected household heads in Cainta and Taytay, Rizal before and during the COVID-19 pandemic.

Specifically, this research aims to:

a. Determine the HSB of selected household heads in Cainta and Taytay, Rizal before the COVID-19 pandemic.
b. Determine the HSB of selected household heads in Cainta and Taytay, Rizal during the COVID-19 pandemic.
c. Compare and contrast the HSB of selected household heads in Cainta and Taytay, Rizal before and during the COVID-19 pandemic.

1.4 Significance of the Study

Health-seeking behavior varies from person to person, depending on the preferences of an individual. However, it may be affected by other factors, such as the availability of health institutions, quality of the healthcare system, and even one's beliefs and social status. The results of this study are expected to provide evidence-based information to the community, local government, and healthcare providers and policymakers. Based on the available information, possible interventions will be made.

1.4.1 Field of Research

This study will help in understanding the primary causes and other factors that contribute to the HSB of an individual. Furthermore, it will contribute to the past studies done by other researchers.

1.4.2 Healthcare

This study will help healthcare providers in preparing for possible surges in the number of patients needed to be attended, especially in times of crisis. However, it can still be pertained under normal conditions.

1.4.3 Community

This study will help the communities of Cainta and Taytay, Rizal by the previous benefits above. Being the research locale of the study, the communities of Cainta and Taytay, Rizal will benefit the most as the results of this study will be directed toward either the improvement or maintenance of their healthcare system.

1.5 Scope and Limitations

This study was conducted primarily to determine and compare the HSB of selected household heads in Cainta and Taytay, Rizal before and during the COVID-19 pandemic. The determination of the HSB of selected household heads was done through the administration of a questionnaire on an online platform. This allowed the researchers to analyze the HSB of the participants after the collection of a sufficient number of responses. Subsequently, a comparison was done to assess possible changes in the HSB of the participants. Furthermore, the researchers chose Cainta and Taytay, Rizal as these are among the most populous municipalities in Rizal. As a result, sufficient data were collected to achieve the objectives of the study.

This study disregarded the gender, presence of comorbidities, educational attainment, occupation, and socio-economic status of the participants. The data collection was conducted to selected household heads of at least 18 years old situated in Cainta and Taytay, Rizal. Other residents of Rizal who are not part of the criteria are not within the scope of the study.

This research was administered through the utilization of questionnaire, which was given to the participants as an online survey and reference. The information gathered by the researchers were strictly confidential and were only used to achieve the objectives of the study.

1.6 Conceptual Framework

The researchers utilized the theory of planned behavior (TPB)

as the conceptual framework of the study. This theory states that a specific behavior corresponds to a specific consequence [7]. Applying to the study, variables from the study were aligned to the structure of the theory, namely attitude, subjective norm, and perceived behavioral control. Firstly, attitude, which is based on the individual's personal opinion, was represented by the actual perception of the selected household heads about the onset of symptoms. Secondly, subjective norm, which is based on the pressure of society arising from other's expectation, was represented by the pressure of surrounding peers on what course of treatment to follow. Lastly, perceived behavioral control, which is based on the individual's perception of their ability to perform a specific behavior, was represented by the perception of the selected household heads to perform an action based on the mentioned structures earlier [8]. With this, the TPB was utilized to infer the expected course of the HSB of selected household heads.

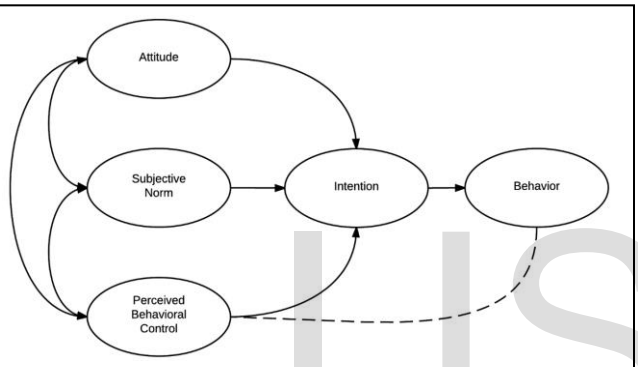

Fig. 1. Theory of planned behavior model. Attitude, subjective norm, and perceived behavioral control are interconnected and affect one another. These three factors also affect the intention of an individual, which leads to the behavior exhibited by the said individual.

2 METHODOLOGY

2.1 Research Design

This study was conducted using a descriptive method of research through the utilization of an online questionnaire. The said questionnaire was made from Google Forms and was disseminated through Messenger and Facebook. Descriptive research is widely used in the study of behavioral sciences to determine the status of a certain issue. It corresponds to the researchers' study regarding the determination, comparison, and contrast of the HSB of selected household heads in Cainta and Taytay, Rizal before and during the COVID-19 pandemic. Sufficient data were gathered from the study participants to achieve the objectives of the study. Based on the data, a descriptive method was employed to demonstrate the conclusion of the study.

2.2 Research Locale

This study was conducted in Cainta and Taytay, Rizal. The province of Rizal has a total population of 2,884,227 as of 2015. Cainta and Taytay, Rizal were chosen by the researchers as the locale of the study because these municipalities are among the populous municipalities in Rizal. The municipalities of Cainta and Taytay comprise 12.6% and 11.6% of Rizal's population, respectively [9].

2.3 Research Respondents

This study utilized selected household heads in Cainta and Taytay, Rizal as participants. In addition, the study used convenience sampling, a non-probability sampling technique. In this technique, no computations were done to achieve the sample size. Instead, the researchers considered every household head that will participate in the study as the sample size for the study, provided that they are within the mentioned criteria earlier. Despite the absence of exact sample size, the researchers attempted and achieved a sample size of more than 150 participants, with 152 participants to be exact.

The household head has sole jurisdiction and responsibility for household affairs as they oversee the decision-making in terms of expenses and necessity [10]. Furthermore, gender, presence of comorbidities, educational attainment, occupation, and socio-economic status of the participants were disregarded in this study.

2.3.1 Inclusion Criteria

By utilizing the study of Posel [10], the participants of this study must meet the following criteria to be considered as household heads:

1. Main income earners in the family
2. Have access to more economic resources

The said criteria are established since income earners usually have the jurisdiction on how and where they would spend the money they earn. As a result, the main income earners have more experience in the economic sector in terms of economic activities, including, but not limited to, purchasing goods and services, as well as paying taxes. In addition, age and gender are also considered for deciding the household heads [10]. However, only the age will be taken into consideration by the researchers in choosing the participants of the study. It will only include participants of at least 18 years old.

To ensure the authenticity of the participants, the participants themselves shall read the introductory part of the questionnaire. In this part, the mentioned criteria were clearly stated for the study participants. After reading, they must agree to proceed to the next parts of the questionnaire. If they do not meet the criteria, they shall forfeit their participation in the study by clicking disagree. As a result, the online survey will be immediately canceled.

2.3.2 Exclusion Criteria

As the majority of the percentage of household heads are included in the economically active or working-age population, only household heads of at least 18 years old will be included in the study. Moreover, minors are not considered to be legally capable of making decisions in terms of healthcare. Therefore, household heads aged 17 years old and below will be excluded from this study. In the case of accessing the questionnaire by a participant who is not fit for the study criteria, the participant must disagree with the introductory part to immediately cancel their participation.

2.4 Data Gathering Techniques

The data were collected through an online survey which can be answered within 10–15 minutes. A descriptive method of research was done to make a comparative assessment of the HSB of selected household heads in Cainta and Taytay, Rizal before and during the COVID-19 pandemic. This study used a standardized questionnaire based on a similar study assessing the healthcare-seeking behavior during the 2009 H1N1v influenza epidemic in England, which was modified to align with the researchers' study. The modified questionnaire was made in Google Forms and an additional incentive of a 30-peso cellular load was given to the participants. Furthermore, the modified questionnaire was available in two languages, namely English and Filipino. The participants had the right to choose what language they preferred in answering the questionnaire. By choosing one of the languages, the participants were automatically redirected to the corresponding language of the modified questionnaire.

2.5 Research Instrument

The researchers utilized a standardized questionnaire, which was primarily used in a study to assess the healthcare-seeking behavior during the 2009 H1N1v influenza epidemic in England. The standardized questionnaire was made by the researchers of the said study, namely Ellen Brooks-Pollock, Natasha Tilston, W. John Edmunds, and Ken T. D. Eames. The said questionnaire involved two major portions—demographics and symptoms [11]. The researchers focused on the symptoms portion, which contained questions similar to the objectives of the researchers' study. However, the questionnaire used was made to assess the healthcare-seeking behavior during the 2009 H1N1v influenza epidemic. Hence, several modifications were made by the researchers to change the concept of the questionnaire from the H1N1v influenza epidemic to the COVID-19 pandemic. Key revision included the addition of questions leading to the HSB of the participant after the onset of COVID-19 symptoms [12]. The modified questionnaire was duplicated to gather data from the same set of participants in pre–COVID-19 pandemic and COVID-19 pandemic settings. The standardized questionnaire used in the study is freely accessible for non-commercial purposes. Therefore, the researchers did not have to request permission for the use of the said questionnaire. However, the researchers cited the original author of the questionnaire.

2.5.1 Instrument Validation

The researchers performed a pre-test, followed by the utilization of Cronbach's alpha, to validate the reliability of the questionnaire. The Cronbach's alpha assesses the consistency of a test, thus leading to appropriate validation of questionnaire reliability. The Cronbach's alpha resulted to 0.7625, which is acceptable. Therefore, the modified questionnaire made by the researchers was reliable and can be used for the actual survey.

2.6 Sampling Method

The participants of the study were derived through convenience sampling, a non-probability sampling technique. This technique does not rely on random selection of respondents, as opposed to the probability sampling technique. Non-probability sampling techniques can be used for studies that have a qualitative, mixed methods, or even quantitative design. Applying these to a qualitative research design, the primary goal is not to be objective or be able to make statistical inferences about the population using the sample, but to draw conclusions about the sample being studied. One of the non-probability sampling techniques is convenience sampling, which will be utilized for this study. Convenience sampling selects individuals with the easiest access. With this, the recruitment of participants was done first by personally contacting close friends and relatives in Messenger. These acquaintances helped in participating in the study and also in reaching out to various household heads that fit the study criteria. In addition, a Facebook post was made to recruit more participants. The post included a promotional image, the summary of the study, the criteria for the participants of the study, and the link directing to Google Forms, wherein the questionnaire can be answered by the participants. The questionnaire was disseminated after securing an ethical clearance from the Faculty of Pharmacy – Research Ethics Committee (FOPREC).

2.6.1 Sample Size

Since non-probability sampling will be used, no computations were done to establish the sample size. Instead, the researchers considered every household head that will participate in the study as the sample size for the study, provided that they are within the mentioned criteria earlier. Furthermore, the researchers attempted and achieved a sample size of more than 150 participants, with 152 participants to be exact.

2.7 Analysis of Data

The analysis of data for this study was conducted through the use of descriptive and summary statistics, which are composed of frequency. With this, the researchers can assess which response is the most frequently selected by the study participants. To aid in visualizing the data, a visual representation was used. This includes tables and bar graphs, which are normally utilized for visual representation of qualitative data [13]. Furthermore, it will be used to visualize the frequency distribution of the data.

2.8 Ethical Considerations

The participants of the study were asked to read and agree to an informed consent form before answering the questionnaire. By accepting the provisions included in the informed consent form, the participants were aware of the study's purpose and the consequences of participating in it. These include, but not limited to, the participants' privacy by securing the gathered data to the researchers only and using it only to achieve the objectives of the study, and confidentiality by giving them an option to keep their identities anonymous. Once agreed, the questionnaire was answered by the participants. If the participants wished to forfeit their participation, they may disagree to the consent form, resulting in the immediate cancellation of the online survey.

The researchers submitted the thesis proposal to FOPREC and secured an ethical clearance, which verifies that the study

will not harm or violate the participants' rights and privacy.

3 Results and Discussion

3.1 Results

TABLE 1
FREQUENTLY EXPERIENCED SYMPTOMS
BEFORE AND DURING THE COVID-19 PANDEMIC

Frequently Experienced Symptoms	Household Heads	
	Pre–COVID-19 pandemic	*COVID-19 pandemic*
Cough	67	60
Runny nose or congestion	89	86
Fever	10	10
Shortness of breath	18	12
Sore throat	28	30
Loss of taste or smell	1	1
Chest pain	9	9
Others	31	34

Before the COVID-19 pandemic, 89 out of 152 participants experienced runny noses or congestion. On the other hand, 1 of the participants experienced the loss of taste or smell. During the COVID-19 pandemic, the majority of the participants experienced runny noses or congestion. Other frequently experienced symptoms also include cough and sore throat.

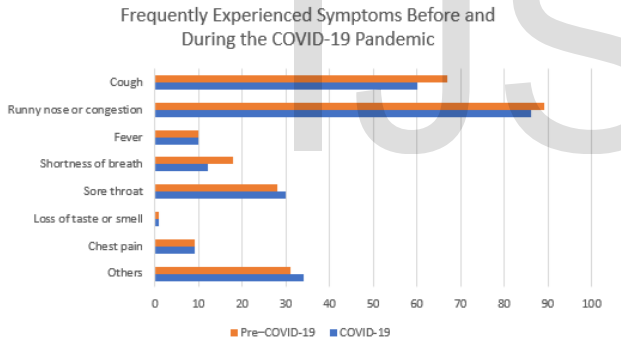

Fig. 2. Comparison between the frequently experienced symptoms before and during the COVID-19 pandemic. Runny nose or congestion was the most prevalent symptom before and during the COVID-19 pandemic.

TABLE 2
SEEKING OF PHYSICIAN'S ADVICE BEFORE AND
DURING THE COVID-19 PANDEMIC

Response in Seeking a Physician's Advice	*Pre–COVID-19 pandemic*		*COVID-19 pandemic*	
	Household Heads	Frequency	Household Heads	Frequency
Yes	33	22%	25	16%
No	119	78%	127	84%

Before the COVID-19 pandemic, 78% of the 152 participants did not seek the advice of a physician to treat the presented symptoms in Table 1. On the other hand, 22% of the participants sought a physician's advice. During the COVID-19 pandemic, most of the participants did not seek the advice of a physician. In contrast, only 25 of the participants sought a physician's advice.

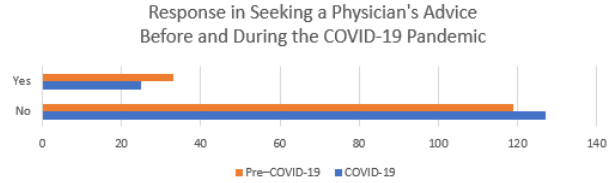

Fig. 3. Comparison between the responses in seeking a physician's advice before and during the COVID-19 pandemic. Majority of the participants did not seek a physician's advice before and during the COVID-19 pandemic.

TABLE 3
DURATION BEFORE THE PARTICIPANTS SOUGHT A
PHYSICIAN'S ADVICE AFTER THE APPEARANCE OF SYMPTOMS
BEFORE AND DURING THE COVID-19 PANDEMIC

Duration Before Seeking a Physician's Advice	*Pre–COVID-19 pandemic*		*COVID-19 pandemic*	
	Household Heads	Frequency	Household Heads	Frequency
Less than a week	19	58%	18	72%
1–2 weeks	10	30%	6	24%
3–4 weeks	0	0%	1	4%
More than 4 weeks	3	9%	0	0%
Blank (no answer)	1	3%	0	0%

Among the 33 participants who sought the advice of a physician before the COVID-19 pandemic, the majority of them sought a physician's advice less than a week after the appearance of symptoms. In comparison, the majority of the 25 participants who sought the advice of a physician during the COVID-19 pandemic also acted within the week of the appearance of symptoms.

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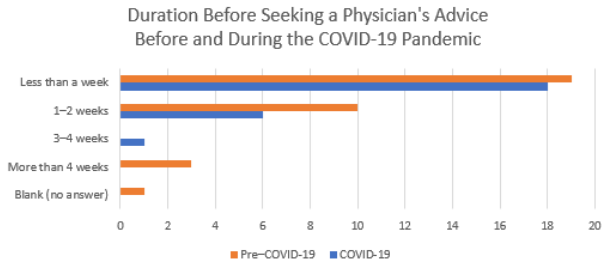

Fig. 4. Comparison between the duration before the participants sought a physician's advice after the appearance of symptoms before and during the COVID-19 pandemic. Majority of the participants sought a physician's advice less than a week after the appearance of symptoms before and during the COVID-19 pandemic.

TABLE 4
FREQUENCY OF SEEKING A PHYSICIAN'S ADVICE BEFORE AND DURING THE COVID-19 PANDEMIC

Frequency of Seeking a Physician's Advice	*Pre–COVID-19 pandemic*		*COVID-19 pandemic*	
	Household Heads	Frequency	Household Heads	Frequency
Once	22	67%	18	72%
Twice	5	15%	3	12%
Thrice	2	6%	2	8%
More than three times	3	9%	2	8%
Blank (no answer)	1	3%	0	0%

Among the 33 participants who sought the advice of a physician before the COVID-19 pandemic, the majority of them sought a physician's advice only once from August 2019 to February 2020. In comparison, the majority of the 25 participants who sought the advice of a physician during the COVID-19 pandemic also sought some advice only once from March to November 2020.

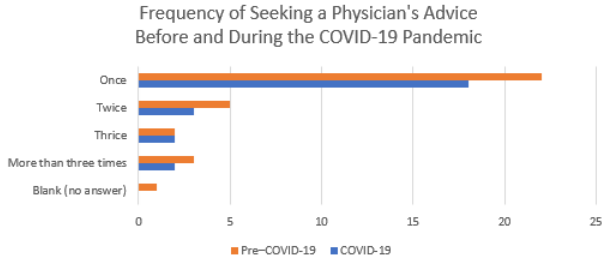

Fig. 5. Comparison between the frequency of seeking a physician's advice before and during the COVID-19 pandemic. Majority of the participants sought a physician's advice only once before and during the COVID-19 pandemic.

TABLE 5
ALTERATION OF DAILY ROUTINE BY TAKING REGIMENS BASED ON THE PHYSICIAN'S ADVICE BEFORE AND DURING THE COVID-19 PANDEMIC

Response in Altering Daily Routine by Taking Regimens Based on the Physician's Advice	*Pre–COVID-19 pandemic*		*COVID-19 pandemic*	
	Household Heads	Frequency	Household Heads	Frequency
Yes	27	82%	21	84%
No	5	15%	4	16%
Blank (no answer)	1	3%	0	0%

Among the 33 participants who sought the advice of a physician before the COVID-19 pandemic, the majority of them altered their daily routine by taking regimens based on the physician's advice. In comparison, 21 out of 25 participants who sought the advice of a physician during the COVID-19 pandemic also altered their daily routine by taking regimens based on the physician's advice, while 4 of them did not alter their daily routine. In other words, 84% of the participants who sought the advice of a physician during the COVID-19 pandemic altered their daily routine by taking regimens based on the physician's advice.

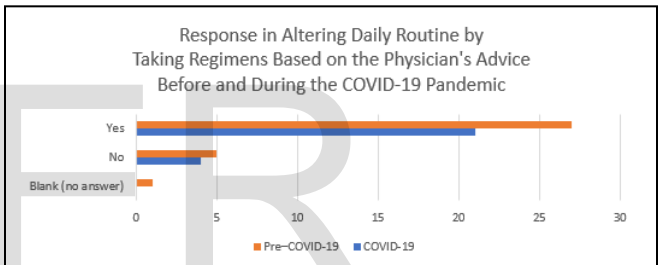

Fig. 6. Comparison between the responses in altering daily routine by taking regimens based on the physician's advice before and during the COVID-19 pandemic. Majority of the participants altered their daily routine by taking regimens based on the physician's advice before and during the COVID-19 pandemic.

TABLE 6
PRACTICING OF SELF-MEDICATION BEFORE AND DURING THE COVID-19 PANDEMIC

Response in Practicing Self-Medication	*Pre–COVID-19 pandemic*		*COVID-19 pandemic*	
	Household Heads	Frequency	Household Heads	Frequency
Yes	106	70%	109	72%
No	46	30%	43	28%

Before the COVID-19 pandemic, 106 out of 152 participants practiced self-medication to treat the presented symptoms in Table 1. On the other hand, 46 of the participants did not practice self-medication. In other words, 70% of the participants practiced self-medication before the COVID-19 pandemic. During the COVID-19 pandemic, 109 of the participants practiced self-medication. On the other hand, 43 of the participants did not practice self-medication. In other words, 72% of the participants practiced self-medication during the COVID-19 pandemic.

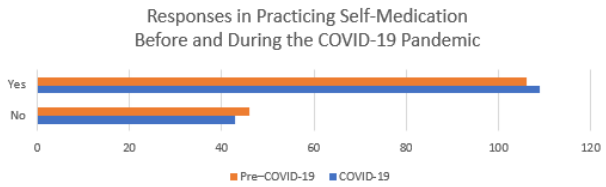

Fig. 7. Comparison between the responses in practicing self-medication before and during the COVID-19 pandemic. Majority of the participants practiced self-medication before and during the COVID-19 pandemic.

TABLE 7
DURATION BEFORE THE PARTICIPANTS STARTED SELF-MEDICATING AFTER THE APPEARANCE OF SYMPTOMS BEFORE AND DURING THE COVID-19 PANDEMIC

Duration Before Starting Self-Medication	*Pre–COVID-19 pandemic*		*COVID-19 pandemic*	
	Household Heads	Frequency	Household Heads	Frequency
Less than a week	93	88%	99	91%
1–2 weeks	10	9%	8	7%
3–4 weeks	0	0%	1	1%
More than 4 weeks	0	0%	1	1%
Blank (no answer)	3	3%	0	0%

Among the 106 participants who practiced self-medication before the COVID-19 pandemic, 88% of them started self-medicating less than a week after the appearance of symptoms, while 9% started self-medicating 1–2 weeks after the appearance of symptoms. In comparison, 91% of the 109 participants who practiced self-medication during the COVID-19 pandemic also started self-medicating less than a week after the appearance of symptoms, while 7% also started self-medicating 1–2 weeks after the appearance of symptoms. Furthermore, 1% of the participants started self-medicating 3–4 weeks after the appearance of symptoms and another 1% started self-medicating more than 4 weeks after the appearance of symptoms.

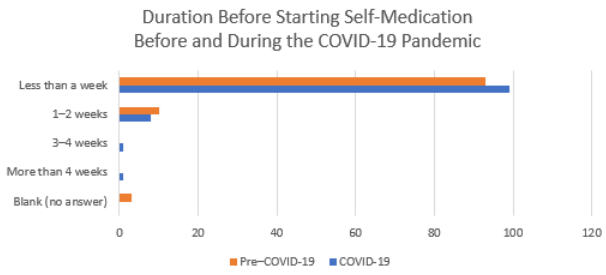

Fig. 8. Comparison between the duration before the participants started self-medicating after the appearance of symptoms before and during the COVID-19 pandemic. Majority of the participants started self-medicating less than a week after the appearance of symptoms before and during the COVID-19 pandemic.

TABLE 8
FREQUENCY OF SELF-MEDICATION BEFORE AND DURING THE COVID-19 PANDEMIC

Frequency of Self-Medication	*Pre–COVID-19 pandemic*		*COVID-19 pandemic*	
	Household Heads	Frequency	Household Heads	Frequency
Once	36	34%	40	37%
Twice	26	25%	19	17%
Thrice	6	6%	13	12%
More than three times	35	33%	33	30%
Blank (no answer)	3	3%	4	4%

Among the 106 participants who practiced self-medication before the COVID-19 pandemic, 34% of them self-medicated only once from August 2019 to February 2020, while 33% self-medicated more than three times. In comparison, 37% of the 109 participants who practiced self-medication during the COVID-19 pandemic also self-medicated only once from March to November 2020, while 30% also self-medicated more than three times.

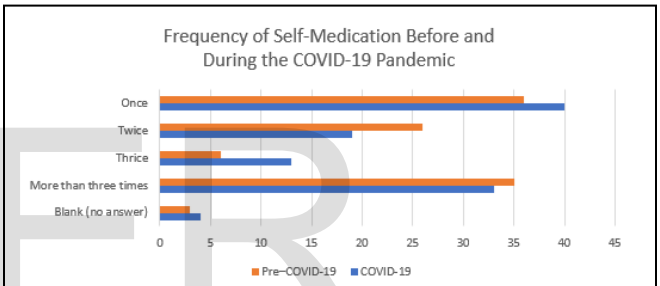

Fig. 9. Comparison between the frequency of self-medication before and during the COVID-19 pandemic. "Once" has the greatest number of responses for the frequency of self-medication before and during the COVID-19 pandemic, followed by "more than three times."

TABLE 9
BASIS ON PRACTICING SELF-MEDICATION BEFORE AND DURING THE COVID-19 PANDEMIC

Basis on Practicing Self-Medication	*Pre–COVID-19 pandemic*		*COVID-19 pandemic*	
	Household Heads	Frequency	Household Heads	Frequency
Based on past experiences with similar symptoms	77	73%	75	69%
Based on common knowledge	22	21%	29	27%
Others	2	2%	5	5%
Blank (no answer)	5	5%	0	0%

Among the 106 participants who practiced self-medication before the COVID-19 pandemic, the majority of them used their past experiences with similar symptoms as a basis on practicing self-medication. In comparison, the majority of the 109 participants who practiced self-medication during the COVID-19 pandemic also used their past experiences with similar symptoms as a basis on practicing self-medication.

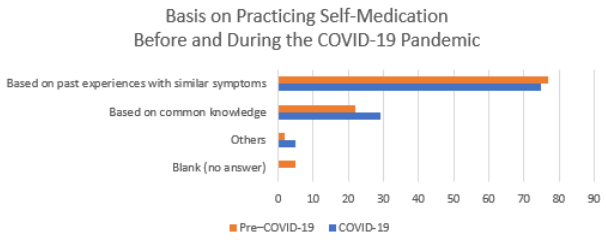

Fig. 10. Comparison between the basis on practicing self-medication before and during the COVID-19 pandemic. Majority of the participants used their past experiences with similar symptoms as a basis on practicing self-medication before and during the COVID-19 pandemic.

TABLE 10
OTHER COURSE OF ACTION ASIDE FROM SEEKING A PHYSICIAN'S ADVICE AND SELF-MEDICATION BEFORE AND DURING THE COVID-19 PANDEMIC

Other Course of Action Aside from Seeking a Physician's Advice and Self-Medication	*Pre–COVID-19 pandemic*		*COVID-19 pandemic*	
	Household Heads	Frequency	Household Heads	Frequency
Based on the advice of relatives and/or friends	61	40%	61	40%
Based on the advice in social media	3	2%	7	5%
Did nothing to treat the symptoms	22	15%	17	11%
Others	14	9%	13	9%
Blank (no answer)	52	34%	54	36%

Aside from seeking the advice of a physician and practicing self-medication, 40% of the 152 participants treated the presented symptoms in Table 1 based on the advice of their relatives and/or friends before the COVID-19 pandemic. Furthermore, 34% of the participants did not answer the given question, indicating that the participants either sought a physician's advice or self-medicated. In comparison, 40% of the participants also treated the said symptoms based on the advice of their relatives and/or friends during the COVID-19 pandemic. Furthermore, 36% of the participants did not also answer the given question.

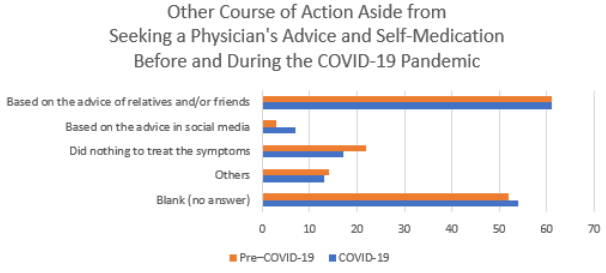

Fig. 11. Comparison between other courses of action aside from seeking a physician's advice and self-medication before and during the COVID-19 pandemic. "Based on the advice of relatives and/or friends" has the greatest number of responses for other course of action before and during the COVID-19 pandemic, followed by a "blank answer."

3.2 Discussion

Table 1 shows the frequently experienced symptoms of the participants before and during the COVID-19 pandemic. Runny nose or congestion was the most frequently experienced symptom among the participants, followed by cough. In comparison, a study by Fujimura [14] stated that cough is a frequently encountered symptom. It was supported with the evidence that the prevalence of cough among the sample size of 10,505 is 10.2%. This study was answered by registered volunteers under the research company of Nielsen in Tokyo, Japan.

Table 2 shows the responses of the participants in seeking a physician's advice before and during the COVID-19 pandemic. Among the 152 participants, the majority of them did not seek a physician's advice to treat the presented symptoms in Table 1. In comparison, the study of Fujimura [14] showed similar results. Among the 1,000 participants with cough, 60.6% of them did not visit a medical facility for treatment, while 39.4% of the same population visited a medical facility for treatment. Another study by Yang et al. [15] showed that participants from Wuhan, China who had ARI refused to seek medical attention during the COVID-19 pandemic. An individual's HSB can be affected by various factors such as financial capacity and disease discernment, but it was concluded in the study that the negative HSB of the participants was due to the anxiety of acquiring infections from visiting health care facilities.

Table 3 shows the duration before the participants sought a physician's advice after the appearance of the presented symptoms in Table 1 before and during the COVID-19 pandemic. Among the participants who sought the advice of a physician, the majority of them sought a physician's advice less than a week after the appearance of symptoms. In comparison, a study by Solberg et al. [16] assessed adult patients and parents of child patients, whether they seek medical care very early in their illnesses or later, and if they require a different approach to care. Results revealed that the patients sought medical attention as soon as possible to prevent worsening of symptoms and other complications due to delay in the treatment.

Table 4 shows the frequency of seeking a physician's advice by the participants before and during the COVID-19 pandemic. Among the participants who sought the advice of a physician, the majority of them sought a physician's advice only once. In comparison, a study by Wang et al. [17] showed that the highest frequency of primary care visitation by diabetic patients in Shandong and Jiangsu Provinces in China is 1–3 times, with a percentage of 33.7 among the 1,508 participants. It is followed by frequency of primary care visitations of 4–6 times, 7–12 times, and more than 12 times, with a percentage of 31.1, 11.9, and 11.7, respectively.

Table 5 shows the responses of the participants in altering their daily routine by taking regimens based on the physician's advice before and during the COVID-19 pandemic. In this table, 33 participants sought the advice of a physician before the COVID-19 pandemic. On the other hand, 25 participants also sought a physician's advice during the COVID-19 pandemic. Regardless of the difference, the majority of the participants from both pre–COVID-19 and COVID-19 pan-

demic settings altered their daily routine by taking regimens based on the physician's advice.

Table 6 shows the responses of the participants in practicing self-medication before and during the COVID-19 pandemic. Among the 152 participants, the majority of them practiced self-medication to treat the presented symptoms in Table 1. In comparison, a study by Nasir et al. [18] showed similar results. According to the study, 88.3% of the participants practiced self-medication during the COVID-19 pandemic, while 28.59% took medication with the advice of a physician. This may be due to the impact of the pandemic on health care access and delivery, including the community quarantine measures and transport restrictions which have limited travel of individuals outside their homes. The prevalence of self-medication may also be linked to the delay in finding an appropriate treatment for COVID-19 based on an adequately powered randomized trial [19], the effect of social media in promoting any type of COVID-19 prevention or treatment [20], the influence of political and religious leaders who claim the efficacy of certain products or have discovered traditional remedies [21], and the stigmatization of SARS-CoV-2 infected individuals, which leads people to seek treatment and care at home.

Table 7 shows the duration before the participants started self-medicating after the appearance of the presented symptoms in Table 1 before and during the COVID-19 pandemic. In this table, 106 participants practiced self-medication before the COVID-19 pandemic. On the other hand, 109 participants practiced self-medication during the COVID-19 pandemic. Regardless of the difference, the majority of the participants from both pre–COVID-19 and COVID-19 pandemic settings started to self-medicate less than a week after the appearance of the said symptoms.

Table 8 shows the frequency of self-medication by the participants before and during the COVID-19 pandemic. "Once" has the greatest number of responses for the frequency of self-medication, followed by "more than three times." In correlation, the study of Fujimura [14] showed that despite having a cough, which can lead to various underlying diseases such as chronic obstructive pulmonary disease, participants would often resort to self-medication. However, this kind of HSB can be dangerous without prior consultation with a physician. According to the United States Food and Drug Administration [22], the utilization of OTC cough and cold products for infants and children under 2 years of age can lead to severe complications, such as convulsions and death. The advisory shows that self-medication can also have its disadvantages.

Table 9 shows the basis for practicing self-medication by the participants before and during the COVID-19 pandemic. Among the participants who practiced self-medication, the majority of them used their past experiences with similar symptoms as a basis on practicing self-medication. In comparison, a study by Araia et al. [23] showed the same results, with past experiences as the most frequent basis for self-medication. Self-medication was also found to be a prevalent practice among the participants, with a percentage of 79.2 of the 313 participants. Another study by Kassie et al. [24] showed that almost more than one-third of the participants practiced self-medication. A common finding for both studies would be the integration of education for self-medication, having a primary reason of instilling a good foundation about the potential side effects of self-medication. In correlation, a study by Bennadi [25] stated that it would be safe if people who self-medicate were aware of the dosage, time of administration, and side effects if overdosed. Lack of awareness from self-medication can lead to serious consequences, such as antibiotic resistance, skin problems, hypersensitivity, and allergy.

Table 10 shows the other courses of action made by the participants aside from seeking a physician's advice and self-medication before and during the COVID-19 pandemic. "Based on the advice of relatives and/or friends" has the greatest number of responses for the other course of action aside from seeking a physician's advice and self-medication, while "based on the advice in social media" has the least number of responses. In correlation, a study by Thomas et al. [26] stated that relatives often make an efficient support system. It was observed that quality relationships can lead to a better well-being through social support. Another study by Samy et al. [27] stated that the community must be educated regarding the information seen in social media. The significantly low number of participants that opted the advice in social media as a basis in treating the presented symptoms in Table 1 can be due to the unreliability of information present in social media. Another possible reason is the inability to distinguish credible and non-credible information.

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4 Conclusion and Recommendations

4.1 Conclusion

Health-seeking behavior is important in the maintenance of health status and its difference in times of illnesses provides information about the crucial decision-making of an individual. Several variables were used to assess the HSB of the participants, such as their attitude toward seeking a physician's advice and self-medication to treat their frequently experienced symptoms before and during the COVID-19 pandemic, as well as the frequency and duration before treating the said symptoms. The findings of the study indicate that there were no significant differences between the HSB of selected household heads in Cainta and Taytay, Rizal before and during the COVID-19 pandemic, with little to no difference in every aspect of the variables used in the study. The participants tend to self-medicate instead of seeking a physician's advice to treat their frequently experienced symptoms. Whether the participants sought a physician's advice or practiced self-medication, they treated their symptoms only once within the week of the appearance of symptoms.

The similarity of the HSB of selected household heads in Cainta and Taytay, Rizal before and during the COVID-19 pandemic indicates that the selected household heads took the same approach of seeking medical attention, whether there is a presence of a pandemic or not. Regardless of the HSB of selected household heads, the healthcare system of Cainta and Taytay, Rizal can further improve to provide better health care to its community.

4.2 Recommendations

Several factors that may affect the HSB of the participants were disregarded in the study, such as the gender, presence of comorbidities, educational attainment, occupation, and socio-economic status of the participants. It is recommended to be considered for future studies to further understand the HSB of an individual. Furthermore, the researchers utilized convenience sampling, a non-probability sampling technique. For future studies, it is recommended to use a probability sampling technique to acquire a representative sample size of the target population. The researchers also utilized two municipalities in Rizal as the research locale of the study, namely Cainta and Taytay. It is recommended to focus on a single, specific research locale to acquire more specific data regarding the HSB of the individuals living on a particular community.

To provide more reliable information, further studies regarding the research topic should be conducted. Some results of the study were not provided with information from past studies done by other researchers, such as the alteration of daily routine by taking regimens based on the physician's advice and the duration before the participants started to self-medicate after the appearance of symptoms. Expanding the research is crucial to the development of society as it creates knowledge, disseminates relevant information, and aids in the decision-making of an individual.

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