

**KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY**

**COLLEGE OF HEALTH SCIENCES**

**FACULTY OF ALLIED HEALTH SCIENCE**

**DEPARTMENT OF NURSING**

**DIPLOMA PROGRAMMES**



**KNOWLEDGE, PERCEPTION AND PRACTICE OF THE USE OF NOSE MASK  
AMONG STUDENTS OF HOLY FAMILY NURSING AND MIDWIFERY TRAINING  
COLLEGE, BEREKUM**

**SUBMITTED BY:**

**ABAAH GIFTY - 5502221**

**OWUSU SERWAA HILDA - 5921621**

**[HOLY FAMILY NURSING AND MIDWIFERY TRAINING COLLEGE, BEREKUM]**

**AFFILIATED TO KNUST, KUMASI**

**HOLY FAMILY NURSING AND MIDWIFERY TRAINING COLLEGE, BEREKUM**



**KNOWLEDGE, PERCEPTION AND PRACTICE OF THE USE OF NOSE MASK  
AMONG STUDENTS OF HOLY FAMILY NURSING AND MIDWIFERY TRAINING  
COLLEGE, BEREKUM**

**ABAAH GIFTY - 5502221**

**OWUSU SERWAA HILDA - 5921621**

**DECLARATION**

We hereby declare that this submission is our own work towards the Diploma in General Nursing and that, to the best of our knowledge, it contains no material previously published by another person nor material which has been accepted for the award of diploma of the University, except where due acknowledgement has been made in the text.

Abaah Gifty



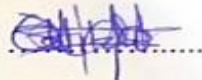
01/02/2023

5502221

Signature

Date

Owusu Serwaa Hilda



01/02/2023

5921621

Signature

Date

Certified by:

Amos Owusu

.....

.....

(Supervisor)

Signature

Date

Monica Nkrumah

.....

.....

(Principal)

Signature

Date

## **ABSTRACT**

The study focused on the knowledge, perception and practice of the use of nose mask among students of Holy Family Nursing and Midwifery Training College, Berekum. A descriptive study design was used to collect in-depth information for the study. The sample population was obtained using a proportionate stratified sampling technique. A total of 100 students were sampled for the study. The data for the study was collected by administering the questionnaire to the participants.

The study found that the majority of the respondents (54%) agreed that nose mask prevents the direct transfer of infectious pathogens. Majority of the respondents (85%) strongly agreed that incorrect usage of nose mask poses a health risk. Majority of the respondents (86%) agreed that face mask is effective in preventing spreading of droplets. Majority of the respondents (95%) strongly disagreed that one should remove his or her face mask when talking. The study recommended that all people who hold administrative positions in hospitals or schools should take the necessary measures to properly observe and implement the guidelines for wearing nose mask.

The study concluded that the wearing of nose mask was high and the majority of the respondents perceived that face mask is effective in preventing spreading of droplets.

## TABLE OF CONTENT

DECLARATION .....	<b>Error! Bookmark not defined.</b>
ABSTRACT .....	i
TABLE OF CONTENT .....	ii
LIST OF TABLE .....	v
LIST OF FIGURES .....	vi
ABBREVIATION.....	vii
ACKNOWLEDGEMENT .....	viii
CHAPTER ONE .....	1
INTRODUCTION .....	1
1.1 Problem statement .....	2
1.2 General objective of the study .....	3
1.3 Specific Objectives.....	3
1.4 Operational Definition.....	4
CHAPTER TWO .....	5
LITERATURE REVIEW .....	5
2.0 Introduction .....	5
2.1 Overview .....	5
2.2 Knowledge on the use of Nose mask .....	5

2.3 Perception on the use of Nose mask.....	8
2.4 Frequency of Practice of the use of Nose mask .....	9
CHAPTER THREE .....	11
MATERIALS AND METHODS.....	11
3.0 Introduction.....	11
3.1 Study area.....	11
3.2 The study population.....	11
3.3 Study design .....	12
3.4 Sampling technique and Size .....	12
3.5 Data collection methods and instruments.....	12
3.6 Data analysis techniques .....	13
3.7 Ethical consideration.....	13
3.8 Limitation of the study .....	13
CHAPTER FOUR.....	14
DATA ANALYSIS AND RESULTS.....	14
4.0 Data Presentation & Analysis .....	14
4.1 Demographic Profile of Respondents .....	14
4.2 Knowledge of Nursing Students on wearing nose mask.....	15
4.3 Perception about the Effective use of nose mask.....	17
CHAPTER FIVE .....	23

DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS.....	23
5.0 Introduction.....	23
5.1 Discussions.....	23
5.1.1 Knowledge of Nursing Students on the use of nose mask .....	23
5.1.2 Perception about the Effectiveness of nose mask usage.....	24
5.1.3 Frequency of Practice of the use of Nose mask.....	25
5.2 Conclusion.....	25
5.3 Recommendations .....	25
REFERENCES .....	27
APPENDICES .....	29

## LIST OF TABLE

Table 1: Age Distribution of Respondents.....	14
Table 2: Sex Distribution of Respondents .....	14
Table 3: Marital Status of Respondents .....	15
Table 4: Programs offered by Respondents .....	15
Table 5: Respondents knowledge on the use of nose mask .....	16
Table 6: Respondents on what reminds them to wear nose mask.....	21

## LIST OF FIGURES

Figure 1; Respondents view on incorrect usage of nose mask poses a health risk.....	17
Figure 2; Respondents perception on how face mask is effective in preventing spreading of droplets.....	18
Figure 3; Respondents view on one should remove his or her face mask when talking .....	19
Figure 4; Respondents view on one should put on nose mask when in public places.....	20
Figure 5; Respondents view on nose mask prevents virus transmission. ....	21

## **ABBREVIATION**

WHO	World Health Organization
SARS-CoV-2	Severe Acute Respiratory Syndrome Coronavirus 2
COVID-19	Coronavirus disease-19
RGN	Registered General Nursing
RM	Registered Midwifery
NAP/NAC	Post Basic Midwifery
SPSS	Statistical Package for Social Sciences

## **ACKNOWLEDGEMENT**

We would like to extend our deepest gratitude and praise to the Almighty God for providing us with strength and knowledge for this study.

We are much grateful to the Management and staff of the Holy Family Hospital Nursing and Midwifery Training College, Berekum for allowing us to conduct the study in the college.

We also thank the Department of Nursing of the Kwame Nkrumah University of Science and Technology for providing us with the guideline for the study.

Our deepest appreciation goes to our supervisor, Mr. Amos Owusu for his constructive criticisms, objective guidance, and direction for the study and the entire staff of the College for their support throughout the study.

We are grateful to all the respondents for their contributions and efforts. Without them, the study would not be possible. We also appreciate our parents for their financial, emotional, psychological, and spiritual support throughout our education.

Finally, our sincere appreciation goes to the authors and publishers of pieces of literature used in the study. Thank you all and God bless you.

# CHAPTER ONE

## INTRODUCTION

### 1.0 Background of the study

Coronavirus disease 2019 (COVID-19) is caused by infection with the novel SARS-CoV-2 coronavirus. The disease, which primarily affects the respiratory tract, was first described in Wuhan, China, at the end of 2019. It developed into an epidemic in that country in January 2020 and was declared a pandemic in March 2020. Evidence supports the potential for transmission in super spreading events and infection usually occurs through transmission of droplets. Aerosol transmission is possible, especially in closed, poorly ventilated rooms (Torsten, Laura, Stefan, & Luise, 2021). At the beginning of the spread of the novel pathogen SARS-CoV-2, it was necessary to make far-reaching decisions even without available explicit scientific data. The initial assumption was that the pandemic emergency measures were set in place to reduce the acute threat of the public health system effectively and swiftly. In April 2020, the World Health Organization (WHO) recommended the use of masks only for symptomatic, ill individuals and health care workers and did not recommend its widespread use (Kai, et al., 2021). In times of a global pandemic, people are widely encouraged to wear face masks covering mouth and nose in order to minimize risk of infection. However, this preventive measure might crucially affect social interaction: As wearing a face mask leaves only the upper areas of the face visible, namely eyes and forehead this raises the question whether covering lower facial areas might interfere with successful emotion recognition. Emotions have a regulative social function and constitute an important factor in appropriate interaction between individuals: Emotional expressions instigate informative processes that influence individuals' behaviour during social interaction (Melina, Claudia, & Birgit, 2022).

Accordingly, the WHO did not recommend general or uncritical use of masks for the general population and expanded its risk and hazard list within just two months. While the April 2020 guideline highlighted the dangers of self-contamination, possible breathing difficulties and false sense of security, the June 2020 guideline found additional potential adverse effects such as headache, development of facial skin lesions, irritant dermatitis, acne or increased risk of contamination in public spaces due to improper mask disposal. Physicians are in a conflict of interest concerning this matter. On the one hand, doctors have a leading role in supporting the authorities in the fight against a pandemic. On the other hand, doctors must, in accordance with the medical ethos, protect the interests, welfare and rights of their patient's third parties with the necessary care and in accordance with the recognized state of medical knowledge. A careful risk-benefit analysis is becoming increasingly relevant for patients and their practitioners regarding the potential long-term effects of masks.

### **1.1 Problem statement**

Local and national governments have taken unprecedented measures in response to the outbreak of SARS-CoV-2-induced COVID-19, including the isolation of patients, enforcement of quarantine of all contacts, cancellation of public transportation, exit controls, travel restrictions, social contact restrictions and requirement of people to wear mouth-nose masks. Considering the globally and locally rising infection rates, the German federal state issued different ordinances to contain the spread of the virus. The first ordinance published in March 2020 included a lockdown with limited social contacts, maintaining a minimum distance of at least 1.5 m in public and closing of service establishments and restaurants as well as teaching facilities. A maximum of two people from different households were allowed to meet (Hannah, Aline, Ulrike, & Tino, 2020). Since April 2020, governments have been requiring people to

Strengths and limitations of this study wear mouth–nose masks in shops and public transportation (Hannah, Aline, Ulrike, & Tino, 2020). A careful risk–benefit analysis is becoming increasingly relevant for patients and their practitioners regarding the potential long-term effects of masks. Although there seems to be a consensus among the decision makers who have introduced mandatory masks that medical exemptions are warranted, it is ultimately the responsibility of individual clinicians to weigh up when to recommend exemption from mandatory masks. The lack of knowledge of legal legitimacy on the one hand and of the medical scientific facts on the other is a reason for uncertainty among clinically active colleagues (Kai, et al., 2021).

The lack of knowledge of legal legitimacy on the one hand and of the medical scientific facts on the other is a reason for uncertainty among clinically active colleagues (Kai, et al., 2021) hence this research is been conducted to find out the knowledge, perception and practice of the use of nose mask among students of Holy Family Nursing and Midwifery Training College, Berekum. Given this, it is important to investigate the knowledge, perception and practice of the use of nose mask among students of Holy Family Nursing and Midwifery Training College, Berekum.

## **1.2 General objective of the study**

The main objective is to find out the knowledge, perception and practice of the use of nose mask among students of Holy Family Nursing and Midwifery Training College, Berekum.

## **1.3 Specific Objectives**

1. To determine the knowledge of the use of nose mask among students of Holy Family Nursing and Midwifery Training College, Berekum.

2. To determine the perception of the use of nose mask among students of Holy Family Nursing and Midwifery Training College, Berekum.
3. To find out how frequently students of Holy Family Nursing and Midwifery Training College, Berekum practice the wearing of nose mask.

#### **1.4 Operational Definition**

**Knowledge:** defined as having an adequate understanding of the use of nose mask.

**Nose mask:** defined as a mask that fits snugly around the nose.

**Perception:** defined as the way in which something is regarded, understood or interpreted.

**Student:** defined as a person who is studying at an educational facility/institution

**Covid-19:** defined as an acute respiratory illness in humans caused by a novel coronavirus (SARS-CoV-2).

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

This chapter contains a review of relevant literature related to the research topic: “Knowledge, perception, and practice of the use of nose mask among students of Holy Family Nursing and Midwifery Training College, Berekum”. The sources of information include; books, journals, online articles and research reports.

#### **2.1 Overview**

Facemasks are considered a cheap, effective and safe method to control the spread of most airborne disease especially coronavirus disease-19 (COVID-19). Covering the face is one of the major measures recommended for prevention. It prevents the spread of droplets and help in maintaining respiratory hygiene. Several guidelines suggest that the use of face masks reduces infection transmission. A study from Bangladesh suggested that about 72% of people strongly believed that covering the nose and mouth when coughing and sneezing prevents COVID-19 transmission. Masks are considered as one of the most important protective measures for all individuals. Masks can be made of different materials and are of various designs (Kadir, Subish, Pathiyil, & Nisha, 2021). The correct use of nose masks is essential, as a wrong use and disposal may increase the rate of contagious (Massimiliano, Alessia, & Ruggiero, 2021).

#### **2.2 Knowledge on the use of Nose mask**

Wearing of nose mask help is one of the best and effective measures in the prevention of disease transmission. By March 2020, the outbreak of COVID-19 subsequently spread to more 26 countries worldwide which promoted the World Health Organization to declare the infection

a pandemic, indicating significant public health emergency of international concern. As with other respiratory pathogens, including flu and rhinovirus, the transmission is believed to occur through respiratory droplets from coughing and sneezing. It is now concluded that sustained human-to-human transmission aided in the establishment of the COVID-19 epidemic. Although the consensus of asymptomatic individuals transmitting the virus before symptoms develop seems to be inconclusive, a risk on transmission cannot be fully excluded. This data suggests that the use of respiratory protection and isolation is the best way to contain this epidemic (Gobi, Sera, Shargunan, & Fouzia, 2020).

A phenomenological study was conducted by Labrague et al., (2017) in Southern Nigeria among student nurses at the clinical learning environment to determine their knowledge on nose mask usage. A purposive sampling method was employed to recruit 109 participants for the study. Findings revealed a low (8%)-to-moderate (58%) knowledge of nose mask use among nursing students.

Mersha et al. (2021) conducted an exploratory study in Nigeria to assess the knowledge of nurses on facemask use at St. Catherine's Specialist Hospital, Abuja. A total of 200 respondents were recruited through stratified sampling. The findings showed that nurses' knowledge of facemask usage was moderate (84%) among the total study population. Again, 15% of the participants had poor knowledge and 1% had good knowledge on the use of face mask.

Mahdi et al. (2020) conducted a quantitative cross-sectional study among 506 domestic visitors to the prophet's Mosque in Al Madinah city to find out their knowledge, perception, and practices of face mask usage. Findings revealed that a quarter (24.5%) of the participants had

poor knowledge on nose mask usage. Nearly three-quarters (74.3%) had a medium knowledge, and a small proportion (1.3%) had a high knowledge on the use of face mask.

Van De Mortel, Kermodé, Prozano, and Sansoni (2018) conducted a study to examine the use of facemask knowledge, beliefs, and practices of Italian nursing and medical students to inform undergraduate curricula. Questionnaires were administered to a convenience sample of 117 nursing and 119 medical students in a large university in Rome, Italy. The result of the study showed that nursing students' facemask knowledge, compliance, and self-reported facemask practices were significantly higher than that of medical students.

Yousif et al. (2020) conducted a cross-sectional study on nurses and doctors working in Rabit University Hospital, Sudan. A total sample size of 237 including 138 nurses and 99 doctors were used. The study assessed the knowledge of healthcare workers on nose mask use. The results of the study showed that 35.6% of the respondents demonstrated sufficient knowledge on the use of nose mask. The study concluded that insufficient knowledge of nurses and doctors may account for the high rate of coronavirus infections in the hospital.

Nair et al. (2016) conducted a cross-sectional study in Navodaya Medical College (NMC); one of the biggest teaching hospitals in Raichur, India. A sample size of 144 nursing students was used for the study. The aim was to assess the nursing student's knowledge of facemask use using questionnaire. The results showed that knowledge on nose mask was moderate (107 out of 144, 74%) among the total study population. Only 9% of the participants (13 out of 144) had good knowledge regarding the use of nose mask. The study showed the importance of improving the current training programs targeting nose mask practices among nursing students.

Al-Mohaithef, Chandramohan, Hazazi, and Elsayed (2020) conducted a cross-sectional study to determine student nurses' knowledge and perceptions of the use of nose mask in the Asir region, Kingdom of Saudi Arabia. The World Health Organization's Knowledge and Perception Questionnaire for Health-care Workers were administered to collect data for the study. A total of 243 student nurses from six hospitals in the region were sampled for the study. The results showed that about 51.9% of the student nurses demonstrated a good level of knowledge on the use of facemask and 50.2% of student nurses had a negative perception on the use of nose mask. The study concluded that educational interventions should be undertaken to enhance the knowledge of student nurses and to promote positive perceptions on the use of face mask among student nurses.

A study conducted by Ojong (2016) in General Hospital Ikot Ekpene, Akwa Ibom State, Nigeria, revealed that 82.4% of respondents had good knowledge on the use of nose mask and 17.6% had poor knowledge on the usage nose mask. Observations on the practice of nose mask revealed that 42.2% of respondents always wore nose mask and 34.3% wore occasionally, while 23.5% never wore nose mask.

### **2.3 Perception on the use of Nose mask**

Mahdi et al. (2020) conducted a cross-sectional survey among domestic residents who visited the prophet's Mosque in Al Madinah city, Saudi Arabia between July 31 and August 3, 2020. The study aimed to assess the knowledge, perception, and practices of the use of nose mask among visitors to the Prophet's Mosque in Al Madinah City, Saudi Arabia. A self-administered electronic questionnaire was used to collect data. Four hundred participants aged 18–65 years completed the survey, of which 215 (53.8%) were females. The study found that most participants believed wearing of clean nose mask to be hygienic (263, 65.8%), reuse of

used nose mask (195, 48.8%), and no wearing nose mask (224, 56%) were very effective method in preventing disease transmission. It was concluded that most of the visitors to the mosque had a positive perception on the use of nose mask in prevention disease transmission, including coronavirus.

Dwipayanti, Lubis, and Harjana (2021) conducted a cross-sectional online survey from May 28 to June 12, 2020, with 896 valid responses obtained from Indonesian citizens over 18 years old. An online questionnaire was created using Google Forms to collect data. In this study, 66.9% of respondents perceived that they have a medium to low risk of contracting COVID-19, and 65% of respondents perceived that they would only have mild to no symptoms if they contracted COVID-19. Many respondents perceived the use of nose mask as an effective measure to prevent COVID-19 transmission and other diseases (61.3%) and had less negative perceptions toward nose mask practice (77%).

An exploratory survey conducted by Larbi et al. (2019) on the effective use and practice of the nose mask usage among health trainees at Minash University, Sudan. The total of 150 respondents were recruited through convenience sampling. The findings showed that majority (90%) of the respondents believed that effective use of nose mask can help in preventing disease transmission.

#### **2.4 Frequency of Practice of the use of Nose mask**

Akwaah, Abankwa, and Siaw (2019) employed a descriptive design to research selected students from which were Saint Monica's Senior High School, St. Joseph's Senior High School, and Amaniampong Senior High School all in the Mampong Municipal Assembly in the Ashanti Region of Ghana. The stratified random sampling method was used for the study. The total sample size for the study was three hundred (300). The study indicated that 22.9% of the students

said they always wore nose mask during classes' hours, 68.8% also said they sometimes wear nose mask during classes' hours, and 6.2% said they never wear nose mask during classes' hours.

In an observational study conducted among nursing and midwifery students at Korle-Bu Teaching Hospital in Ghana, a nose mask compliance rate ranging from 9.2% to 57% among nursing students and 9.6% to 54% among student midwives was reported

A study conducted among nurses at Prince Court Medical Centre-Kuala Lumpur, Malaysia by Tobaiqy et al. (2020) on the use of nose mask during wound dressing. A total of 45 respondents were used for the study. The findings indicated that 87% of the respondents wear nose mask always during wound dressing, 10% of the respondents wears nose mask sometimes during wound dressing and 3% of the respondents do not wear nose mask during wound dressing.

Yawson and Hesse (2018) conducted a cross-sectional study on nurses and doctors working in Rabit University Hospital, Sudan. A sample size of 237 health workers comprising 138 nurses and 99 doctors were used. The study found out that proper nose mask practices were found in only 18.1% of healthcare workers. The study added that most healthcare workers believed that notice boards reminded them to wear their nose mask.

## **CHAPTER THREE**

### **MATERIALS AND METHODS**

#### **3.0 Introduction**

This chapter details, the study area and study population, study design, sampling techniques, data collection method and instrument, data analysis techniques, ethical consideration, and the limitations of the study.

#### **3.1 Study area**

The study was carried out at the Holy Family Nursing and Midwifery Training College, Berekum. The College is located in the western part of Berekum, on the premises of The Holy Family Hospital. The college was established in the year 1957 by Sr. Catherine (Patrick) Shean of the Medical Mission Sisters. The College has a student population of 688 students comprising 100 males and 588 females. There are 29 teaching staff and 55 non-teaching staff. The College runs three Diploma programs; Registered General Nursing (RGN), Registered Midwifery (RM), and a two-year Post Basic Midwifery (NAP/NAC). The College has a school bus which takes students on educational trips, funerals, weddings and other social gatherings related to the college. The most spoken languages on campus are English and Twi. The college has a good source of drinking water (pipes and borehole) which help students in their daily activities. There is also electricity in the college. The security in the college is very tight.

#### **3.2 The study population**

The target population is all nursing and midwifery students of Holy Family Nursing and Midwifery Training College, Berekum whereas the accessible population is all first-year students of the College.

### **3.3 Study design**

A descriptive study design was used for the study. This design was used for the study because there was the need to describe the characteristics of the phenomenon being studied. The design also allows for us to observe the students in their natural and unchanged environment. The data collection in descriptive research allows for the gathering of in-depth information about the research problem.

### **3.4 Sampling technique and Size**

The proportionate stratified sampling technique was used to select samples for the study. This was chosen because sampling is made from all the strata thereby making the overall sample unbiased as well as ensuring that equal proportions of each stratum are well represented.

The accessible population for the study is all first-year students with a population of 262. They were grouped into their various classes (stratum), that is RGN 24 (117 students), RM 19 (122 students), and PBM 5 (23 students). The sample size for the study was 100 students. The total number of students from each class was obtained by dividing the sample size of the study by the population size and multiplying the result by the total number of students in each class. A lottery method was used to recruit 44 students from RGN 24, 46 students from RM 19, and 10 students from PBM 5.

### **3.5 Data collection methods and instruments**

Data collection was done through the use of structured questionnaires consisting of both closed-ended and open-ended questions for easy expression of views and ideas. This was chosen as the method of data collection because it is relatively cheaper, avoided embarrassment on the part of the respondents, and the complete anonymity of respondents. Questionnaires were shared with the students in their various classrooms during the class period. We explained to them how

the questionnaires were to be filled. Each student used a maximum of 20 minutes to complete the questionnaire.

### **3.6 Data analysis techniques**

The data obtained from the study were checked for accuracy, utility, and completeness. The data were coded and analyzed using frequencies, tables and graphs and the results were presented in tables or figures.

### **3.7 Ethical consideration**

An introductory letter was obtained from the College before we conducted the study. The respondents were well informed about the purpose of the study and their consent was sought. Respondents were assured of anonymity and confidentiality by not providing any form of identification on the questionnaire. However, identification codes were used to represent the respondent according to their chronologic entry into the study. Respondents were allowed to participate and withdraw from the study voluntarily at any time without any penalty.

### **3.8 Limitation of the study**

The limitations to this study were, the limited time with which we had to complete the study and the smaller sample size that was chosen for the study. Because the sample size was small, we could not generalize the study findings.

## CHAPTER FOUR

### DATA ANALYSIS AND RESULTS

#### 4.0 Data Presentation & Analysis

This chapter deals with the analysis of data collected from the field of study and the results obtained from the analysis. The study findings are presented in tables or figures.

#### 4.1 Demographic Profile of Respondents

**Table 1: Age Distribution of Respondents**

Variable	Categories	Frequency (n)	Percentage (%)
Age	18-22	44	44
	23-27	30	30
	28-32	12	12
	Above 32	14	14

From Table 1, most of the respondents (44%) were aged between 18-22 years, less than half of the respondents (30%) were aged between 23-27 years. Few of the respondents (14%) were aged above 32 years and 12% were aged between 28-32 years.

**Table 2: Sex Distribution of Respondents**

Variable	Categories	Frequency (n)	Percentage (%)
Sex	Male	12	12
	Female	88	88

The majority of the respondents (88%) were females and 12% were males.

**Table 3: Marital Status of Respondents**

Variable	Categories	Frequency (n)	Percentage (%)
Marital Status	Single	82	82
	Married	18	18
	Divorced	0	0

Most of the respondents (82%) were single and 18% of the respondent were married. None of the respondents was divorced.

**Table 4: Programs offered by Respondents**

Variable	Categories	Frequency (n)	Percentage (%)
Program	RGN	40	40
	RM	36	36
	PBM	24	24

From Table 4, 40% of the respondent were Registered General Nursing students, 36% were Registered Midwifery students and 24% were Post Basic Midwifery students.

#### **4.2 Knowledge of Nursing Students on wearing nose mask**

Respondents were asked to define nose mask in their own words. The majority of the respondents (n=95, 95%) wrote “*nose mask is a protective equipment worn at the nose to prevent infection*”.

**Table 5: Respondents knowledge on the use of nose mask**

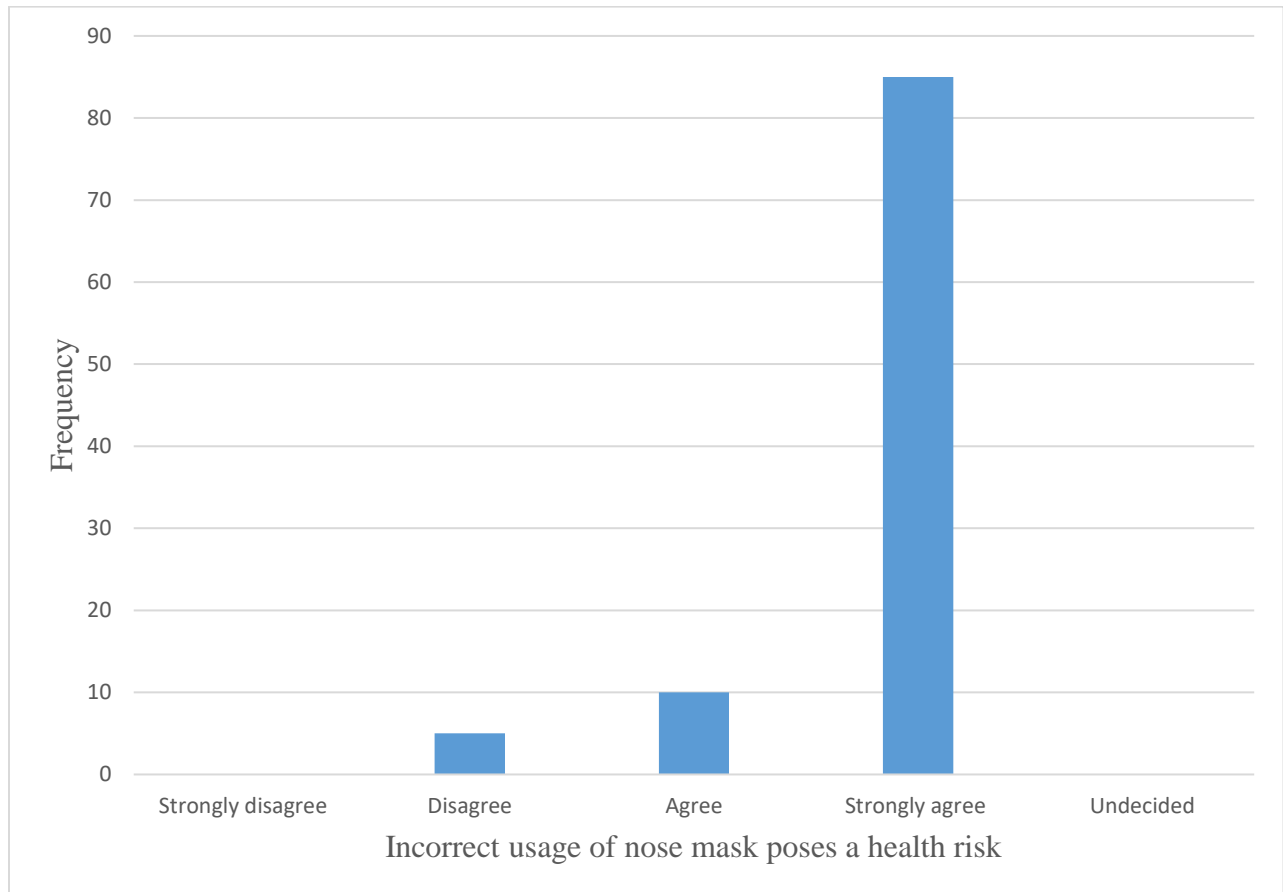
<b>Statement</b>		<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Agree</b>	<b>Strongly Agree</b>	<b>Do not Know</b>
Nose mask prevents the direct transfer of infectious pathogens.	n	4	2	54	40	0
	%	4	2	54	40	0
One way of reducing COVID 19 transmission is to promote the use of nose mask.	n	8	2	30	60	0
	%	8	2	30	60	0
The side of mask with folds should face downward and outward.	n	4	2	30	64	0
	%	4	2	30	64	0

From table 6; majority of the respondents (54%) agreed that nose mask prevents the direct transfer of infectious pathogens and 2% of respondents disagreed with the statement.

Also, the majority of the respondents (60%) strongly agreed that one way of reducing COVID 19 transmission is to promote the use of nose mask and 2% of respondents strongly disagreed and disagreed respectively with the statement.

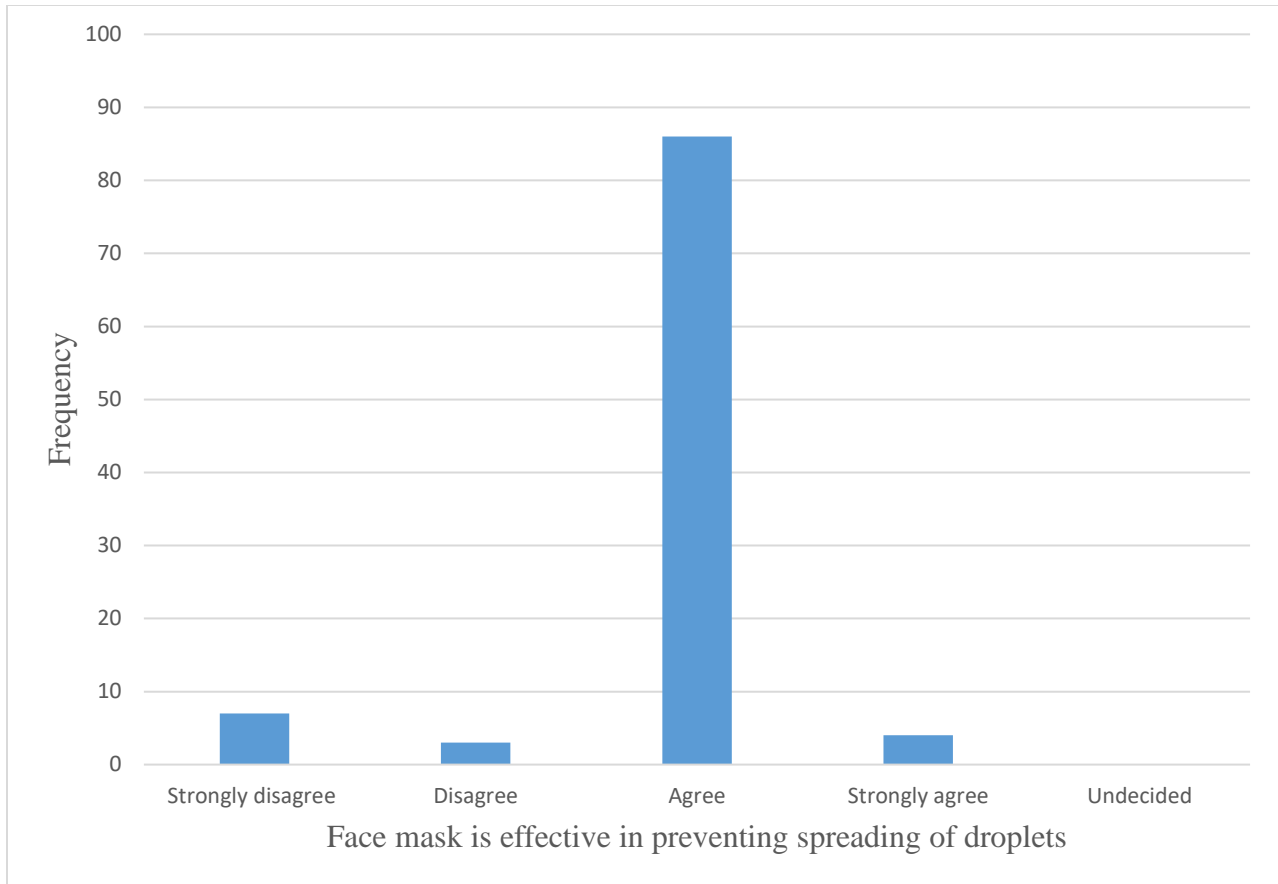
In addition to the above, majority of the respondents (64%) strongly agreed that the side of mask with folds should face downward and outward and 2% of the respondents disagreed.

### 4.3 Perception about the Effective use of nose mask.



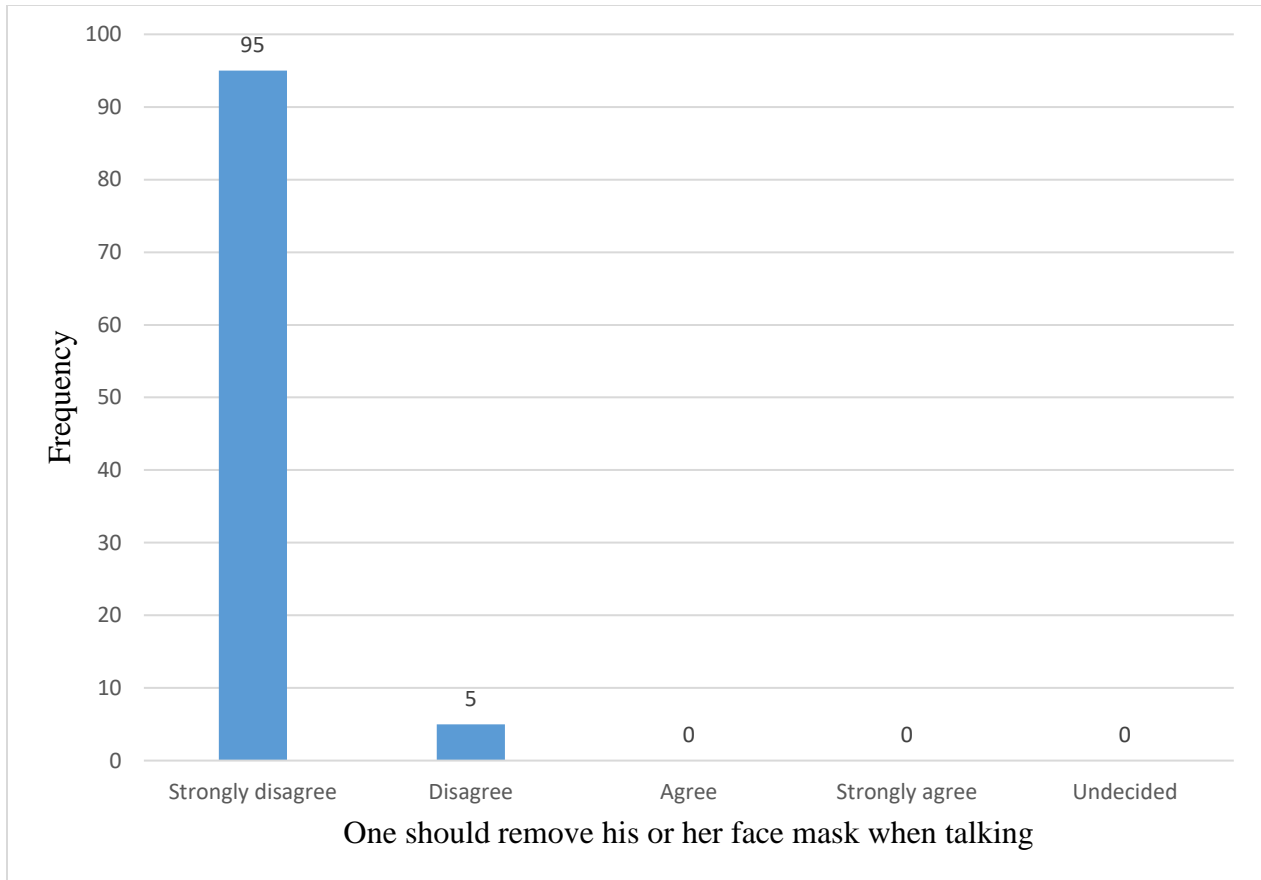
**Figure 1; Respondents view on incorrect usage of nose mask poses a health risk**

From figure 1; the majority of the respondents (85%) strongly agreed that incorrect usage of nose mask poses a health risk and 10% of the respondents agreed with this assertion. Few of the respondents (5%) disagreed that incorrect usage of nose mask poses a health risk.



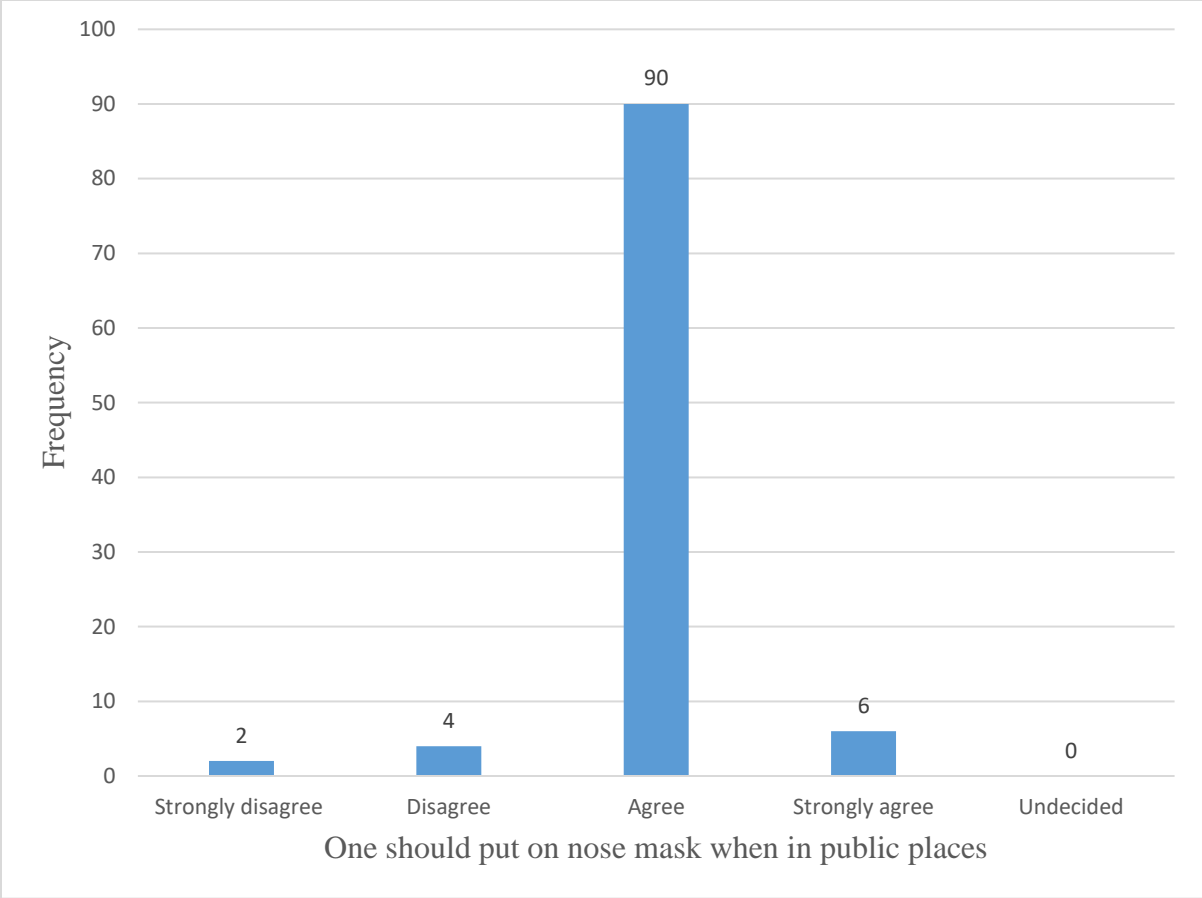
**Figure 2; Respondents perception on how face mask is effective in preventing spreading of droplets.**

From figure 2, majority of the respondents (86%) agreed that face mask is effective in preventing spreading of droplets and 3% of the respondents disagreed.



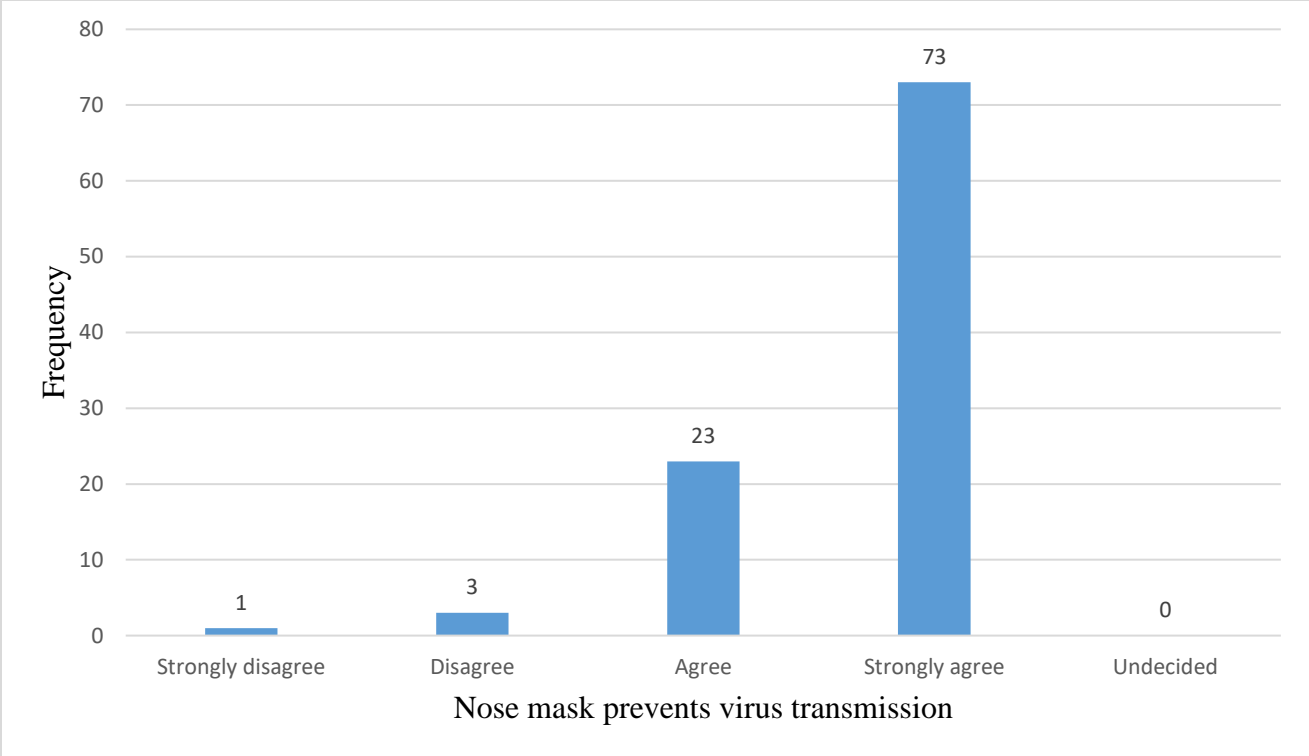
**Figure 3; Respondents view on one should remove his or her face mask when talking**

From figure 3, majority of the respondents (95%) strongly disagreed that one should remove his or her face mask when talking and few of the respondents (5%) disagreed on the statement.



**Figure 4; Respondents view on one should put on nose mask when in public places**

From figure 4, majority of the respondents (90%) agreed that one should put on nose mask when in public places, 6% of the respondents strongly agreed to the statement, few of the respondents (4%) disagreed and 2% of the respondents strongly disagreed to the assertion.



**Figure 5; Respondents view on nose mask prevents virus transmission.**

From figure 5, majority of the respondents (73%) strongly agreed that nose mask prevents virus transmission and 1% of the respondents strongly disagreed.

**4.4 Frequency of Nose mask Practice**

**Table 6: Respondents on what reminds them to wear nose mask**

Variable	Categories	Frequency (n)	Percentage (%)
What reminds you to wear nose mask?	Television	4	4
	Notice board	2	2
	Pictures	6	6
	Friends	0	0
	On your own	88	88

The majority of the respondents (88%) indicated they are reminded to wear nose mask on their own. Few of the respondents (6%) indicated they are reminded by pictures followed by television (4%) and notice board (2%). None of the respondents indicated that they are reminded by their friends to wear nose mask.

## CHAPTER FIVE

### DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

#### 5.0 Introduction

This chapter provides an in-depth look at the major findings that emerged out of the research, comparison of the analyzed data with findings from other literature, conclusion, and recommendations.

#### 5.1 Discussions

##### 5.1.1 Knowledge of Nursing Students on the use of nose mask

Respondents were asked to define nose mask in their own words. An important finding from the data gathered suggested that the majority (n=95, 95%) of the respondents wrote ‘*nose mask is a protective equipment worn at the nose to prevent infection*’. Similarly, according to American Center for Disease Control and Prevention (2020), nose mask is a mask or protective covering for the face and nose from the bridge to the upper lip area.

Majority of the respondents (54%) agreed that nose mask prevents the direct transfer of infectious pathogens. Similarly, Mersha et al. (2021) conducted an exploratory study in Nigeria to assess the knowledge of nurses on facemask use at St. Catherine’s Specialist Hospital, Abuja. The findings showed that nurses’ knowledge of facemask usage was moderate (84%) among the total study population.

Majority of the respondents (60%) strongly agreed that one way of reducing COVID 19 transmission is to promote the use of nose mask. Thirty percent of the respondents agreed that one way of reducing COVID 19 transmission is to promote the use of nose mask. This finding is contrary to a study conducted by Mahdi et al. (2020) to find out their knowledge, perception, and

practices of face mask usage. Findings revealed that a quarter (24.5%) of the participants had poor knowledge on nose mask usage. Nearly three-quarters (74.3%) had a medium knowledge, and a small proportion (1.3%) had a high knowledge on the use of face mask.

Majority of the respondents (64%) strongly agreed that the side of mask with folds should face downward and outward. This finding is contrary to a study conducted by Yousif et al. (2020) to assess the knowledge of healthcare workers on nose mask use. The results of the study showed that 35.6% of the respondents demonstrated sufficient knowledge on the use of nose mask.

### **5.1.2 Perception about the Effectiveness of nose mask usage.**

Majority of the respondents (85%) strongly agreed that incorrect usage of nose mask poses a health risk. This finding is in line with a study conducted by Mahdi et al. (2020) to assess the knowledge, perception, and practices of the use of nose mask among visitors to the Prophet's Mosque in Al Madinah City, Saudi Arabia. The study found that most participants believed wearing of clean nose mask to be hygienic (263, 65.8%), reuse of used nose mask (195, 48.8%), and no wearing nose mask (224, 56%) were very effective method in preventing disease transmission. It was concluded that most of the visitors to the mosque had a positive perception on the use of nose mask in prevention disease transmission, including coronavirus.

Majority of the respondents (86%) agreed that face mask is effective in preventing spreading of droplets and majority of the respondents (95%) strongly disagreed that one should remove his or her face mask when talking. This finding is in line with a study conducted by Larbi et al. (2019) on the effective use and practice of the nose mask usage among health trainees at Minash University, Sudan. The findings showed that majority (90%) of the respondents believed that effective use of nose mask can help in preventing disease transmission.

### **5.1.3 Frequency of Practice of the use of Nose mask**

The majority of the respondents (88%) indicated they are reminded to wear nose mask on their own. Few of the respondents (6%) indicated they are reminded by pictures followed by television (4%) and notice board (2%). None of the respondents indicated that they are reminded by their friends to wear nose mask. These findings are not in line with a study conducted by Yawson and Hesse (2018). They reported that most healthcare workers believed that notice boards reminded them to wear their nose mask.

### **5.2 Conclusion**

The following conclusions were drawn from the study;

1. The majority of the respondents (n=95, 95%) had good knowledge of the definition of nose mask.
2. The majority of the respondents (86%) perceived that face mask is effective in preventing spreading of droplets.
3. The majority of the respondents (95%) strongly disagreed that one should remove his or her face mask when talking.
4. The majority of the respondents (88%) said they are reminded to wear nose mask on their own.
5. The majority of the respondents (73%) indicated nose mask prevents virus transmission.

### **5.3 Recommendations**

Based on the findings of the study, the following recommendations are made.

1. Student nurses need to be made aware of the importance of wearing nose mask and the negative effects that will be caused when it is not followed.
2. All people who hold administrative positions in hospitals or schools should take the necessary measures to properly observe and implement the guidelines for wearing nose mask
3. Student nurses and the general public should be educated on the proper way to wear and dispose nose mask.

## REFERENCES

- Akwaah, V., Abankwa, A., & Siaw, W. N. (2019). Perception of students on the use of nose mask in selected senior high schools in Mampong Municipality, Ghana. *European Journal of Education Studies*, 6(2), 275-286.
- Gobi, H. G., Sera, S. G., Shargunan, S. G., & Fouzia, H. B. (2020). Prevalence and acceptance of face mask practice among individuals visiting hospital during COVID-19.
- Hannah, M. Z., Aline, S., Ulrike, T., & Tino, P. (2020). Changes of perceptions and behaviours during the phases of COVID-19 pandemic in German elderly people with neurological disorders: an observational study using telephone interviews.
- Kadir, A., Subish, P., Pathiyil, R. S., & Nisha, J. (2021). General public's knowledge and practice on face mask use during the COVID-19 pandemic.
- Kai, K., Paul, G., Andreas, P., Bernd, K., David, G., Stefan, F., . . . Oliver, H. (2021). Is a Mask That Covers the Mouth and Nose Free from Undesirable Side Effects in Everyday Use and Free of Potential Hazards? *international journal of Environmental Research and Public Health*.
- Massimiliano, S., Alessia, V., & Ruggiero, A. (2021). Community knowledge about the use, reuse, disinfection and disposal of masks and filtering facepieces respirators. *Journal of community health* 46, 786-793.
- Melina, G., Claudia, I. R., & Birgit, D. (2022). The impact of face masks on emotion recognition performance and perception of threat. *Face masks, emotion recognition and perception of threat*.

Torsten, R., Laura, F., Stefan, P., & Luise, W. (2021). Influence of surgical and N95 face masks on speech perception and listening effort in noise. *Face masks reduce speech perception in noise.*

WHO. (2020). *Modes of transmission of virus causing COVID-19: implications for IPC precaution recommendations.* Geneva: World Health Organisation

## APPENDICES

### HOLY FAMILY NURSING AND MIDWIFERY TRAINING COLLEGE, BEREKUM

## QUESTIONNAIRE

### INTRODUCTION

Dear Respondent,

We are students of the above institution researching the topic; Knowledge, perception, and practice of the use of nose mask among nursing students of Holy Family Nursing and Midwifery Training College, Berekum

Kindly answer the under-listed questions by ticking (√) the appropriate box or writing in the space provided. Any information you provide is confidential. Your opinion is neither considered right nor wrong. You can choose to withdraw your participation at any time. It will take approximately 20 minutes to answer this questionnaire.

Thank you.

**PLEASE TICK [√] THE APPROPRIATE BOX WHERE APPLICABLE**

### **SECTION A: Demographic Data**

1. Age: A. 18-22 [ ] B. 23-27 [ ] C. 28-32 [ ] D. Above 32 [ ]
2. Sex: A. Male [ ] B. Female [ ]
3. Marital status: A. Single [ ] B. Married [ ] C. Divorced [ ]
4. Program: a. RGN [ ] b. RM [ ] c. PBM [ ]

**PLEASE TICK [] THE APPROPRIATE BOX WHERE APPLICABLE**

**SECTION B: Knowledge of Nursing Students on the use of nose mask.**

5. Define nose mask in your own words.

.....

.....

No.	Statement	Strongly Disagree	Disagree	Agree	Strongly Agree	Do not Know
6.	Nose mask prevents the direct transfer of infectious pathogens					
7.	One way of reducing COVID 19 transmission is to promote the use of nose mask					
8.	The side of mask with folds should face downward and outward					

**SECTION C: Perception about the Effective use of nose mask**

*Select the most appropriate*

9. Incorrect usage of nose mask poses a health risk

a. Strongly disagree [  ] b. Disagree [  ] c. Agree [  ] d. Strongly agree [  ] e. Undecided [  ]

10. Face mask is effective in preventing spreading of droplets

a. Strongly disagree [ ] b. Disagree [ ] c. Agree [ ] d. Strongly agree [ ] e. Undecided [ ]

11. One should remove his or her face mask when talking

a. Strongly disagree [ ] b. Disagree [ ] c. Agree [ ] d. Strongly agree [ ] e. Undecided [ ]

12. One should put on nose mask when in public places

a. Strongly disagree [ ] b. Disagree [ ] c. Agree [ ] d. Strongly agree [ ] e. Undecided [ ]

13. Nose mask prevents virus transmission

a. Strongly disagree [ ] b. Disagree [ ] c. Agree [ ] d. Strongly agree [ ] e. Undecided [ ]

#### **SECTION D: Frequency of the use of nose mask**

14. What reminds you to wear nose mask?

a. Television [ ] b. Notice board [ ] c. Pictures [ ] d. Friends [ ] e. On your own [ ]

15. How many times do you wear nose mask in a day?

a. Once [ ] b. Twice [ ] c. Thrice [ ] d. More than 3 times [ ] e. None [ ]

16. How would you rate your overall compliance with nose mask?

a. Low [ ] b. Moderate [ ] c. High [ ] d. None [ ]

NATIONAL CATHOLIC HEALTH SERVICE (DIOCESE OF SUNYANI)  
**HOLY FAMILY NURSING AND MIDWIFERY TRAINING COLLEGE**  
**BEREKUM**



**BANKERS:**

Ghana Commercial Bank, Berekum  
Agric Development Bank, Berekum

Fidelity Bank, Berekum

HFNMTC/GC/011/081722

Our Ref. ....

Your Ref. ....



P. O. Box 21,  
Berekum, B/A  
Ghana, W/Africa  
Tel. 0352222124  
Fax: 0352222474

August 17, 2022

Date .....

Amos Owusu  
Holy Family NMTC  
Post Office Box 21  
Berekum

Dear Mr Owusu

**RE: PERMISSION TO CONDUCT RESEARCH**

With reference to your Memorandum dated August 10, 2022, I write to notify you that the students listed below have been granted permission to conduct their research in the College on the topic 'Knowledge, perception and practice of use of nose mask among students of Holy Family Nursing and Midwifery Training College, Berekum'

1. Abaah Gifty
2. Owusu Hilda Serwaa

Thank you

Yours sincerely

Monica Nkrumah (FGCNM)  
Principal

PRINCIPAL  
HOLY FAMILY NURSING AND  
MIDWIFERY TRAINING COLLEGE  
BEREKUM

