Knowledge, Attitudes, and Practices of Medical Technologists in the Philippines, Thailand, and Malaysia on COVID-19

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Abstract: - The Coronavirus disease 2019 caused a global rise in cases and deaths, and as these numbers rose, the need for trained and equipped Medical Technologists became urgent. Lack of knowledge towards the previous strain of the virus has led to various inefficiencies. This study explored the effects of the Medical Technologists' knowledge, attitudes, and practices on their behaviors towards COVID-19. A cross-sectional design was used in the study wherein a total number of 200 Medical Technologists from the Philippines, Thailand, and Malaysia partook in the study. A survey questionnaire was disseminated through Google Forms. Descriptive statistics together with the Chi-Square test and Fisher's Exact test was used to measure the difference between the observed outcomes from the expected outcomes and to determine what parameters are significant and have effect on the observed outcomes. Results show that knowledge alone is not sufficient enough to cause a change in behavior because a direct relationship among the knowledge, attitudes, and practices must first be established, attitudes do not affect their behaviors as there is a lack of consistency within the different factors that affect the attitudes, and practices do not display any effect towards behavior as several factors under practices hinder behavioral change. In conclusion, knowledge, attitudes, and practices are not sufficient indicators that could cause any effect towards the Medical Technologists' behaviors. External and internal factors such as their age, gender, and working environment have varying effects on their behaviors. To improve the attitudes of the Medical Technologists and advocate for more preferable practices, it is recommended that an emphasis must be made to figure out the different factors that affect behavior and improve upon these factors.

Key Words: — ***COVID-19, Medical Technology, knowledge, attitudes, practices, behaviours.***

I. INTRODUCTION

A. Background of the Study

The world got struck with an emerging respiratory disease, Coronavirus disease 2019 or COVID-19, a virus that causes severe acute respiratory syndrome (SARS-CoV-2), that led the world into a pandemic. It all started in Wuhan, China, where the Coronavirus (COVID-19) first appeared in early December 2019. As the cases spread throughout the world, there was an urgent need for trained and equipped health care professionals. Medical Technologists or Medical Laboratory Scientists were Also considered front liners, though patients and the public may not often see them.

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As front liners who are exposed to the virus first-hand, the level of risk these laboratory professionals face was unprecedented. Hence, there was a need to determine the knowledge, attitudes, and practices of Medical Laboratory Scientists on COVID-19 to mitigate the risks of exposure they face every day. However, there were hardly any studies that focus on knowledge, controllability, and the perceived severity of COVID-19. Studies showed that the health care professionals lacked the knowledge and attitudes towards the previous strain of this virus, SARS and MERS, and the new strain, COVID-19 (Aldhaleei et al., 2020). This led to several misunderstandings among the health care professionals, which caused the delays in preventing efforts and in providing the necessary treatments to the infected (Aldhaleei et al., 2020), which in turn led to the rapid increase of nosocomial transmission, putting the immunocompromised and other patient's lives at risk. With the rise of cases of COVID-19 in the Philippines, Malaysia, and

Thailand, medical professionals, especially Medical Laboratory Scientists, played a huge and vital role in combating the virus and preventing its spread to the communities. Furthermore, knowledge played a crucial role in influencing Medical Technologists or Medical Laboratory Scientists' attitudes and practices in combating COVID-19. Hence, the group investigated the level of knowledge, attitudes, and practices of Medical Technologists during this global health crisis.

B. Objectives of the Study

General Objective:

Given that each country has developed its measures and guidelines to deal with the prevention and control of COVID-19, their Medical Technologists' practices would be varied. The research assessed the significant correlation between the Medical Technologists' knowledge, attitudes, practices, and its impact on their behaviors towards COVID-19. This answers the following objectives explicitly:

- To determine the demographic characteristics of the respondents.
- To determine significant correlation between the Medical Technologists' knowledge and its impact on their behaviors towards COVID-19.
- To determine significant correlation between the Medical Technologists' attitudes and its impact on their behaviors towards COVID-19.
- To determine significant correlation between the Medical Technologists' practices and its impact on their behaviors towards COVID-19.

C. Hypotheses

The researchers hypothesized the following:

- The knowledge of the Medical Technologists regarding COVID-19 is significantly related to their practice of preventing the transmission of COVID – 19 in their set-up.
- The attitudes of the Medical Technologists regarding COVID-19 is significantly related to the perceptions of preparedness of their institutions in managing the COVID-19.
- The practices of the Medical Technologists during the COVID-19 pandemic are significantly related to their perceptions of the complications of the COVID-19 cases.

D. Significance of the Study

On March 11, 2020, the WHO officially declared the Covid-19 as a Global Pandemic. The newly discovered coronavirus caused the Covid-19 Pandemic. This virus affected different people in different ways, and because this was a novel virus, people's knowledge, attitudes, and practices were minimal and variable. This study would be significantly used by the Medical Technologists in the Philippines, Thailand, and Malaysia to further assess the extent of their knowledge, their attitudes in handling Covid-19, and their current practices as Medical Technologists to improve their work satisfaction as this study would provide a comprehensive outlook and a broader view on the knowledge, attitudes, and practices of the Medical Technologists from the Philippines, Thailand, and Malaysia to the Covid-19 Pandemic. With this study, there will be a better understanding of how Medical Technologists handle the Covid-19. Through these necessary pieces of information, the faculty will provide a strategic educational plan aligned with its mission and core values to produce competent and skilled Medical Technologists in the future. This study can also serve as a reference or guide for the future researchers. This will help them have a deeper understanding of this topic and provide them new ideas and concepts for upcoming study developments.

E. Scope and Limitations

The study was conducted exclusively to licensed Medical Technologists from the hospitals in the Philippines, Malaysia, and Thailand. Participants were randomly selected Medical Technologists that were on duty amidst the COVID-19 pandemic. This included both males and females from ages that varied from 18 and 65 years. The study excluded non-Medical Technology staff and Medical Technologists from other countries and hospitals that were not mentioned. The data gathered were limited to the respondents' responses to the survey questions disseminated through Google Forms. Survey questions were composed of the Medical Technologists' personal information, the extent of their knowledge regarding COVID-19, their attitudes in handling COVID-19, and their practices as Medical Technologists against COVID-19.

F. Conceptual Framework

Finding a significant correlation between the Medical Technologists' knowledge, attitudes, practices, and its impact on their behaviors towards COVID-19 was the primary goal of this research. In this study, the aforementioned parameters were beneficial in understanding the significant changes in the

general behaviors of the Medical Technologists from the Philippines, Thailand, and Malaysia on Covid-19. This model was used to describe the relationship of each factor with the behavioral change exhibited by the Medical Technologists from the three different countries.

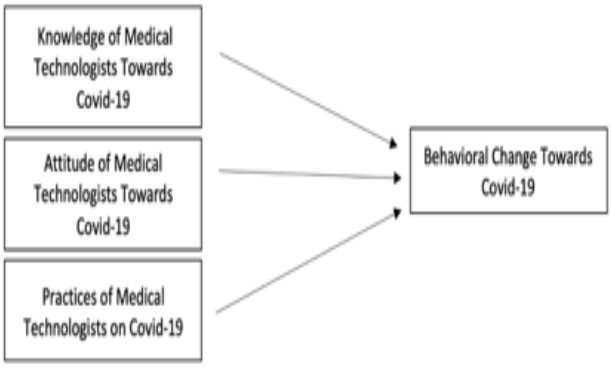

Fig.1. Conceptual Framework

Moreover, this model was useful as it assessed the Medical Technologists personal understanding of general knowledge of the virus etiology, its mode of transmission, and the ways on how they can avoid possible exposure and prevent future infection. In addition, it also gauged their emotional and mental predisposition towards Covid-19. Apart from it, the model also correlated the actions of the Medical Technologists on their day to day lives as medical practitioners as regards to the current pandemic. Along with the KAP model (Bano et al., 2013) that addressed the gap of those three parameters, this model helped in explicitly determining and achieving the main objective of this study which is to clearly understand the impact of the Knowledge, Attitudes, and Practices of Medical Technologists from the Philippines, Thailand, and Malaysia on their behaviors in general concerning the Covid-19 Pandemic.

G. Definition of Terms

- *Attitudes* - a set of emotions, beliefs, and behaviors toward a particular event.
- *Behaviors* - the range of actions and mannerisms made by organisms in relation with their environment.
- *COVID-19* - an infectious disease caused by a newly discovered coronavirus.
- *Knowledge* - facts, information, and skills acquired by a person through experience or education.
- *Medical Laboratory Science* - a branch of medicine that deals with the analysis of blood and other body fluids, which will aid the physician in the diagnosis and treatment of diseases.
- *Medical Technologist* - a licensed professional who has completed a 4-year degree in Medical Technology or Medical Laboratory Science and works in the hospital laboratory, performing a wide range of tests.
- *Practices* - methods, procedures, processes, or rules used by Medical Technologists.
- *Private hospitals* - hospitals owned by a profit company that is funded through payment of medical services by the patients.
- *Public hospitals* - hospitals owned and funded by the government.

II. METHODOLOGY

A. Research Design

The study utilized a cross-sectional design using a descriptive correlation study. The cross-sectional study was used to allow the researchers to measure the factors and the outcomes of the participants' answers selected based on a particular variable of interest using inclusion and exclusion criteria at one specific point in time. The descriptive correlational study was used to see the relationship between the researchers' different variables and systematically describe them.

B. Research Participants

The participants of this research were all members of the population that fit the criteria and who willingly took part in the study. The Medical Technologists who participated in the study were the professionals who were on duty during the COVID-19 pandemic. Two hundred participants were randomly selected using the Slovin's Formula to be the sample size of the study. The participants were males or females who were at least 18 to 65 years old. The researchers excluded non-Medical Technology staff, Medical Technologists who were not on duty during the pandemic, and staff from other countries and hospitals who were not mentioned. A total of 200 Medical Technologists answered the survey questionnaires through online Google Forms for easier access. The study respondents were from the affiliated hospitals with the University in the Philippines, Malaysia, and Thailand.

C. Research Tool

The researchers of this study used survey forms that were specifically catered to gauge the knowledge, attitudes, and practices of the Medical Technologists regarding the COVID-19 pandemic. The researcher made use of Google Forms to disseminate the questionnaire to the participants. The first part of the survey was dedicated to the socio-demographic data of the respondents. Age, sex, and marital status were included. The length of their employment as Medical Technologists and whether they work for a private or public hospital were also under this. The surveys were disseminated through an online platform such as Google Forms due to the current global pandemic restrictions. The survey questions included in this study are in English.

D. Data Gathering Procedure

The researchers submitted a letter asking for permission to conduct a study to the Medical Technology Chief of each hospital that participated in this study. The researchers then secured an ethics clearance from the Ethics Review Committee before the study was conducted. The study started once permission was granted by the Medical Technology Chief from the participating hospitals and ethics clearance was secured.

The researchers obtained the respondents by coordinating with the respective Medical Technology Chief from each participating hospital, and they were made aware of the online survey questionnaire. Prospective respondents were asked to answer the consent form where they were informed about the study protocol, benefits, risks, and significance of the study. The researchers gathered a total of 200 Medical Technologists from the 34 Philippines, Malaysia, and Thailand as the sample population from the 400 total population. They should be licensed Medical Technologists at least 18 years of age and working in the participating hospitals amidst the COVID-19 pandemic. It was ensured that confidentiality would be kept and that all the information gathered would only be used for the study.

The link for the Google Forms was disseminated to the respondents through their respective Medical Technology Chief. The researchers began processing and analyzing the survey results using statistical means to gather all the necessary data.

E. Ethical Considerations

Before conducting the study, the researchers first obtained the approval of the Ethics Review Committee. The autonomy of the respondents was observed. Respondent involvement was voluntary and their consent was sought before they participated in the study. The participating Medical Technologists' identities were kept anonymous to keep their personal information confidential, and this was done by allotting each respondent a unique number code. Survey results and the data collected were used only for the parts essential and relevant to the research. The researchers prioritized the confidentiality of the data gathered from the respondents along with their privacy. Throughout the duration of the study and after, the researchers did not impose harm to the respondents. The researchers were held responsible for the accountability of the results procured from the survey. The researchers embodied honesty and veracity by being transparent and truthful to the study's results. The respondents were not given any stipend and they were allowed to withdraw from the research anytime.

F. Data Analysis

SPSS version 25 was used for analysis. Descriptive statistics were presented using means and standard deviation for continuous variables, frequencies, and percentages for categorical variables. Chi-square test was used to determine whether the observed outcomes differ significantly from the expected outcomes in which the Medical Technologists' knowledge, attitudes, and practices had no significant effects on their behavioral changes towards COVID-19. Fisher's exact test was utilized to determine what parameters such as knowledge, attitudes, and practices of the Medical Technologists from the Philippines, Thailand, and Malaysia were significant and to measure the effect of data sets that were observed. Fisher's exact test was used assuming that the data is non-normally distributed. The statistical significance level was set up at a p-value < 0.05. Cronbach's alpha was computed for reliability analysis to assess the internal consistency of the questions included.

III. Results and Discussion

A. On Demographic Profile of the Respondents

Table 1 displays the age, the biological sex, and marital status of the respondents using frequency and percentage. The majority of the respondents are females at 74%, aged from 25 to 30 years old at 47%, and are single at 72.5%.

Table.1. Demographic Profiles of the Respondents

Demographic	Frequency	Percentage
Age		
21	2	1
22	5	2.5
23	12	6
24	16	8
25	25	12.5
26	22	11
27	18	9
28	11	5.5
29	13	6.5
30	5	2.5
31	7	3.5
32	3	1.5
33	5	2.5
35	4	2
36	4	2
37	3	1.5
38	4	2
39	4	2
40	1	.5
42	1	.5
43	7	3.5
45	3	1.5
46	2	1
47	4	2
48	2	1
50	1	.5
51	1	.5
52	2	1
54	5	2.5
55	2	1
56	1	.5
58	1	.5
60	1	.5
61	1	.5
62	1	.5
65	1	.5
Sex		
Female	148	74
Male	52	26
Marital Status		
Married or domestic partner-ship	52	26
Single	145	72.5
Widowed	3	1.5

The type of institution the respondents are affiliated with is displayed on Table 2 using frequency and percentages. Most of

the respondents are associated with Public Hospitals (67%) and Private Hospitals (26.5%).

Table.2. Type of Institution the respondents are currently affiliated with

Type	Frequency	Percentage
Private Hospital	53	26.5
Public Hospital	134	67
Diagnostics Industry	1	0.5
Distributor	1	0.5
Private HEI	3	1.5
Private Company	4	2
Reference Laboratory	1	0.5
National Government	3	1.5

Table 3 displays the names of the institutions the respondents are affiliated with using frequency and percentage. The majority of respondents came from AF-1 (14%), AF-6 (11%) and AF-48 (10%).

Table.3. Name of the Institution the respondents are currently affiliated with

Affiliation	Frequency	Percentage
AF-1	28	14
AF-2	5	2.5
AF-3	3	1.5
AF-4	2	1
AF-5	1	0.5
AF-6	22	11
AF-7	2	1
AF-8	1	0.5
AF-9	2	1
AF-10	3	1.5
AF-11	1	0.5
AF-12	1	0.5
AF-13	1	0.5
AF-14	12	6
AF-15	1	0.5
AF-16	1	0.5
AF-17	1	0.5
AF-18	1	0.5
AF-19	8	4
AF-20	1	0.5
AF-21	1	0.5
AF-22	1	0.5
AF-23	1	0.5
AF-24	7	3.5
AF-25	1	0.5
AF-26	1	0.5
AF-27	1	0.5
AF-28	1	0.5
AF-29	9	4.5
AF-30	1	0.5
AF-31	1	0.5
AF-32	2	1
AF-33	1	0.5
AF-34	7	3.5
AF-35	1	0.5
AF-36	1	0.5
AF-37	4	2
AF-38	1	0.5
AF-39	8	4
AF-40	4	2
AF-41	1	0.5
AF-42	7	3.5
AF-43	1	0.5
AF-44	1	0.5
AF-45	2	1
AF-46	1	0.5

AF-47	1	0.5
AF-48	20	10
AF-49	13	6.5
AF-50	1	0.5
-	1	0.5

Table 4 displays the duration of the time the respondents are employed as medical technologists using frequency and percentage. Majority of the respondents have worked as medical technologists for five years or more (57.5%), with 18 out of the 200 respondents having worked as medical technologists for five years (9%).

Table.4. Duration of employment as medical technologist

Duration	Frequency	Percentage
1 month	1	0.5
2 months	1	0.5
6 months	1	0.5
7 months	1	0.5
11 months	1	0.5
1 year	10	5
1 year 2 months	1	0.5
1 year 3 months	3	1.5
1 year 5 months	2	1
1 year 6 months	1	0.5
1 year 7 months	3	1.5
1 year 8 months	2	1
2 years	8	4
2 years 1 month	1	0.5
2 years 3 months	1	0.5
2 years 4 months	1	0.5
2 years 5 months	1	0.5
2 years 6 months	1	0.5
2 years 7 months	1	0.5
2 years 8 months	2	1
3 years	9	4.5
3 years 1 month	1	0.5
3 years 2 months	1	0.5
3 years 4 months	4	2
3 years 5 months	1	0.5
3 years 7 months	2	1
3 years 8 months	2	1
3 years 9 months	4	2
3 years 10 months	1	0.5
4 years	8	4
4 years 2 months	1	0.5
4 years 3 months	1	0.5
4 years 5 months	1	0.5
4 years 6 months	2	1
4 years 8 months	2	1
4 years 10 months	1	0.5
4 years 11 months	1	0.5
5 years	18	9
5 years 2 months	1	0.5
5 years 5 months	1	0.5
5 years 6 months	2	1
5 years 7 months	1	0.5
6 years	9	4.5
6 years 1 month	1	0.5
6 years 3 months	1	0.5
6 years 5 months	1	0.5
6 years 6 months	1	0.5
7 years	11	5.5
7 years 4 months	1	0.5
8 years	3	1.5
9 years	3	1.5
9 years 7 months	1	0.5

9 years 8 months	2	1
9 years 10 months	1	0.5
10 years	4	2
10 years 2 months	1	0.5
10 years 6 months	1	0.5
10 years 7 months	1	0.5
11 years 6 months	1	0.5
12 years	3	1.5
12 years 2 months	1	0.5
13 years	4	2
13 years 6 months	1	0.5
14 years 5 months	1	0.5
14 years 11 months	1	0.5
15 years	1	0.5
15 years 7 months	1	0.5
16 years	1	0.5
19 years	3	1.5
19 years 1 month	1	0.5
20 years	3	1.5
20 years 10 months	1	0.5
21 years	1	0.5
22 years	2	1
22 years 6 months	1	0.5
23 years	1	0.5
24 years	1	0.5
24 years 11 months	1	0.5
25 years	1	0.5
25 years 2 months	1	0.5
26 years	1	0.5
28 years	1	0.5
30 years	2	1
30 years 2 months	1	0.5
31 years	1	0.5
32 years 10 months	1	0.5
33 years	3	1.5
34 years	1	0.5
35 years	1	0.5
36 years 8 months	1	0.5
39 years 3 months	1	0.5
42 years 6 months	1	0.5
-	3	1.5

B. Knowledge

Table 5 displays nine out of the 15 iterations of the chi square and fisher's tests regarding the association of the knowledge on COVID-19 among medical technologists and their behavior towards COVID-19.

The nine tables represent the rest of the iterations which show that there is sufficient evidence to conclude that there is no statistically significant association between the knowledge on COVID-19 and behavior towards COVID-19 among medical technologists because all the p-values are greater than 0.05 for both the chi-square and fisher's exact test.

Table.5. Nine Iterations of the Chi-square and the Fisher's Tests on the Association of the Knowledge on COVID-19 among the Medical Technologists and their Behaviors towards COVID-19

	Pearson Chi-Square	Likelihood Ratio	Fisher's Exact Test	N of Valid Cases	
Exact sig. (2-sided)	1.00	1.00	1.00	200	3 cells (75.0%) have expected count less than 5. The minimum expected count is .01.
	1.00	1.00	1.00	200	3 cells (50%) have expected count less than 5. The minimum expected count is .06.
	1.00	1.00	1.00	200	18 cells (75.0%) have expected count less than 5. The minimum expected count is .01.
	.235	.235	.235	200	14 cells (70.0%) have expected count less than 5. The minimum expected count is .01.
	1.00	1.00	1.00	200	6 cells (75.0%) have expected count less than 5. The minimum expected count is .01.
	.470	.470	.470	200	38 cells (90.5%) have expected count less than 5. The minimum expected count is .01.
	.360	.360	.360	200	30 cells (78.9%) have expected count less than 5. The minimum expected count is .01.
	1.00	1.00	1.00	200	3 cells (75.0%) have expected count less than 5. The minimum expected count is .02.
	1.00	1.00	1.00	200	3 cells (75.0%) have expected count less than 5. The minimum expected count is .02.

C. Attitudes

Table 6 displays nine out of the 19 iterations of the chi square and fisher's tests regarding the association of the attitudes on COVID-19 among medical technologists and their behavior towards COVID-19. The nine tables represent the rest of the iterations which show that there is sufficient evidence to conclude that there is no statistically significant association between the attitudes on

COVID-19 and behavior towards COVID-19 among medical technologists because all the palues are greater than 0.05 for both the chi-square and fisher's exact test.

Table.6. Nine Iterations of the Chi-square and the Fisher's Tests on the Association of the Attitudes on COVID-19 among the Medical Technologists and their Behaviors towards COVID-19

	Pearson Chi-Square	**Likelihood Ratio**	**Fisher's Exact Test**	**N of Valid Cases**	
Exact sig. (2-sided)	1.00	1.00	1.00	200	2 cells (50.0%) have expected count less than 5. The minimum expected count is .11.
	1.00	1.00	1.00	200	3 cells (75.0%) have expected count less than 5. The minimum expected count is .02.
	1.00	1.00	1.00	200	2 cells (50.0%) have expected count less than 5. The minimum expected count is .06.
	1.00	1.00	1.00	200	3 cells (75.0%) have expected count less than 5. The minimum expected count is .01.
	1.00	1.00	1.00	200	3 cells (75.0%) have expected count less than 5. The minimum expected count is .01.
	1.00	1.00	1.00	200	3 cells (75.0%) have expected count less than 5. The minimum expected count is .01.
	1.00	1.00	1.00	200	2 cells (50.0%) have expected count less than 5. The minimum expected count is .50.
	.525	.525	.525	200	76 cells (84.4%) have expected count less than 5. The minimum expected count is .01.
	1.00	1.00	1.00	200	2 cells (50.0%) have expected count less than 5. The minimum expected count is .23.

D. Practices

Table 7 displays nine out of the nine iterations of the chi square and fisher's tests regarding the association of the practices on COVID-19 among medical technologists and their behavior towards COVID-19. The nine tables show that there is sufficient evidence to conclude that there is no statistically significant association between the practices on COVID-19 and their behavior towards COVID-19 among medical technologists because all the p-values are greater than 0.05 for both the chi-square and fisher's exact test.

Table.7. Nine Iterations of the Chi-square and the Fisher's Tests on the Association of the Practices on COVID-19 among the Medical Technologists and their Behaviors towards COVID-19

	Pearson Chi-Square	**Likelihood Ratio**	**Fisher's Exact Test**	**N of Valid Cases**	
Exact sig. (2-sided)	.655	.655	.655	.655	9 cells (64.3%) have expected count less than 5. The minimum expected count is .01.
	1.00	1.00	1.00	200	18 cells (64.3%) have expected count less than 5. The minimum expected count is .01.
	1.00	1.00	1.00	200	40 cells (83.3%) have expected count less than 5. The minimum expected count is .01.
	1.00	1.00	1.00	200	37 cells (92.5%) have expected count less than 5. The minimum expected count is .01.
	1.00	1.00	1.00	200	2 cells (50.0%) have expected count less than 5. The minimum expected count is .04.
	1.00	1.00	1.00	200	3 cells (75.0%) have expected count less than 5. The minimum expected count is .02.
	1.00	1.00	1.00	200	3 cells (75.0%) have expected count less than 5. The minimum expected count is .01.
	1.00	1.00	1.00	200	3 cells (75.0%) have expected count less than 5. The minimum expected count is .01.
	1.00	1.00	1.00	200	2 cells (50.0%) have expected count less than 5. The minimum expected count is .20.

IV. CONCLUSION

A. Summary of the Findings

The results of the study have shown that the Medical Technologists' knowledge and attitudes were not significantly correlated and did not influence their behavioral practices towards COVID-19. For a change in behavior to take place, a direct relationship among the knowledge, attitudes, and practices must first be established. Therefore, knowledge alone is not sufficient enough to cause a change in behavior. The Medical Technologists' attitudes also showed no significant correlation with their behaviors towards COVID-19. There is a need for consistency within the different factors that affect the attitudes of the Medical Technologists before it could be safely said that their attitudes affect their behaviors, however, when it comes to attitudes, people's reactions to a specific phenomenon or question are often inconsistent; thus, showing that attitudes do not warrant any effect towards their behaviors. The results also showed that the practices of the Medical Technologists did not display a significant correlation towards their behaviors. Several factors at play have presented to limit behavioral change, thus, preventing practices to display any effect towards behavior.

B. Conclusion

Medical Technologists are considered as one of the front liners who serve in the Covid-19 pandemic. Thus, it is vital that they are armed with the proper knowledge, attitudes, and practices to deal with Covid-19. There was no significant relationship, thus, the behaviors of the Medical Technologists were not affected by their knowledge, attitudes, and practices towards Covid-19.

The knowledge, attitudes, and practices of the Medical Technologists did not determine how they responded when faced with the possibility of contracting Covid-19 and experiencing its signs and symptoms. This study indicated that knowledge, attitudes, and practices alone were not a great indicator of behaviors. There were a lot of other factors that influenced their behavior such as their demographics (age or gender) or environment. These internal and external factors drove their behaviors and made an impact on how they dealt with Covid-19. As a result, there was a need to understand the different factors and find a way to address and improve them.

In addition to this, it is important to be up to date about the information regarding Covid-19 and be in constant communication because doing this will help in controlling the spread of the virus. Better education can also vastly improve the attitudes of the Medical Technologists and promote better practices and preventive behaviors. Along with this, efficient and effective hospital policies must 63 be made and implemented in order to improve the current environment and maintain the safety of everyone in the hospital.

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