



CONQUERING THE STORMY SEAS OF THE PANDEMIC: APPROPRIATENESS AND EFFECTIVENESS OF COVID-19 RESPONSE IN A MARITIME QUASI-MILITARY INSTITUTION

Victoria Q. Paraggua, Froilan D. Mobo, Ronalyn C. Acuavera, Leah R. Villavicencio,
Geraldine C. Pasa & Sheena Lee R. Atejera
Philippine Merchant Marine Academy

E-mails: vqparaggua@pmma.edu.ph fd.mobo@pmma.edu.ph rc.acuavera@pmma.edu.ph
lr.villavicencio@pmma.edu.ph gc.pasa@pmma.edu.ph slr.atejera@pmma.edu.ph

Abstract

The global health crisis brought about by the COVID-19 has disrupted and negatively affected even the education sector. Strict measures and plans to curb the spread of the virus were implemented nationwide, but a sudden surge of COVID-19 positive cases at Philippine Merchant Marine Academy was experienced. Thus, this research generally aimed to discover how PMMA fared in responding to the surge in terms of effectivity and appropriateness. This quantitative-descriptive research used a bilingual researcher-made survey questionnaire administered online and in person. Through the descriptive analysis of the data gathered, the study found out that the measures implemented (e.g., provision of PPEs and other related supplies, adequate meals during the entire stay of the respondents at the Academy, consultation with relevant personnel/units on actions to be taken, ensuring strict compliance with minimum health and safety protocols, restriction of mass gathering, proper spacing and ventilation of quarantine rooms, etc.), were generally highly appropriate and highly effective. Even so, some practices must be corrected to ensure safety of cadets and employees including strict implementation/compliance to health and safety protocols, guidelines on quarantine facilities, and allowing COVID-19 negative students to stay inside the Academy. Given these, to ensure resiliency to future and similar circumstances that may occur, it is recommended that cadets who were sent outside for important reasons must be quarantined when they return, a permanent emergency management team may be created, a work from home scheme will be implemented, and vaccination of all PMMA employees and cadets will be worked on.

Keywords: COVID-19, response, appropriateness, effectiveness, maritime quasi-military, Philippines



Conquering the Stormy Seas of the Pandemic: Appropriateness and Effectiveness of Covid-19 Response in a Maritime Quasi-Military Institution

Globally, as of 9 July 2021, there have been 185,291,530 confirmed cases of Coronavirus Disease 2019 (Covid-19), including 4,010,834 deaths, reported to World Health Organization. The spread of Covid-19 drastically affected the whole world, from the operations of big institutions, companies and establishments down to the customary activities of the small units of society – family. No one was spared from this dreaded and fatal culprit; everyone was affected.

In the Philippines, the Inter-Agency Task Force on Emerging Infectious Diseases (IATF-EID) that was created through Executive Order No. 168 in 2014 which was issued by the late former President Benigno Aquino III, was organized as government's instrument to assess, monitor, contain, control and prevent the spread of any potential epidemic in the country. IATF-EID released resolutions containing recommendations for the management of the Covid-19 situation, which include the prohibition of mass gatherings and strict implementation of physical distancing.

Even with the global health emergency which required for a declaration of enhanced community quarantine in Luzon, the Philippine Merchant Marine Academy (PMMA) opted to continue with its operation. Being a regimented higher education institution, cadets of the Academy are provided with meals, and are quartered at the PMMA dormitories for the entire period of their academic years, although under normal circumstances, they are allowed to go on short stay passes and end-of-term vacations, similar to other government academies, like the PMA and the PNPA. In the public advisory released by the academy on March 20, 2020, the academy stated that, the Administration, upon conducting risk assessment with the Department Heads, decided that it would be best to continue with their operations considering the distinct characteristic of PMMA.

The Commission on Higher Education (CHED) issued Advisory No. 7 on May 24, 2020 entitled Guidelines for the Prevention, Control and Mitigation of the Spread of Coronavirus Disease 2019 (Covid-19) in Higher Education Institutions (HEIs) for the HEIs to comply, in order to still continue providing the learners quality education aligned with their respective visions and missions. The commission also released CHED Memorandum Order (CMO) No.4 s.2020 with the title *Guidelines on the Implementation of Flexible Learning*, which aimed to provide learners with the most flexibility on the learning content, schedules, access and innovative assessment, making use of digital and non-digital tools during this time of pandemic.

In addition to the CHED guidelines and memorandums, PMMA still developed and implemented exclusive policies and regulations to prevent being tremendously affected by Covid-19. Following Proclamation No. 922 by the President of the Philippines declaring the State of Public Health Emergency, the Academy released Memorandum Circular Order (MCO) No. 16 S. 2020, on March 11, 2020, whereby several Academy Bicentennial celebration events were postponed until further notice. Upon the release of the news on the first case of Covid-19 in Zambales, PMMA issued MCO No. 20 S. 2020 on March 26, 2020, stating its intensified efforts



amidst the health crisis – which includes the implementation of skeletal workforce of frontline services, monitoring of travel history, and reminding everyone about personal hygiene measures and social/physical distancing. When Central Luzon, including Zambales, was placed in General Community Quarantine, the academy released MCO No. 30 S. 2020 Re: *Guidelines for Returning Employees and On-site Construction Workers for Ongoing Infrastructure Projects*, on May 28, 2020. It was thereby ordered that returning employees should secure health certificate that they are physically fit and free of signs and symptoms of Covid-19. They were also subjected to temperature check upon entry to the academy and afterwards, proceeded to the Medical Unit for medical examination using checklist of symptoms, and travel history. Like the returning employees, all construction workers also were required to secure health clearance, and were subjected to temperature check upon entry to the Academy and mandated to always wear face mask and face shield.

No matter how rigid the government operations of safety protocols are and how strict the exclusive regulations of the institutions, companies, and establishments are, being seriously affected by the challenges caused by the pandemic is indeed inevitable.

Despite the strictly implemented plans and measures, PMMA was still unfortunately and greatly disturbed by the highly infectious respiratory disease caused by the Corona virus. PMMA first experienced the difficulties caused by Covid -19 in August 27, 2020, when seven (7) incoming 3rd class midshipmen got infected by the virus. MCO No. 45 S. 2020 contains the order that certain areas within the Academy shall be off-limits to all unauthorized personnel. A drop-off table was also set-up for incoming documents to offices at each building to further prevent the spread of the virus. On March 19, 2021, one (1) of the employees in the academy was also tested positive for Covid-19, which was followed by five (5) more employee cases. Two months after, the academy was placed in critical state due to the surge of Covid-19 positive cases, wherein 309 cadets acquired the very harmful virus and tested positive for the disease. In response to this disturbing problem, PMMA developed and executed various actions (by each unit and department) to alleviate the problem.

PMMA Memorandum Circular Order No. 17 S. 2021 was released on May 24, 2021 implementing a granular lockdown, identifying the Department of Midshipmen Affairs (DMA) as the critical zone and off limits to all employees, faculty and personnel without official business. Also, there was an order that the academic buildings, Training Center, Safety Center and all other buildings are accessible to cadets only under strict supervision of responsible officers. Moreover, physical activities of cadets are authorized under strict supervision of DMA and in adherence to safety protocols.

Upon implementation of strategic containment on May 30, 2021, PMMA Memorandum Circular Order No. 19 S. 2021 was released with the order that all employees living outside the PMMA Complex will be on Work-from-Home (WFH) arrangement and shall not be allowed to come aboard PMMA throughout the duration of the 14-day quarantine period. Only essential personnel are to be allowed to go ashore PMMA under official business and shall be provided with Travel Authority signed by the Superintendent. Also, the employees living aboard PMMA shall not be allowed to go out of PMMA Complex except in emergency cases. Mobile *Palengke* for the food and other needs of the employees and dependents aboard PMMA shall be established inside PMMA. Delivery services for other needs shall also be encouraged but shall be limited access at



the main gate only. Alfano & Ercolano (2020) indicated in the results of their study that lockdown is effective in decreasing the number of new cases in the implementing countries compared to non-implementing ones.

Based on the PMMA Memorandum Circular Order No. 23 S. 2021, the administrative employees should maintain zero contact with cadets. The order also allowed only 50% work operations. Also, transactions and appointments were done online. indicated in the order that returning employees from outside Zambales shall be required Negative Rapid Antigen Test results before coming aboard with 72-hours validity and they shall be required to undergo Rapid Antigen Test while in PMMA and mandatory 14-day quarantine, regardless of the results of the Rapid Antigen Test. In addition, all communications and businesses shall be transacted via telephone or online platform and movement from office to office, if cannot be avoided, must be reduced to minimum.

The Office of Academics, Training, Research and Extension (ATRE), in cooperation with the Medical Unit, the Department of Midshipmen Affairs (DMA) and the two colleges - College of Marine Transportation (CMT) and College of Marine Engineering (CME), implemented different measures in relation to the education and training of the members of the Corps of Midshipmen, to safeguard the welfare of the students and staff in terms of their health and safety. Primarily, the implementation of the Learning Management System in PMMA, delivered by Seaversity, provided the cadets and the faculty with the flexibility on the learning content and facilitation during this time of pandemic. The cadets were also strictly ordered to always wear face shield and face mask. They were also provided with vitamins to improve their immune system. Handwashing facilities were also made available in the different areas in the academy.

Given all of these guidelines, the surge of Covid-19 positive cases in PMMA still transpired. This has fuelled the conduct of this research. Generally, this aims to (1) find out how PMMA fared in responding to the recent surge of Covid-19 in terms of effectivity and appropriateness; (2) identify actions that must be avoided; (3) document measures which were taken but were not recorded; and (4) improve response through recommended measures. It is the hope of this research to make PMMA resilient to imminent and similar incidents in the future. As Benjamin Franklin says, "By failing to prepare, you are preparing to fail".

Integrated Related Literature and Studies

Covid-19 is a continuing crisis; it brings immediate lesson in various aspects of a national government - equity, leadership, social justice, ethics, and patient care. (Dewart et. al., 2020). This pandemic will constantly modify the educational landscape; it already has. Covid- 19 is the greatest challenge that the national education systems have ever faced. Many institutions were ordered by the governments to cease face-to-face instruction for most of their students, requiring them to suddenly shift to online teaching and virtual education. (Daniel, 2020)

In their research, Huang & Liu, (2020) presented few issues in having online learning wherein not every student can access the internet and smart devices for their online learning, and academic integrity is really an unavoidable concern in online teaching and learning, especially during examinations and online submission of assignments and other student outputs, plagiarism



could also be a serious issue.

Jacob et al, (2020) cited Simon & Hans (2020) who observed that the closure of schools, colleges and universities not only interrupts the teaching for students around the world, it also coexisted with major examination period and many exams have been postponed or cancelled. Furthermore, they recommended that the government should increase the funding of higher education institutions in the next year's budget to allow them to manage all the damages caused by the Covid-19 school close down.

Academic staffs were also affected by the digital divide. Besides optimal broadband connection, an academic staff may require digital devices with enhanced capabilities to record lectures and administer learning and supervision sessions, either in synchronous or asynchronous modes. A basic home studio, for example, requires a webcam, microphones, appropriate lighting and audio modulation equipment. Round-the-clock technical support is also required for managing unforeseen glitches. Additionally, interactivity in online instruction requires the subscription of applications and online platforms, which may incur out-of-pocket expenses from the individual academic staff. (Azman & Abdullah, 2021)

The university professional respondents in the study conducted by Indira & Sonia (2020), expressed that considering the safety and security of students and faculty, efforts are being taken for smooth running of academic work and other operations of institutions during this pandemic. The biggest challenges faced by them are converting traditional education to e-learning, conducting practical courses and training. Also, they experienced difficulty in continuous planning and communications and developing the educational advancement with new educational solutions (like going online).

For universities and colleges to be digitally resilient, they should be well-adjusted and prepared to adopt new systems and processes, to ensure continued competitiveness and survival especially when either internal or external interventions force them to undergo certain disruptions. In other words, becoming digitally resilient involves the evaluation of (1) existing technologies in terms of their capabilities to meet the demand of educators and learners, and (2) new technologies in terms of their influence on their total resilience. Temporary solutions to mitigate the impact caused by the pandemic may not necessarily mean being more resilient because such temporary solutions may invite ineffective or inflexible procedures that affect educational institutions' capability to manage the push and pull forces brought about by the demand and supply of digitally enabled teaching learning capabilities and competencies. (Bhagat and Kim, 2020)

Azman & Abdullah (2021) found out that in managing teaching and learning amidst Covid-19 lockdown, it immediately became clear that the first priority for Malaysian HEIs was to take care of the basic needs of students who remained on campus. Cafeterias and on-campus sundry stores were shut, and students were not allowed to venture outside the campus for meals and supplies. Student affairs divisions went into full operation, providing these essential services to students on campus. Headcounts were done to ascertain the number of students requiring meal assistance, and businesses were quick to provide in-kind donations to HEIs. Students were also notified of important contacts in case of emergencies, and of the availability of health services, counselling services, and campus security services throughout the Movement Control Order (MCO) period. This is also what happened in the University of Taiwan. With proactive



containment efforts and comprehensive contact tracing, the number of Covid-19 cases in Taiwan remained low. The university had not recorded any domestic cases for 67 consecutive days, and there is no outbreak at present. (Cheng et al., 2020).

In addition to the above measures, healthcare systems must be established to the procurement and distribution of PPE and adequate training must be provided to professionals in its use. (Liu et al., 2020) When it comes to disinfecting rooms and buildings, hydrogen peroxide vapor and ultraviolet germicidal irradiation have been considered to decontaminate and allow the reuse of PPE (Zorko et al., 2020).

Moreover, the study of Indira & Sonia (2020) found out that the 73% of their respondents have a crisis management plan which was clearly understood that the majority of the institutions know the importance of crisis management. They started to implement their plans and view it as effective. In addition, their study revealed that the 85% of surveyed institutions had applied crisis management techniques or plans to act with the extent of the Covid- 19 pandemic.

Mina (2020) recommended that there must indeed be a response plan that must be adapted by the universities to resolve the concerns of the faculty and staff especially in decreasing the spread of the virus without affecting the daily transactions of the schools and colleges. McCormack et al. (2021) also recommended that it is essential for universities undergoing a rapid change period to be conscious of their ability to continuously monitor the quality of the learning design.

McCormack et al. (2021) cited Mukerjee (2014) affirming that agility is a strategy that when implemented effectively promises institutions not only survival but a way to thrive in a fast-changing situation. Organizational agility is the ability that is required from institutions to surpass stormy environments by providing the possibility to quickly and appropriately respond. Likewise, McCormack et al. (2021) also cited Worley & Jules, 2020 asserting that one of the key components of agility is the ability of institutions to respond to uncertainty; such is the case during Covid-19. To obtain organizational agility, the institution must have the ability to deal with unexpected changes and turbulence.

No organization can respond independently to the serious problems presented by the scope and scale of Covid-19. The pandemic goes beyond demographic, geographic, and organizational boundaries. (Nembhard et.al, 2020). Bruinen De Bruin et al., (2020) stressed that communication strategy on effective risk mitigation must be clearly and well coordinated using all possible channels, because this is vital in establishing trust with the people in a quickly evolving situation.

Governments around the world have employed highly operational public safety measures, including recommendations and other campaigns for improved hygiene practices, passing social distancing requirements and restricting public gatherings (Trung, 2019) Moreover, Wild et al., (2021) emphasized that wearing face masks and following safe social distancing are two of the enhanced safety protocols need to be followed in public places to avoid the spread of the virus.

Al Khateeb & Al Awadhi (2021) concluded their study with a set of recommendations as follows: the creation of a unified body under the supervision of the two Yemeni governments in Sana'a and Aden to manage Covid-19 crisis; strengthening awareness of protection; supporting medical services; providing the staff of the Ministry of Higher Education with health insurance;

building technological capacity of universities to overcome technology illiteracy; and developing e-learning.

Over-all, Covid-19 disruptions around the world allowed countries and organizations to adapt through different guidelines and interventions. This situation has to be faced with caution, especially that different variants are emerging. It is important that every institution becomes dynamic in addressing it. In the end, nothing beats readiness and careful planning.

Theoretical Framework

The theoretical framework of this study is developed in the light of social adaptation approach. This approach is widely used in the field of sociology and generally in other social sciences. The sociological approach of social adaptation focused on the adaptation of human behavior in the social environment. The main prominent proponents of this approach in the field of sociology are Merton, Parson, Weber, and Durkheim.

Moreover, social action is linked with social adaptation (Fritz & Ringer, 2009). Individuals perform actions in the social world considering others, therefore, individuals practice social distancing and isolation to reduce the risk of a pandemic outbreak. As per the description of Durkheim, social adaptation of individuals is linked with the existing normative structure of the society (Scambler, 2009). Similarly, individuals adopt dominant awareness of his duty to society and public morality as well. Also, the adaptation is functionally the result of existing norms at a broader level (Misztal, 2013). Here, the main point of adaptation is from a broader institutional level such as society and institution. Thus, social distance and isolation are defined to reduce the risk of Covid-19 in society and individuals follow to reduce the risk of infection that results in solidarity and integration among individuals. Thus, this study attempts to analyze the adaptation of factors and procedures implemented as response to the surge of Covid-19 positive cases in Philippine Merchant Marine Academy. Hence, the following theoretical framework is developed.

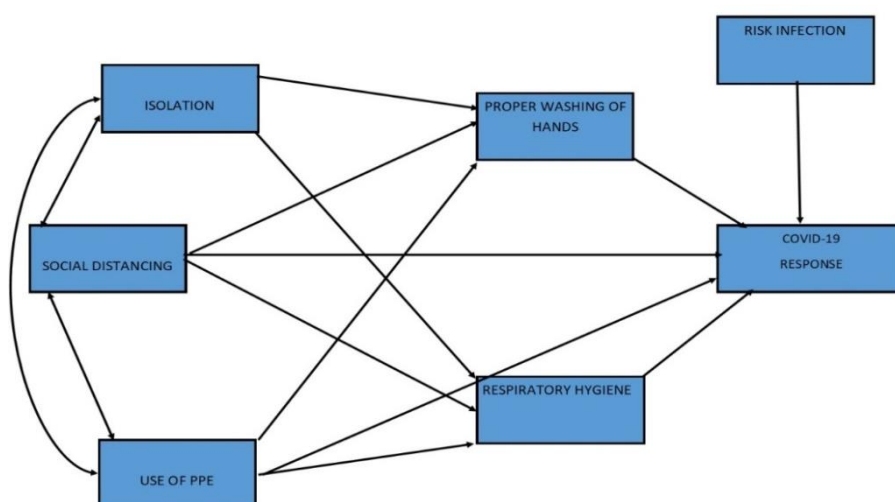


Figure 1
Theoretical Framework based on Social Adaptation Approach

Figure 1 shows that the the chances of Risk Infection towards Covid-19 can be reduced. Wearing of Personal Protective Equipment (PPE) and practicing various personal hygiene measures are more likely to retain the safety of the people and reduce the risk of getting infected. Social distancing is also another important component of risk reduction and hence, maintaining the social distance reduces the chances of being infected.

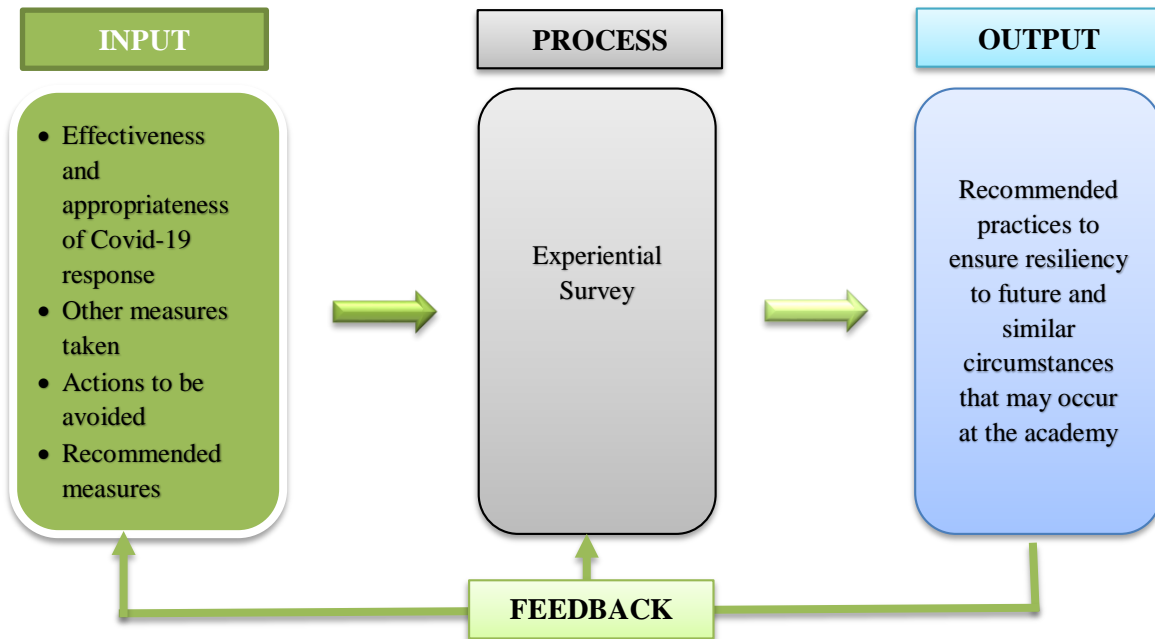


Figure 2
Research Paradigm

Relative to the Social Adaptation Theory, this research followed the input-process-output to assess how the PMMA adapted and responded to the Covid-19.

Figure 2 illustrates that through the utilization of an experiential survey, this research intended to gather data to determine the effectiveness and appropriateness of Covid-19 response of PMMA, other measures taken, actions to be avoided and recommended measures. The analysis of the data gathered would yield recommended practices to ensure resiliency to future and similar circumstances that may occur at the academy.

Statement of the Problem

This study focused on the appropriateness and effectiveness of Covid-19 response of the Philippine Merchant Marine Academy to conquer the surge of the virus inside the academy.

Specifically, the study sought to answer the following questions:

1. What is the level of appropriateness and effectiveness of the measures conducted by PMMA to address the surge of Covid-19 positive cases, as perceived by:
 - a. Different concerned offices
 - b. Corps of midshipmen/women?



2. What practices must be corrected or avoided to ensure safety of cadets and employees?
3. What other measures or actions are implemented by PMMA to mitigate the Covid-19 cases?
4. What are the recommended practices to ensure resiliency to future and similar circumstances that may occur at the academy?

Definition of Terms

Covid-19. 'CO' stands for corona, 'VI' for virus, and 'D' for disease. It is an infectious disease that causes acute respiratory illness in humans, especially in older people and those with underlying health conditions.

Disinfection. A process of using disinfectant (a cleaning agent), to completely eliminate harmful bacteria and viruses from inanimate objects and surfaces.

Immunization. A process of stimulating the immune system and by which a person becomes protected against a disease through vaccination.

Infection. The invasion and multiplication of microorganisms such as bacteria and viruses into the body and that can cause fever and other serious health problems.

Intervention. It is an act of taking action and involve in a particular issue with the intent of modifying the outcome.

Isolation. A state of separating sick people with contagious disease from other people who are not sick.

Pandemic. The outbreak of an infectious disease, prevalent to multiple countries or continents, and generally affects a significant proportion of the population.

Quarantine. The restriction of the movement of people who were exposed to a contagious disease to see if they are not sick and in order to prevent the spread and transmission of disease.

Rapid Antigen Test (RAT). This test is used to detect the presence of antigen and reveals patients at the peak of infection.

RT-PCR Test. This test is used to detect the presence of RNA (or genetic material) that is specific to virus and can detect the virus within days of infection, even those who have no symptoms.

Sanitizing. The process of reducing the occurrence and growth of bacteria and viruses through cleaning and disinfection.

Social distancing. The physical distance maintained in social context and avoiding direct



contact between individuals to slow the spread of an infectious disease.

Swab Test. It is a way to obtain examination material (sample) done on the nasopharynx the upper part of the pharynx, connecting with the nasal cavity above the soft palate) and/or oropharynx (The part of the throat at the back of the mouth behind the oral cavity) using a tool such as a special cotton swab.

Vaccine. A biological substance used into the body to help the immune system develop protection, thereby preventing disease.

Method

Research Design

The study used a quantitative-descriptive research design to assess the effectiveness and appropriateness of the response, measures and policies of the PMMA. According to www.questionpro.com, this is a research design that describes the characteristics of the population or phenomenon studied. This methodology focuses more on the “what” of the research subject than the “why” of the research subject. It primarily focuses on describing the nature of a demographic segment, without focusing on “why” a particular phenomenon occurs. In other words, it “describes” the subject of the research, without covering “why” it happens.

The variables of the study are as follows: (a) measures undertaken by the academy, and (b) appropriateness and effectiveness of measures undertaken by the academy.

Respondents

The respondents of the study are the cadets/cadettes and the employees in the Academy. A total of 436 cadets/cadettes participated in the study. Furthermore, a total of 43 employees responded through online survey while a total of 51 employees responded through the printed survey form.

Convenience Sampling was used. This method is done by collecting research data from a conveniently available pool of respondents. It is the most commonly used sampling technique as it is incredibly prompt, uncomplicated, and economical. In many cases, members are readily approachable to be a part of the sample (www.questionpro.com).

Ethical Considerations

In addition to the importance of selecting an appropriate research methodology, the importance of the ethical considerations around conducting the research is also reflected in this study. Highest ethical standards were observed by requesting permissions and authorization from concerned heads/administrators to conduct the survey. A formal letter and email was sent to the Department of Midshipmen Affairs in relation to Cadets/Cadettes respondents and the Data Protection Officer was also informed about the survey being conducted.



All information collected in this study is for research purposes only and the respondents' information were kept with the utmost confidentiality. The authors of all the literatures, studies and references used in this study were properly cited and acknowledged in the references.

Instrument

The instrument used is a survey questionnaire, with different parts and categories. It includes (1) the department where the employee respondent belongs, (2) Sex and; (3) Case status of Covid-19 wherein the cadet respondent identified if he/she is positive, negative or suspected to have the disease.

The survey is in bilingual form using English and *Tagalog* Language. Respondents including the Executive Committee, Department of Midshipmen Affairs, Unit/Department Heads, Faculty Members, Medical Unit, Stay-in Finance Department, Dormitory Unit, and Cadets/Cadettes were invited to complete the online questionnaire through google form while the other respondents such as the GRMU, Janitorial, Mess and Security Unit were requested to complete the printed survey questionnaire in *Tagalog* language.

The last part covered the respondent's feedback on (1) practices that must be avoided or corrected to ensure safety of cadets and employees and (2) other measures the respondents recommend to prevent infection and immediate spread of the virus at PMMA.

The survey questionnaire used three-point Likert Scale to identify the appropriateness and effectiveness of the measures undertaken with regards to the surge of Covid-19 positive cases inside the Academy. The appropriateness of these measures was rated from (1) not appropriate, (2) slightly appropriate and (3) highly appropriate. On the other hand, the effectiveness of the measures undertaken was also rated from (1) not effective, (2) slightly effective, and (3) highly effective. The frequency of the conduct of the measures were also counted.

Procedure

Due to the unexpected circumstances of the Covid-19 pandemic, in particular, the restriction of movement and the need for social distance, the data collection for this study had to be conducted via the online survey platform (google.doc) and through hard copies. The distribution of the printed survey instrument was requested to be done by an employee staying inside the academy, while adhering to the guidelines and following the protocols set by the academy.

The following procedures were followed in the collection of data.

- a. The survey instrument was created in Google Form.
- b. The instrument was reviewed and approved by the Assistant Superintendent for ATRE.
- c. The survey instrument in Google Form was sent to respective emails and Facebook messenger of the target respondents.
- d. The printed survey instrument is distributed to Mess, Security and Janitorial Unit following strict protocols
- e. The collected data was processed and analyzed using Tables and Microsoft Excel. The Mean and Mode were also identified. And the range was computed to establish the



range and provide the equivalent descriptive assessment.

	Appropriateness	Effectiveness
1 - 1.67	Not Appropriate	Not Effective
1.68 - 2.34	Slightly Appropriate	Slightly Effective
2.35 - 3.00	Highly Appropriate	Highly Effective

Results and Discussion

In this chapter, the results of the study, using the quantitative-descriptive research design, are presented and discussed in reference to the aims of the study: to find out how PMMA fared in responding to the recent surge of Covid-19 in terms of effectivity and appropriateness; identify actions that must be avoided; document measures which were taken but were not recorded; and improve response through recommended measures. Through the descriptive analysis of the data gathered, the study found out the following findings.

Profile of Respondents

Table 1
Profile of the Respondents

	Male	Female	TOTAL
Executive Committee	1	1	2
Department/Unit Heads	6	4	10
Faculty Members	4	6	10
Dept of Midshipmen Affairs	7	2	9
Medical Unit	2	2	4
Dormitory Unit	2	0	2
Stay-in Finance Dept/ Admissions Office Staff	0	6	6
Mess Staff	15	3	18
Security Staff	24	0	24
Janitorial Staff	9	0	9
Corps of Midshipmen			
Positive	187	12	199
Non-COVID/Negative	196	21	217
Suspected Case	19	1	20
TOTAL	472	58	530

As shown in Table 1, the study has a total of five hundred thirty (530) respondents composed of employees and students. Majority of the respondents are cadets/cadets (436 out of 530 or 82.26%) and are male (472 or 89.06%).



Level of Appropriateness and Effectiveness of Measures Taken

Table 2

Level of Appropriateness and Effectiveness of Measures Taken from Executive Committee

COVID-19 MEASURE	FREQUENCY		APPROPRIATENESS		EFFECTIVENESS		REMARKS
			MEAN	QI	MEAN	QI	
A1. Consultation with Department/Unit Heads and other concerned personnel on action plan to be taken.	Weekly	2	3.00	Highly Appropriate	3.00	Highly Effective	
A2. Conducted regular ExeCom meeting (Supt, AS-ATRE, AS-AF, Planning Director, and Acting QMR) to discuss updates on implementation of Covid-19 measures.	As need arises	1	2.50	Highly Appropriate	3.00	Highly Effective	
	Weekly	1					
A3. Risk assessments are revised and updated to ensure appropriate safety measures are implemented.	Sometimes	2	3.00	Highly Appropriate	3.00	Highly Effective	
A4. Tasked someone to coordinate with San Narciso IATF, RHU, and Provincial Health Office regarding the situation.	Always	2	3.00	Highly Appropriate	3.00	Highly Effective	C/E Salmon and Capt Ladica
A5. Timely issuance of memorandum circular stipulating guidelines on the strategic containment.	As need arises	1	3.00	Highly Appropriate	3.00	Highly Effective	
	Sometimes	1					
A6. Established flexible work from home and skeleton work arrangement.	Always	2	3.00	Highly Appropriate	3.00	Highly Effective	
A7. Provided timely and accurate information to employees and cadets/ cadettes especially to Covid19 positive to reduce uncertainty and distress.	As need arises	1	3.00	Highly Appropriate	3.00	Highly Effective	
	Weekly	1					
A8. Advised on the procurement of immediate needs/supplies (foods, medical, etc.) in sufficient quantity and quality.	Always	2	3.00	Highly Appropriate	3.00	Highly Effective	
Other measures: Additional designated berthing area; reduce of CDO and OOD to lessen possible exposure; use of electronic platform to do transactions/ appointments.	Daily	1	3.00	Highly Appropriate	3.00	Highly Effective	



Members of the Executive Committee have responded, as presented in Table 2, that they consulted with Department/Unit Heads and other concerned personnel weekly in relation to the action plan to be taken with the sudden surge of Covid-19 cases in the Academy. Further, both have jointly stated that risk assessments were revised and updated to ensure appropriate safety measures are implemented sometimes, always established flexible work from home and skeleton work arrangement, and always advised on the procurement of immediate needs/supplies (e.g., food, medicine, etc.) in sufficient quantity and quality. One member also noted that other measures conducted were: additional designated berthing area, reduction of CDO and OOD to lessen possible exposure, and use of electronic platform to do transactions/appointments.

No organization can respond independently to the serious problems presented by the scope and scale of Covid-19. The pandemic goes beyond demographic, geographic, and organizational boundaries. (Nembhard et.al, 2020). The Academy coordinated with San Narciso IATF, RHU, and Provincial Health Office regarding the situation. All measures implemented were highly appropriate and highly effective according to the ExeCom members with all measures garnering a mean of 3.00 except conduct of regular ExeCom meeting (Supt, AS-ATRE, AS-AF, Planning Director, and Acting QMR) to discuss updates on implementation of COVID-19 measures which has a mean of 2.50 in the appropriateness. The high level of appropriateness and effectiveness of the measures conducted by the members of the executive committee is a product of their great efforts in combatting the disease. This is also what happened in the University of Taiwan. With proactive containment efforts and comprehensive contact tracing, the number of Covid-19 cases in Taiwan remained low: The University in Taiwan had not recorded any domestic cases for 67 consecutive days, and there is no outbreak at present. (Cheng et al., 2020)

Table 3
Level of Appropriateness and Effectiveness of Measures Taken from Department/Unit Heads

COVID-19 MEASURE	FREQUENCY		APPROPRIATENESS		EFFECTIVENESS		REMARKS
			MEAN	QI	MEAN	QI	
B1. Was consulted on the action plan to be taken.	Always	2	2.80	Highly Appropriate	2.70	Highly Effective	
	As need arises	4					
	Never	4					
B2. Conducted meeting, which department/unit heads were included, discussed updates on the implementation of COVID-19 measures.	As need arises	4	2.50	Highly Appropriate	2.50	Highly Effective	
	Weekly	2					
	Once	1					
	Never	2					
	Do not know	1					
B3. Coordinated with concerned personnel/other departments on matters related to implementation of strategic containment guidelines.	Always	3	2.70	Highly Appropriate	2.80	Highly Effective	
	Sometimes	1					
	As need arises	2					
	Never	4					
B4. Provided with real-time and accurate information.	Weekly	3	2.50	Highly Appropriate	2.60	Highly Effective	
	As need arises	4					
	Never	2					



B5. Continuous service delivery and production of output of your respective offices.	Daily	6	2.90	Highly Appropriate	2.80	Highly Effective	
	Weekly	4					
B6. Other measures implemented, please specify							
a. Notify concerned individual	As need arises	1	3.00	Highly Appropriate	3.00	Highly Effective	
b. Skeletal workforce	Daily	1	3.00	Highly Appropriate	3.00	Highly Effective	

Department/Unit Head respondents have differing responses in all of the measures indicated in the survey. Nevertheless, as shown in Table 3, majority have stated that they have conducted meeting, which department/unit heads were included, discussed updates on the implementation of Covid-19 measures as need arises, never coordinated with other concerned personnel/other departments on matters related to implementation of strategic containment guidelines, provided with real-time and accurate information as need arises, continuous service delivery and production of output of their respective offices daily. For other notable measures, one respondent stated that the concerned individual was notified as need arises and skeletal workforce was implemented daily. All of the measures were deemed highly appropriate and highly effective with the continuous service delivery and production of output having the highest mean in appropriateness with 2.90 while same measure and coordination with concerned personnel/other departments tied in highest effectivity rating of 2.80.

Table 4
Level of Appropriateness and Effectiveness of Measures Taken from Faculty Members

COVID-19 MEASURE	FREQUENCY		APPROPRIATENESS		EFFECTIVENESS		REMARKS
			MEAN	QI	MEAN	QI	
C1. Was consulted on the action plan to be taken.	Always	2	2.30	Slightly Appropriate	2.20	Slightly Effective	
	Sometimes	3					
	As need arises	2					
	Never	3					
C2. Received regular updates from the college deans regarding the situation	Daily	3	2.40	Highly Appropriate	2.40	Highly Effective	
	As need arises	5					
	Never	2					
C3. Clear instructions were given for the continuation of classes/exams.	Always	6	2.40	Highly Appropriate	2.40	Highly Effective	
	Sometimes	4					
C4. There was special instruction to exempt cadets/cadettes found Covid19 positive.	Weekly	1	2.30	Slightly Appropriate	2.30	Slightly Effective	
	As need arises	5					
	Never	4					



C5. Existence of a program meant to address the delay of learning, if there was special instruction to exempt cadets/cadettes found Covid19 positive.	Weekly	2	2.20	Slightly Appropriate	2.20	Slightly Effective	
	As need arises	4					
	Never	4					
C6. Other measures implemented, please specify							
a. Covid-19 RT-PCR/Swab test	As need arises	1	2.00	Slightly Appropriate	2.00	Slightly Effective	

As presented in Table 4, faculty members also have differing responses on the frequency of the conduct of the measures enumerated. On the other hand, majority have responded that they were sometimes consulted on the action plan to be taken, received regular updates from the college deans regarding the situation as need arises, always given clear instructions for the continuation of classes/exams, while either as need arises or never given a special instruction to exempt cadets/cadettes found Covid-19 positive including a program to address the delay of learning.

Only one measure: received regular updates from college deans was deemed highly appropriate with a mean of 2.40 while the rest were regarded as slightly appropriate with “Existence of a program meant to address the delay of learning, if there was special instruction to exempt cadets/cadettes found Covid19 positive” having the lowest mean of 2.20.

In terms of effectiveness, both the receipt of regular updates and giving of clear instructions were seen as highly effective with a mean of 2.40. The remaining measures were rated as slightly effective.

Mina (2020) recommended that there must indeed be a response plan that must be adapted by the universities to resolve the concerns of the faculty and staff especially in reducing the spread of the virus without sacrificing the day-to-day transactions of the academic institutions.

Table 5
*Level of Appropriateness and Effectiveness of Measures Taken from
Department of Midshipmen Affairs*

COVID-19 MEASURE	FREQUENCY		APPROPRIATENESS		EFFECTIVENESS		REMARKS
			MEAN	QI	MEAN	QI	
D1. Was consulted on the action plan to be taken.	Daily	3	2.33	Slightly Appropriate	2.33	Slightly Effective	
	Weekly	1					
	As need arises	5					
D2. Ensured strict compliance with minimum health and safety protocols such as wearing of face mask and proper and frequent handwashing at the CADETS' QUARTERS.	Daily	8	2.44	Highly Appropriate	2.33	Slightly Effective	
	As need arises	1					



D3. Ensured strict compliance with minimum health and safety protocols such as wearing a face mask and proper and frequent handwashing at the QUARTERDECK AREA.	Always	6	2.33	Slightly Appropriate	2.33	Slightly Effective	
	Sometimes	3					
D4. Checked and ensured the number of patients in each room in the quarantine area is enough to adhere to physical distancing rules.	Daily	4	2.56	Highly Appropriate	2.44	Highly Effective	
	Weekly	1					
	As need arises	4					
D5. Restricted MASS GATHERINGS of cadets through suspension of: a) formation at the parade grounds	Full duration of lockdown	7	2.44	Highly Appropriate	2.44	Highly Effective	
	Only for Covid-19 positive	1					
	Never	1					
D5(b). Restricted MASS GATHERINGS of cadets through suspension of: b) dining at the Mess Hall	Full duration of lockdown	9	2.78	Highly Appropriate	2.78	Highly Effective	
D5(c). Restricted MASS GATHERINGS of cadets through suspension of: c) daily routines such as calisthenics	Full duration of lockdown	7	2.67	Highly Appropriate	2.67	Highly Effective	
	Only for Covid-19 positive	2					
D5(d). Restricted MASS GATHERINGS of cadets through suspension of: d) morning, noon, and evening muster	Full duration of lockdown	7	2.67	Highly Appropriate	2.56	Highly Effective	
	Only for Covid-19 positive	2					
D5(e). Restricted MASS GATHERINGS of cadets through suspension of: e) morning and evening colors	Full duration of lockdown	8	2.67	Highly Appropriate	2.56	Highly Effective	
	Only for COVID-19 positive	1					
D6. Implemented shifting schedule of mess of cadets to avoid mass gathering and spread of virus.	Full duration of lockdown	7	2.67	Highly Appropriate	2.67	Highly Effective	
	Only for COVID-19 positive	1					
	Never	1					



D7. Cadets were not allowed to go ashore regardless of purpose.	Full duration of lockdown	7	2.33	Slightly Appropriate	2.33	Slightly Effective	
	Only for COVID-19 positive	2					
D8. Conducted disinfection of cadets quarters regularly	Daily	4	2.44	Highly Appropriate	2.44	Highly Effective	
	Weekly	3					
	As need arises	2					
D9. Other measures implemented, please specify							
a. Limited face to face between midshipmen/ women and Tactical Officers	Daily	1	3.00	Highly Appropriate	3.00	Highly Effective	
b. Segregation of infected cadets from the healthy ones	Daily	1	3.00	Highly Appropriate	3.00	Highly Effective	

Table 5 illustrates that for the Department of Midshipmen Affairs, only one (1) measure gained a unanimous response: restriction of mass gathering of cadets through suspension of dining at the Mess Hall for the full duration of the lockdown. On the other hand, majority of the respondents stated that they were consulted on the action plan to be taken as need arises; ensured strict compliance with minimum health and safety protocols such as wearing of face mask and proper and frequent handwashing at the CADETS' QUARTERS daily, always ensured strict compliance with minimum health and safety protocols such as wearing a face mask and proper and frequent handwashing at the QUARTERDECK AREA, checked and ensured the number of patients in each room in the quarantine area is enough to adhere to physical distancing rules daily/as need arises, restricted mass gathering of cadets through suspension of formation at the parade grounds, suspension of daily routines such as calisthenics, suspension of morning, noon, and evening muster, and suspension of morning and evening colors for the full duration of lockdown, implemented shifting schedule of mess of cadets to avoid mass gathering and spread of virus for the full duration of lockdown, and conducted daily disinfection of cadets quarters. Other notable measures included limited face to face between midshipmen/women and Tactical Officers and segregation of infected cadets from the healthy ones which were conducted daily.

In terms of appropriateness and effectiveness, restriction of mass gathering through suspension of dining at the mess hall has the highest rating of 2.78 or highly appropriate and highly effective while three (3) measures got the lowest rating of 2.33 or slightly appropriate: consultation on the action plan to be taken, ensured strict compliance with minimum health and safety protocols such as wearing of face mask and proper and frequent handwashing at the Quarterdeck Area, and not allowing cadets to go ashore regardless of purpose. Alfano & Ercolano (2020) indicated in the results of their study that lockdown is effective in decreasing the number of new cases in the implementing countries compared to those non-implementing ones. This is indeed effective around 10 days after the implementation and its efficacy continues to grow up to 20 days after.

Accordingly, the measures who got the lowest rating in appropriateness also got the lowest in effectiveness with the addition of ensured strict compliance with minimum health and safety protocols such as wearing of face mask and proper and frequent handwashing at the Cadets'



Quarters which all got a rating of 2.33 or slightly effective.

Table 6

Level of Appropriateness and Effectiveness of Measures Taken from the Medical Unit

COVID-19 MEASURE	FREQUENCY		APPROPRIATENESS		EFFECTIVENESS		REMARKS
			MEAN	QI	MEAN	QI	
E1. Was consulted on the action plan to be taken.	Always	2	2.75	Highly Appropriate	2.75	Highly Effective	
	Sometimes	1					
	As need arises	1					
E2. Ensured strict compliance with minimum health and safety protocols such as wearing a face mask and proper and frequent handwashing.	Always	3	3.00	Highly Appropriate	3.00	Highly Effective	
	Sometimes	1					
E3. Checked and ensured the number of patients in each room in the quarantine area is enough to adhere to physical distancing rules.	Sometimes	4	2.25	Slightly Appropriate	2.25	Slightly Effective	
E4. Coordinated with the Rural Health Unit and Provincial Health Office for conduct of Rapid Antigen Test and RT-PCR Test for suspected cases and close contacts.	Always	3	3.00	Highly Appropriate	2.50	Highly Effective	
	As need arises	1					
E5. Ensured availability of medicines and other medical supplies for cadets/employees who have symptoms.	Always	4	3.00	Highly Appropriate	2.75	Highly Effective	
E6. Coordinated with authorities if medicines and medical supplies are depleting to ensure steady supply	Always	3	3.00	Highly Appropriate	2.75	Highly Effective	
	As need arises	1					
E7. Monitored the number of Covid-19 positive cases	Daily	3	2.50	Highly Appropriate	2.50	Highly Effective	
	As need arises	1					
E8. Regularly monitored the health situation of Covid-19 positive cases	Daily	4	2.75	Highly Appropriate	2.75	Highly Effective	
E9. Coordinated regular clean-up and disinfection	Daily	3	3.00	Highly Appropriate	3.00	Highly Effective	
	Weekly	1					



E10. Introduced measures for avoiding crowding and social mixing and encouraged employees and students to observe safe physical distancing	Always	4	3.00	Highly Appropriate	2.75	Highly Effective	
E11. Used medical masks and other PPE according to tasks and applied standard precautions in providing patient care.	Always	4	3.00	Highly Appropriate	3.00	Highly Effective	
E12. Provided face masks and face shields to cadets for free	Daily	1	2.75	Highly Appropriate	2.75	Highly Effective	
	Weekly	1					
	As need arises	2					
E13. Conducted regular disinfection of sick bay and quarantine areas	Daily	3	3.00	Highly Appropriate	3.00	Highly Effective	
	Weekly	1					
E14. Organized swab testing for employees and cadets	As need arises	3	3.00	Highly Appropriate	2.50	Highly Effective	
	As scheduled by RHU/ provincial hospital	1					
E15. Proper and easy coordination with Transportation Unit, DMA, OOS, OAS-AF, OAS-ATRE, and other concerned units/offices regarding measures to be implemented	Always	2	2.75	Highly Appropriate	2.50	Highly Effective	
	Sometimes	2					
E16. Other measures implemented, please specify	None						

As seen in Table 6, five (5) measures were answered consistently by the Medical Unit Staff: checked and ensured the number of patients in each room in the quarantine area is enough to adhere to physical distancing rules sometimes, always ensured availability of medicines and other medical supplies for cadets/employees who have symptoms, daily monitored the health situation of Covid-19 positive cases, always introduced measures for avoiding crowding and social mixing and encouraged employees and students to observe safe physical distancing, and always used medical masks and other PPE according to tasks and applied standard precautions in providing patient care.

Accordingly, nine (9) measures got a perfect rating of 3.00 in terms of appropriateness: ensured strict compliance with minimum health and safety protocols such as wearing a face mask and proper and frequent handwashing, coordinated with the Rural Health Unit and Provincial Health Office for conduct of Rapid Antigen Test and RT-PCR Test for suspected cases and close contacts, ensured availability of medicines and other medical supplies for cadets/employees who have symptoms, coordinated with authorities if medicines and medical supplies are depleting to



ensure steady supply, coordinated regular clean-up and disinfection, used medical masks and other PPE according to tasks and applied standard precautions in providing patient care, conducted regular disinfection of sick bay and quarantine areas, and organized swab testing for employees and cadets.

On the other hand, only four (4) measures got a full 3.00 rating for effectiveness such as: ensured strict compliance with minimum health and safety protocols such as wearing a face mask and proper and frequent handwashing, coordinated regular clean-up and disinfection, used medical masks and other PPE according to tasks and applied standard precautions in providing patient care, conducted regular disinfection of sick bay and quarantine areas.

Conversely, the checking and ensuring the number of patients in each room to ensure physical distancing got the lowest rating of 2.25 for both aspects which implies that it is slightly appropriate and slightly effective. In addition to the above measures, healthcare systems must be established to the procurement and distribution of PPE and adequate training must be provided to professionals in its use. (Liu et al., 2020)

Table 7

Level of Appropriateness and Effectiveness of Measures Taken from the Dormitory Unit

COVID-19 MEASURE	FREQUENCY		APPROPRIATENESS		EFFECTIVENESS		REMARKS
			MEAN	QI	MEAN	QI	
G1. Ensured sufficient supply of beddings (i.e., foam, bedsheets, pillows) for the quarantine facilities	Weekly	1	3.00	Highly Appropriate	2.50	Highly Effective	
	Should be prepared by Medical, Dorm shall only assist	1					
G2. Provided beddings for employees staying aboard	As need arises	2	2.50	Highly Appropriate	2.50	Highly Effective	
G3. Ensured strict compliance with minimum health and safety protocols such as wearing of face mask and proper and frequent handwashing during change of beddings.	Always	2	3.00	Highly Appropriate	3.00	Highly Effective	
G4. Washed and disinfected beddings.	Weekly	1	3.00	Highly Appropriate	3.00	Highly Effective	
	Every 2 weeks	1					
G5. Other notable measure implemented, please specify							
a. Purchased sprayer and alcohol for regular disinfection	As need arises	1	3.00	Highly Appropriate	3.00	Highly Effective	

In terms of measures implemented by the Dormitory Unit, Table 7 presents that they have provided beddings for employees staying aboard as need arises and always ensured strict compliance with minimum health and safety protocols such as wearing of face mask and proper and frequent handwashing during change of beddings. All measures were rated as 3.00 for



appropriateness except provision of beddings for employees staying aboard. Consequently, ensured sufficient supply of beddings (i.e., foam, bedsheets, pillows) for the quarantine facilities and sufficient supply of beddings (i.e., foam, bedsheets, pillows) for the quarantine facilities both got the lowest effectiveness rating of 2.50.

Table 8

Level of Appropriateness and Effectiveness of Measures Taken from the Stay-in Finance Department/Admissions Office Staff

COVID-19 MEASURE	FREQUENCY		APPROPRIATENESS		EFFECTIVENESS		REMARKS
			MEAN	QI	MEAN	QI	
F1. Ensured strict compliance with minimum health and safety protocols such as wearing of face mask and proper and frequent handwashing	Always	6	2.83	Highly Appropriate	2.67	Highly Effective	
F2. Employees were provided with adequate food/meals during their entire stay inside the Academy	Daily	5	2.67	Highly Appropriate	2.67	Highly Effective	
	As need arises	1					
F3. The meals provided were varied and nutritious to maintain employees' health	Always	3	2.5	Highly Appropriate	2.5	Highly Effective	
	Sometimes	3					
F4. Employees were provided with beddings and other supplies	As need arises	5	2.67	Highly Appropriate	2.33	Highly Effective	
	Once only for beddings	1					
F5. Sleeping arrangements were established	Yes	4	1.83	Slightly Appropriate	1.83	Slightly Effective	
	No	2					
F6. Smooth implementation of Mobile Palengke and Pasabuy	Always	1	2.67	Highly Appropriate	2.5	Highly Effective	
	Sometimes	5					
F7. Sleeping quarters is large enough to ensure social/physical distancing	Yes	5	2.5	Highly Appropriate	2.33	Slightly Effective	
	No	1					
F8. In case of other needs, it was easy to convey to PMMA management.	Always	1	2.5	Highly Appropriate	2.5	Highly Effective	Danna P., Dwight E.
	Sometimes	5					
F9. Other notable measure implemented, please specify	None						

For employees from Finance Department and Admissions Office who were required to stay aboard, as shown in Table 8, they have always ensured strict compliance with minimum health and safety protocols such as wearing of face mask and proper and frequent handwashing, provided with adequate food/meals during their entire stay inside the Academy daily, provided with beddings and other supplies as need arises, sleeping arrangements were established, and in In case of other needs, it was sometimes easy to convey to PMMA management thru Ms Danna Pico and Mr. Dwight Evangelista

In terms of appropriateness, the implementation of minimum health and safety protocols such as wearing of face mask and proper and frequent handwashing got the highest rating of 2.83



or highly appropriate. Accordingly, it also gained the highest rating for effectiveness in addition to provision of adequate meals during their entire stay with rating of 2.67 or highly effective.

Conversely, establishment of sleeping arrangements was deemed slightly appropriate and slightly effective having the lowest rating of 1.83 in both aspects.

Table 9
Level of Appropriateness and Effectiveness of Measures Taken from the Mess Staff

COVID19 MEASURE	FREQUENCY		APPROPRIATENESS		EFFECTIVENESS		REMARKS
			MEAN	QI	MEAN	QI	
A1. Pagbigay ng gloves, face masks, face shields, hand sanitizer at vitamins	Araw-araw	15	2.55	Lubhang Naaangkop	2.67	Lubhang Epektibo	
	Kung kinakailangan	1					
	Walang Sagot	1					
	Iba pa (Last Year)	1					
A2. Malinaw na patakaran sa paghahanda, pagplaplano at paghahatid ng mga pagkain at inumin sa mga Covid19 positive.	Madalas	16	2.67	Lubhang Naaangkop	2.67	Lubhang Epektibo	
	Walang Sagot	1					
	Iba pa (Last Month)	1					
A3. Wastong pagkuha ng mga ginamit na pinagkainan.	Madalas	18	3.00	Lubhang Naaangkop	3.00	Lubhang Epektibo	
A4. Pagbigay ng sapat na pagkain habang namamalagi sa loob ng Academy.	Araw-araw	18	3.00	Lubhang Naaangkop	3.00	Lubhang Epektibo	
A5. Pagkaloob ng benepisyo katulad ng overtime at katulad nito.	Madalas	18	3.00	Lubhang Naaangkop	3.00	Lubhang Epektibo	Pero dapat hindi delayed masyado ang pagbibigay ang pagbibigay ng overtime pay.

Table 9 shows that the majority of the Mess staff considered providing gloves, face masks, face shields, hand sanitizer and vitamins and clear policy on preparation, planning and delivery of food and beverages to Covid19 positives, essential Covid19 measures with a mean of 2.55 and 2.67 respectively as highly appropriate and both 2.67 as highly effective measures. Accordingly, all respondents marked three (3) measures and got a perfect rating of 3.00 in terms of appropriateness and effectiveness: proper retrieval of used dishes, providing adequate food while staying inside the Academy, and providing benefits such as overtime and the like, but the provision of overtime pay should not be delayed too much.



Table 10

Level of Appropriateness and Effectiveness of Measures Taken from the Security Staff

COVID19 Measure	FREQUENCY		APPROPRIATENESS		EFFECTIVENESS		Remarks
			MEAN	QI	MEAN	QI	
A1. Pagbigay ng gloves, face masks, face shields, hand sanitizer at vitamins	Araw-araw	19	2.83	Lubhang Naaangkop	2.83	Lubhang Epektibo	
	Kung kinakailangan	5					
A2. Pagbigay ng sapat na supply ng hand sanitizer/alcohol	Madalas	23	2.83	Lubhang Naaangkop	2.33	Bahagyang Epektibo	
	Iba pa (minsan walang stock ng alcohol)	1					
A3. Pagkakaroon ng sapat na Thermometer scanner upang masiguro ang temperatura ng mga pumapasok sa Akademya	Madalas	23	2.33	Bahagyang Naaangkop	2.33	Bahagyang Epektibo	
	Minsan	1					
A4. Pagbigay ng sapat na pagkain habang namamalagi sa loob ng Academy.	Araw-araw	23	2.88	Lubhang Naaangkop	2.88	Lubhang Epektibo	
	Walang sagot	1					
A5. Mahigpit na pagpapatupad at pagbigay ng tagubilin sa seguridad at tauhan sa mga lugar na may panganib na mataas.	Madalas	24	3.00	Lubhang Naaangkop	3.00	Lubhang Epektibo	
A6. Pagkakaroon ng malinaw na patakaran at regulasyon alinsunod sa pagpasok at paglabas sa Academy.	Madalas	24	3.00	Lubhang Naaangkop	3.00	Lubhang Epektibo	

As seen in Table 10, nineteen out of twenty-four respondents (19 out of 24) considered providing gloves, face masks, face shields, hand sanitizer, and vitamins highly appropriate and effective measure with a mean of 2.83. The majority of the respondents regarded providing an adequate supply of hand sanitizer/alcohol as highly appropriate and moderately effective with a mean of 2.83 and 2.33 respectively. One respondent reveals that sometimes there's no stock of alcohol. With regards to having enough thermometer scanners to ensure the temperature of those entering the Academy, the respondents answered “often” and regarded it as moderately appropriate and moderately effective, both with a mean of 2.33. Only one respondent considered it sometimes appropriate and effective. Twenty-three respondents that providing adequate food while staying inside the Academy every day is highly appropriate and highly effective with the same mean of 2.88. One did not answer. All respondents considered strict enforcement and instruction to security and personnel in high-risk areas and having clear rules and regulations in accordance with entering and exiting the Academy as highly appropriate and highly effective, both with a mean of 3.00. This indicates that the Security Unit personnel considered these Covid-19 measures most relevant which is reasonable because it is their main duties and responsibilities.



Table 11

Level of Appropriateness and Effectiveness of Measures Taken from the Janitorial Staff

COVID19 Measure	FREQUENCY		APPROPRIATENESS		EFFECTIVENESS		REMARKS
			MEAN	QI	MEAN	QI	
A1. Pagbigay ng libreng gloves, face masks, face shields, alkohol, at vitamins	Araw-araw	5	2.67	Lubhang Naaangkop	2.44	Lubhang Epektibo	
	Hindi kailanman	4					
A2. Pagbibigay ng sapat na pagkain habang namamalagi sa loob ng Akademya	Madalas	7	2.44	Lubhang Naaangkop	2.44	Lubhang Epektibo	
	Minsan	1					
	Walang Sagot	1					
A3. Pagtiyak ng kaligtasan at pagbigay kamalayan sa mga ipinaghihigpit na lugar	Madalas	4	2.22	Bahagyang Naaangkop	2.00	Bahagyang Epektibo	
	Minsan	4					
	Walang Sagot	1					
A4. Pagpagamit ng PPE kung saan hindi maiwasan ang pagpunta sa quarantine area.	Madalas	3	2.00	Bahagyang Naaangkop	2.10	Bahagyang Epektibo	
	Minsan	3					
	Hindi kailanman	1					
	Walang Sagot	2					
A5. Mahigpit na pagpatupad ng paglilinis at pagdisimpekta ng lahat ng mga lugar lalo na ang mga lugar na quarantine.	Araw-araw	3	2.33	Bahagyang Naaangkop	2.00	Bahagyang Epektibo	
	Minsan	4					
	Hindi kailanman	2					
A6. Pag disimpekta ng mga silid at gusali gamit ang fog machine at fog machine solution	Araw-araw	1	2.00	Bahagyang Naaangkop	2.00	Bahagyang Epektibo	
	Kung kinakailangan	6					
	Walang Sagot	2					
A7. Paggamit ng chlorine at tubig sa pag disimpekta ng mga silid at gusali	Araw-araw	2	1.89	Bahagyang Naaangkop	1.89	Bahagyang Epektibo	
	Lingguhan	2					
	Kung kinakailangan	3					
	Walang Sagot	2					
A8. Pinagkalooban ng face mask at face shield o anumang PPE sa tuwing mag didisimpekta ng mga silid at gusali	Madalas	3	1.78	Bahagyang Naaangkop	1.78	Bahagyang Epektibo	
	Minsan	1					
	Hindi kailanman	3					
	Walang Sagot	2					

Respondents are divided with their experience of providing gloves, face masks, face shields, hand sanitizer, and vitamins. Table 11 illustrates that five respondents said every day they were given the said supplies but four said that it never happened. Though this is regarded as highly appropriate and highly effective with a mean of 2.67 and 2.44 respectively. For providing adequate food while staying inside the Academy, seven respondents said it was often conducted, one answered sometimes and one didn't answer. They considered this as highly appropriate and highly effective. The respondents have different perceptions of the measure ensuring safety and



awareness of restricted areas. Four respondents said it was frequently conducted, four said sometimes and one did not answer. They considered this measure as slightly appropriate and slightly effective. The respondents were divided into often- three, sometimes- three, never- one and no answer- two for the measure use of PPE when going to the quarantine area is unavoidable. In item A5, strict enforcement of cleaning and disinfection of all areas especially the quarantine areas, the staff responded every day- 3, sometimes- 4, and never-2. This is surprising because this is primarily one of their duties. They regarded this as slightly appropriate and slightly effective. In disinfecting rooms and buildings using fog machines and fog machine solutions, the majority of the respondents said that this was done if it is needed. This was considered highly appropriate and highly effective. It also reveals that the Janitorial staff differs in the use of chlorine and water to disinfect rooms and buildings. Two respondents said the use of chlorine and water to disinfect rooms and buildings were conducted daily, two said it was weekly conducted, three said if it is needed and two didn't answer. The measure use of chlorine and water to disinfect rooms and buildings were regarded as moderately appropriate and moderately effective. For the last item, provided with a face mask and face shield or any PPE whenever disinfecting rooms and buildings, the responses were divided as often, sometimes, never, and no answer with mode three, one, three, two respectively. When it comes to disinfecting rooms and buildings, hydrogen peroxide vapor and ultraviolet germicidal irradiation have been considered to decontaminate and allow the reuse of PPE (Zorko et al., 2020) Overall, this reveals that not all respondents were aware and recipients of the measures done by the Academy.

Table 12

Level of Appropriateness and Effectiveness of Measures Taken from Covid 19 Positive Cadets

COVID-19 MEASURE	FREQUENCY		APPROPRIATENESS		EFFECTIVENESS		REMARKS
			MEAN	QI	MEAN	QI	
H1. Ensured strict compliance with minimum health and safety protocols such as wearing of face mask and proper and frequent handwashing.	Always	178	2.52	Highly Appropriate	2.42	Highly Effective	
	Sometimes	21					
H2. The meals provided were varied and nutritious for the health of Covid-19 positive cadets/cadettes	Always	99	2.39	Highly Appropriate	2.34	Slightly Effective	
	Sometimes	91					
	Never	9					
H3. Quarantine facilities/rooms were large enough to ensure physical distancing	Always	92	2.37	Highly Appropriate	2.31	Slightly Effective	
	Sometimes	86					
	Never	21					
H4. Provided with properly ventilated quarantine rooms	Always	116	2.43	Highly Appropriate	2.37	Highly Effective	
	Sometimes	78					
	Never	5					
H5. Beddings and other sleeping necessities were provided adequately	Always	104	2.44	Highly Appropriate	2.43	Highly Effective	
	Sometimes	87					
	Never	8					



H6. Covid-19 positive cadets/cadetesses were excused from attending classes or doing class works in LMS and submissions in hard copy	Always	66	2.26	Slightly Appropriate	2.23	Slightly Effective	
	Sometimes	78					
	Never	55					
H7. Covid-19 positive cadets/cadetesses were not required to have their final examination at the same time as those who were not infected	Always	38	2.01	Slightly Appropriate	2.03	Slightly Effective	
	Sometimes	47					
	Never	114					
H8. Face masks and face shields were provided for free	Daily	12	2.33	Slightly Appropriate	2.33	Slightly Effective	
	Weekly	29					
	As need arises	138					
	Donations	5					
H9. Swab testing was conducted in a timely manner	Never	15	2.51	Highly Appropriate	2.5	Highly Effective	
	Always	126					
	Sometimes	70					
	Never	3					
H10. Medicines were immediately provided	Always	136	2.53	Highly Appropriate	2.52	Highly Effective	
	Sometimes	61					
	Never	2					
H11. Vitamins were given to boost immunity	Daily	47	2.54	Highly Appropriate	2.53	Highly Effective	
	Weekly	72					
	As need arises	79					
	In bulk	1					
H12. Ensured availability of online counseling in times of anxiety, depression, fear, etc.	Daily	23	2.39	Highly Appropriate	2.39	Highly Effective	
	Weekly	30					
	Sometimes	1					
	As need arises	127					
	Once	1					
H13. In case of other needs, it was easy to convey to PMMA management.	Never	17	2.41	Highly Appropriate	2.38	Highly Effective	
	Always	90					
	Sometimes	100					
H14. Suspended formation at the parade grounds	Never	9	2.58	Highly Appropriate	2.6	Highly Effective	
	Full duration of lockdown	181					
	1st week only	2					
	Only for Covid-19 positive	15					
	When there were cases recognized	1					



H15. Suspension of dining at the Mess Hall	Full duration of lockdown	180	2.65	Highly Appropriate	2.63	Highly Effective	
	1st week only	2					
	Only for Covid-19 positive	15					
	Never	1					
	When there were cases recognized	1					
H16. Suspension of mass calisthenics.	Full duration of lockdown	189	2.59	Highly Appropriate	2.57	Highly Effective	
	Only for Covid-19 positive	8					
	Never	1					
	When there were cases recognized	1					
H17. Implemented shifting schedule of mess of cadets to avoid mass gathering and spread of virus	Full duration of lockdown	168	2.56	Highly Appropriate	2.54	Highly Effective	
	1st week only	10					
	Only for Covid-19 positive	11					
	Never	9					
	When there were cases recognized	1					
H18. Limited number of cadets in the quarantine facilities/rooms to ensure physical distancing	Always	117	2.55	Highly Appropriate	2.51	Highly Effective	
	Sometimes	68					
	Never	14					
H19. Cadets were not allowed to go ashore regardless of purpose.	Full duration of lockdown	173	2.61	Highly Appropriate	2.58	Highly Effective	
	1st week only	2					
	Only for Covid-19 positive	16					
	Only for Covid-19 negative	1					
	Whole year	2					
	No idea	1					
	For certain instances only (i.e., death of relatives, resignees, terminated, with assistance of higher ups, medical)	4					



H20. Other notable measure implemented, please specify							
a. Regular disinfection of identified areas	Daily	10	2.89	Highly Appropriate	2.89	Highly Effective	
	Weekly	5					
	Monthly	1					
	As need arises	3					
b. Personal hygiene	3x a day	1	3.00	Highly Appropriate	3.00	Highly Effective	
c. Isolation of Covid-19 positive	Daily	1	2.67	Highly Appropriate	2.67	Highly Effective	
	As need arises	2					
d. Segregation of cadets	Weekly	1	2.00	Slightly Appropriate	2.00	Slightly Effective	
e. Temperature checking	Daily	3	2.67	Highly Appropriate	2.67	Highly Effective	
f. Use of online platform for activities	Daily	1	3.00	Highly Appropriate	3.00	Highly Effective	
	Weekly	1					
g. Maintenance of cleanliness	Daily	1	2.50	Highly Appropriate	2.00	Slightly Effective	
	Weekly	1					
h. Physical distancing	Daily	3	2.60	Highly Appropriate	2.40	Highly Effective	
	Weekly	2					
i. Provision of supplies such as alcohol, disinfectants, mineral water, and medicines	As need arises	3	2.75	Highly Appropriate	2.75	Highly Effective	
	When supply arrives	1					
j. Monitoring of DMA Commandant thru group chat	Daily	1	3.00	Highly Appropriate	3.00	Highly Effective	

As seen in Table 12, majority of the Covid-19 positive cadets/cadettes, who were the most affected with the sudden surge of cases in the Academy, always ensured strict compliance with minimum health and safety protocols such as wearing of face mask and proper and frequent handwashing, always provided with varies and nutritious meals, always have large enough quarantine rooms to ensure physical distancing, always provided with properly ventilated, always provided with adequate beddings and other sleeping necessities, sometimes excused from attending classes or doing class works in LMS and submissions in hard copy, required to have their final examination at the same time as those who were not infected, provided with free face masks and face shields as need arises, swab testing was conducted in a timely manner always, always immediately provided with medicines, given vitamins to boost immunity as need arises, availed online counseling in times of anxiety, depression, fear, etc. as need arises, sometimes easily conveyed to PMMA management their other needs, and always ensured limited number of cadets in the quarantine facilities to ensure physical distancing. Relatedly, the following measures were implemented for the full duration of lockdown according to majority of the respondents: suspension of formation at the parade grounds, suspension of dining at the Mess Hall, suspension of mass calisthenics, shifting schedule of mess pf cadets to avoid mass gathering and spreading of virus, and staying aboard of cadets (not allowed to go ashore regardless of purpose).

Other notable measures implemented were: regular disinfection of identified areas such as quarantine buildings and battalions, personal hygiene or frequent bathing, isolation of Covid-



19 positive, segregation of cadets, regular checking of temperature, use of online platform for classes and morning colors, maintaining cleanliness, physical distancing, provision of supplies such as alcohol, disinfectants, mineral water, and medicines, and monitoring of DMA Commandant thru group chat.

On the measures enumerated in the survey, suspension of dining at the Mess Hall got the highest appropriateness and effectiveness ratings of 2.65 and 2.63 respectively, while the lowest rating was the non-requiring of Covid-19 positive cadets to have their final examination at the same time as those not infected with means of 2.01 and 2.03 or slightly appropriate and slightly effective, respectively.

B.2 Non-Covid-19/Negative

Table 13

Level of Appropriateness and Effectiveness of Measures Taken from Covid 19 Positive Cadets

COVID-19 MEASURE	FREQUENCY		APPROPRIATENESS		EFFECTIVENESS		REMARKS
			MEAN	QI	MEAN	QI	
I1. Ensured strict compliance with minimum health and safety protocols such as wearing of face mask and proper and frequent handwashing.	Always	194	2.54	Highly Appropriate	2.44	Highly Effective	
	Sometimes	21					
	Never	2					
I2. The meals provided were varied and nutritious for the health of the cadets/cadettes	Always	102	2.40	Highly Appropriate	2.38	Highly Effective	
	Sometimes	111					
	Never	4					
I3. Barracks/rooms were large enough to ensure physical distancing	Always	103	2.21	Slightly Appropriate	2.20	Slightly Effective	
	Sometimes	71					
	Never	43					
I4. Provided with properly ventilated barracks/rooms	Always	126	2.24	Slightly Appropriate	2.23	Slightly Effective	
	Sometimes	71					
	Never	20					
I5. Beddings and other sleeping necessities were changed regularly	Weekly	70	2.21	Slightly Appropriate	2.20	Slightly Effective	
	Sometimes	1					
	Every 2 weeks	5					
	As need arises	105					
	Monthly	11					
	Daily	1					
	Never	24					
I6. Face masks and face shields were provided for free	Daily	6	2.24	Slightly Appropriate	2.23	Slightly Effective	
	Weekly	25					
	Once	11					
	As need arises	147					
	Twice	1					
	Sometimes	3					
	When there is a donation	1					
	Never	23					



I7. Cadets' quarters were disinfected regularly	Daily	141	2.54	Highly Appropriate	2.52	Highly Effective	
	As need arises	38					
	Once a month	1					
	Sometimes	1					
	Weekly	34					
	When there's a disinfecting solution	1					
	Never	1					
I8. Vitamins were given to boost immunity	Daily	62	2.55	Highly Appropriate	2.54	Highly Effective	
	Weekly	37					
	As need arises	108					
	Twice	2					
	Once	2					
	Sometimes	1					
	Never	5					
I9. Ensured availability of online counseling in times of anxiety, depression, fear, etc.	Daily	23	2.34	Slightly Appropriate	2.31	Slightly Effective	
	Weekly	29					
	As need arises	146					
	Once	2					
	Never	17					
I10. In case of other needs, it was easy to convey to PMMA management	Always	105	2.44	Highly Appropriate	2.45	Highly Effective	DMA Tactical Unit,
	Sometimes	98					
	Never	14					
I11. Suspended formation at the parade grounds	Full duration of lockdown	206	2.62	Highly Appropriate	2.60	Highly Effective	
	1st week only	1					
	Only for Covid-19 positive	9					
	Sometimes	1					
I12. Suspension of dining at the Mess Hall	Full duration of lockdown	211	2.60	Highly Appropriate	2.62	Highly Effective	
	1st week only	1					
	Only for Covid-19 positive	3					
	Never	2					
I13. Suspension of mass calisthenics.	Full duration of lockdown	207	2.56	Highly Appropriate	2.52	Highly Effective	
	1st week only	1					
	Only for Covid-19 positive	7					
	Never	2					



I14. Implemented shifting schedule of mess of cadets to avoid mass gathering and spread of virus	Full duration of lockdown	192	2.54	Highly Appropriate	2.53	Highly Effective	
	1st week only	12					
	Only for Covid-19 positive	2					
	Did not eat at mess hall	2					
	Never	7					
	1st semester	2					
I15. Limited number of cadets in the barracks/rooms to ensure physical distancing	Always	121	2.50	Highly Appropriate	2.46	Highly Effective	
	Sometimes	73					
	Never	23					
I16. Cadets were not allowed to go ashore regardless of purpose.	Full duration of lockdown	190	2.53	Highly Appropriate	2.50	Highly Effective	
	1st week only	1					
	Only for Covid-19 positive	21					
	Whole year	3					
	Only in some instances	2					
I17. Other notable measure implemented, please specify							
a. Disinfection of barracks, mess hall	Daily	6	2.00	Slightly Appropriate	2.14	Slightly Effective	
	Weekly	2					
	As need arises	1					
b. Isolation/segregation of Covid-19 positive from others	Daily	2	3.00	Highly Appropriate	3.00	Highly Effective	
	Weekly	1					
	As need arises	5					
c. Regular cleaning/maintaining of cleanliness	Daily	2	2.25	Slightly Appropriate	2.25	Slightly Effective	
	Weekly	2					
d. Personal hygiene	Daily	4	3.00	Highly Appropriate	3.00	Highly Effective	
e. Mass testing	Weekly	1	2.29	Slightly Appropriate	2.29	Slightly Effective	
	As need arises	6					
f. Covid-19 negative cadets encouraged to be exposed to the sun	As need arises	1	2.00	Slightly Appropriate	2.00	Slightly Effective	
g. Online classes	Daily	3	3.00	Highly Appropriate	3.00	Highly Effective	
h. Temperature check	Daily	2	2.50	Highly Appropriate	2.50	Highly Effective	
i. Limited number of cadets using head	Daily	1	3.00	Highly Appropriate	3.00	Highly Effective	



j. Delivery of meals in the battalion and other quarantine areas	Daily	1	3.00	Highly Appropriate	3.00	Highly Effective	
k. Putting plastic cover at the quarters	Daily	1	3.00	Highly Appropriate	3.00	Highly Effective	
	As need arises	1					

As seen in Table 13, the non-Covid/negative cadets experienced the following measures: ensured strict compliance with minimum health and safety protocols such as wearing of face mask and proper and frequent handwashing always, sometimes provided with varied and nutritious meals, barracks were large enough to ensure physical distancing always, always provided with properly ventilated barracks/rooms, beddings and other sleeping necessities were changed as need arises, provision of free face masks and face shields as need arises, daily disinfection of cadets' quarters, given vitamins to boost immunity as need arises, availed online counseling in times of anxiety, depression, fear, etc. as need arises, and always limited number of cadets in barracks/rooms to ensure physical distancing. In connection to these, the following measures were implemented for the full duration of the lockdown according to the majority of non-Covid/negative cadets: suspension of formation at the parade grounds, suspension of dining at the Mess Hall, suspension of mass calisthenics, implementation of shifting schedule of mess of cadets to avoid mass gathering and spread of virus, and staying aboard of cadets (not allowed to go ashore regardless of purpose). Moreover, Wild et al., (2021) emphasized that wearing face masks and following safe social distancing are two of the enhanced safety protocols need to be followed in public places in order to prevent the spread of the virus.

Other notable measures implemented were the following: disinfection of barracks and mess hall, isolation/segregation of Covid-19 positive from others, regular cleaning/maintaining cleanliness, personal hygiene, mass testing, Covid-19 negative cadets were encouraged to be exposed to the sun, conduct of online classes, checking of temperature, limited number of cadets using head, delivery of meals in the battalion and other quarantine areas, and putting plastic cover at the quarters.

The suspension of formation at the parade grounds got the highest appropriateness rating of 2.62 while suspension of dining at Mess Hall got the highest effectiveness rating of 2.62 as well. Lowest rating for appropriateness and effectiveness were both the ensuring of physical distancing in large enough barracks/rooms and regularly changing of beddings and other sleeping necessities with a rating of 2.21 or slightly appropriate and 2.22 or slightly effective.

Table 14

Level of Appropriateness and Effectiveness of Measures Taken from Cadets Suspected of Covid 19

COVID-19 MEASURE	FREQUENCY		APPROPRIATENESS		EFFECTIVENESS		REMARKS
			MEAN	QI	MEAN	QI	
J1. Ensured strict compliance with minimum health and safety protocols such as wearing of face mask and proper and frequent handwashing.	Always	15	2.45	Highly Appropriate	2.35	Highly Effective	
	Sometimes	4					
	Never	1					



J2. The meals provided were varied and nutritious for the health of the cadets/cadettes	Always	10	2.45	Highly Appropriate	2.40	Highly Effective	
	Sometimes	10					
J3. Barracks/rooms were large enough to ensure physical distancing	Always	11	2.55	Highly Appropriate	2.50	Highly Effective	
	Sometimes	7					
	Never	2					
J4. Provided with properly ventilated barracks/rooms	Always	13	2.60	Highly Appropriate	2.55	Highly Effective	
	Sometimes	6					
	Never	1					
J5. Beddings and other sleeping necessities were provided adequately	Always	10	2.65	Highly Appropriate	2.55	Highly Effective	
	Sometimes	9					
	Never	1					
J6. Face masks and face shields were provided for free	Daily	1	2.30	Slightly Appropriate	2.35	Highly Effective	
	Weekly	1					
	As need arises	16					
	Never	2					
J7. Cadets' quarters were disinfected regularly	Daily	11	2.65	Highly Appropriate	2.55	Highly Effective	
	Weekly	2					
	As need arises	7					
J8. Vitamins were given to boost immunity	Daily	8	2.65	Highly Appropriate	2.65	Highly Effective	
	Weekly	2					
	As need arises	10					
J9. Ensured availability of online counseling in times of anxiety, depression, fear, etc.	Daily	3	2.45	Highly Appropriate	2.40	Highly Effective	
	Weekly	4					
	As need arises	10					
	Never	3					
J10. In case of other needs, it was easy to convey to PMMA management	Always	7	2.40	Highly Appropriate	2.35	Highly Effective	
	Sometimes	10					
	Never	3					
J11. Suspended formation at the parade grounds	Full duration of lockdown	19	2.80	Highly Appropriate	2.80	Highly Effective	
	Only for Covid-19 positive	1					
J12. Suspension of dining at the Mess Hall	Full duration of lockdown	20	2.80	Highly Appropriate	2.85	Highly Effective	
J13. Suspension of mass calisthenics.	Full duration of lockdown	20	2.80	Highly Appropriate	2.85	Highly Effective	



J14. Implemented shifting schedule of mess of cadets to avoid mass gathering and spread of virus	Full duration of lockdown	15	2.55	Highly Appropriate	2.60	Highly Effective	
	1st week only	2					
	Never	3					
J15. Limited number of cadets in the quarantine facilities/rooms to ensure physical distancing	Always	10	2.60	Highly Appropriate	2.55	Highly Effective	
	Sometimes	8					
	Never	2					
J16. Cadets were not allowed to go ashore regardless of purpose.	Full duration of lockdown	18	2.60	Highly Appropriate	2.60	Highly Effective	
	Only for Covid-19 positive	2					
J17. Antigen/swab testing was conducted in a timely manner	Always	10	2.75	Highly Appropriate	2.70	Highly Effective	
	Sometimes	10					
J18. Other notable measure implemented, please specify							
a. Cleaning of battalion	Daily	1	3.00	Highly Appropriate	3.00	Highly Effective	
b. No mass gathering	Daily	1	3.00	Highly Appropriate	3.00	Highly Effective	
	As need arises	1					
c. Separation of suspected cases	As need arises	1	2.00	Slightly Appropriate	2.00	Slightly Effective	

Table 14 presents that most of the cadets/cadetesses who were considered suspected cases responded that: they have always ensured strict compliance with minimum health and safety protocols such as wearing of face mask and proper and frequent handwashing, always ensured physical distancing given the large enough barracks/rooms, always provided with properly ventilated rooms, always provided with adequate beddings and other sleeping necessities, provided with free face masks and face shield as need arises, regular disinfection of cadets' quarters, given vitamins to boost immunity as need arises, availed online counseling in times of anxiety, depression, fear, etc. as need arises, sometimes easy to convey to PMMA management their other needs, always limited number of cadets in the quarantine rooms to ensure physical distancing, and antigen/swab testing was conducted in a timely manner. Most of these highly appropriate and effective measures implemented by the Academy are being performed nationwide, indeed, governments around the world have employed highly operational public safety measures, including recommendations and other campaigns for improved hygiene practices, passing social distancing requirements and restricting public gatherings. (Trung, 2019) Relatedly, the following measures were implemented for the full duration of the lockdown according to most respondents: suspension of formation at the parade grounds, suspension of dining at the Mess Hall, suspension of mass calisthenics, implementation of shifting schedule of mess of cadets, and staying aboard of cadets in the Academy (not allowed to go ashore regardless of purpose).

Other notable measures implemented were cleaning of battalion, prohibition of mass



gathering, and separation of suspected cases. Suspension of formation at the parade grounds and suspension of dining at the Mess Hall got the highest ratings for both appropriateness and effectiveness with mean of 2.80 and 2.85 respectively.

Table 15
Summary Result of Common Statements

COVID19 MEASURES	FREQUENCY	COUNT	APPROPRIATENESS		EFFECTIVENESS	
			Mean	QI	Mean	QI
Providing gloves, face masks, face shields, hand sanitizer, and vitamins.	Araw-araw	39	2.68	Highly appropriate	2.66	Highly Effective
	Kung kinakailangan	6				
	Walang Sagot	1				
	Hindi kailanman	4				
	Iba pa (Last Year)	1				
Employees were provided with adequate food/meals during their entire stay inside the Academy	Daily/Always	53	2.75	Highly appropriate	2.75	Highly Effective
	Sometimes	1				
	As need arises	1				
	No Answer	2				
Was consulted on the action plan to be taken.	Daily	3	2.6	Highly appropriate	2.57	Highly Effective
	Always	4				
	Weekly	3				
	Sometimes	4				
	As need arises	8				
	Never	3				
Ensured strict compliance with minimum health and safety protocols such as wearing of face mask and proper and frequent handwashing	Daily	8	2.68	Highly appropriate	2.6	Highly Effective
	Always	398				
	Sometimes	47				
	As need arises	1				
	Never	3				
Restricted MASS GATHERINGS of cadets through suspension of: a) formation at the parade grounds	Full duration of lockdown	413	2.61	Highly appropriate	2.61	Highly Effective
	Only for Covid-19 positive	26				
	First week only	3				
	Sometimes	1				
	Never	1				
	When there were cases recognized	1				
The meals provided were varied and nutritious for the health of COVID-19 positive cadets/cadettes	Always	211	2.41	Highly appropriate	2.37	Highly Effective
	Sometimes	112				
	Never	13				
Quarantine/Barracks facilities/rooms were large enough to ensure physical distancing	Always	206	2.38	Highly appropriate	2.34	Highly Effective
	Sometimes	164				
	Never	66				



Provided with properly ventilated quarantine/barracks/rooms	Always	255	2.42	Highly appropriate	2.38	Highly Effective
	Sometimes	155				
	Never	26				
Employees/Cadets were provided with beddings and other supplies	Always	114	2.59	Highly appropriate	2.44	Highly Effective
	As need arises	101				
	Once only for beddings	10				
Face masks and face shields were provided for free	Daily	19	2.29	Slightly appropriate	2.3	Slightly effective
	Weekly	55				
	Once	11				
	As need arises	301				
	Twice	1				
	Sometimes	3				
	Donations	6				
	Never	40				
Checked and ensured the number of patients in each room in the quarantine area is enough to adhere to physical distancing rules.	Daily	4	2.41	Highly appropriate	2.35	Highly Effective
	Weekly	1				
	Sometimes	4				
	As need arises	4				
Suspension of dining at the Mess Hall	Full duration of lockdown	411	2.68	Highly appropriate	2.7	Highly Effective
	1st week only	3				
	Only for COVID-19 positive	18				
	Never	3				
	When there were cases recognized	1				
Suspension of mass calisthenics.	Full duration of lockdown	416	2.65	Highly appropriate	2.65	Highly Effective
	First week only	1				
	Only for COVID-19 positive	15				
	Never	3				
	When there were cases recognized	1				
Implemented shifting schedule of mess of cadets to avoid mass gathering and spread of virus	Full duration of lockdown	375	2.55	Highly appropriate	2.56	Highly Effective
	1st week only	24				
	Only for COVID-19 positive	13				
	Did not eat at mess hall	2				
	Never	19				
	1st semester	2				
	When there were cases recognized	1				



Cadets were not allowed to go ashore regardless of purpose.	Full duration of lockdown	363	2.58	Highly appropriate	2.56	Highly Effective
	1st week only	3				
	Only for Covid-19 positive	37				
	Only for Covid-19 negative	22				
	Whole year	5				
	No idea	1				
	For certain instances only (i.e., death of relatives, resignees, terminated, with assistance of higher ups, medical)	6				
Vitamins were given to boost immunity	Daily	117	2.58	Highly appropriate	2.57	Highly Effective
	Weekly	111				
	As need arises	197				
	Twice	2				
	Once	2				
	Sometimes	1				
	Never	5				
	In bulk	1				

Table 15 summarizes the common statements of the respondents. The following were:

Providing gloves, face masks, face shields, hand sanitizer, and vitamins. Majority of the respondents (76.47%) regarded this measure as highly appropriate and highly effective done by the Academy.

Employees were provided with adequate food/meals during their entire stay inside the Academy. It is evident from the 53 out of 57 (92.98%) employees who stayed in the Academy during the lock down that they were satisfied with the provision of adequate meal.

Was consulted on the action plan to be taken. With regards to whether the Department/Unit Heads, Faculty, DMA, and Medical Unit were consulted on the action plan to be taken, the responses were divided, the highest frequency of 8 (32%) said they were consulted as need arises.

Ensured strict compliance with minimum health and safety protocols such as wearing of face mask and proper and frequent handwashing. 398 out of 457 (87.09%) of the respondents marked it always and observed that this is highly appropriate and highly effective.

Restricted MASS GATHERINGS of cadets through suspension of: a) formation at the parade grounds. This was implemented in full duration of the lockdown with 413 (92.81%)



mode. Twenty-six (5.84%) responded only for Covid-19 positive.

The meals provided were varied and nutritious for the health of COVID-19 positive cadets/cadettes. The respondents believe that they were served with varied and nutritious food appropriate with their condition always with 211 count (62.80%).

Quarantine/Barracks facilities/rooms were large enough to ensure physical distancing. The respondents were divided with their answers, 206 out of 436 believed that they were isolated to facilities/rooms ensuring physical distancing

Employees/Cadets were provided with beddings and other supplies. The employees and cadets were satisfied that they were provided with beddings and other supplies always with 114 and as need arises with 101 responses.

Face masks and face shields were provided for free. The most common response of the respondents was they were provided free face masks and face shields as need arises with 301 frequency.

Checked and ensured the number of patients in each room in the quarantine area is enough to adhere to physical distancing rules. This measure

Suspension of dining at the Mess Hall. During the full duration of lockdown, common response of 411 (94.27%) respondents said that dining at the Mess Hall was suspended.

Suspension of mass calisthenics. Four hundred sixteen (95.41%) respondents commonly answered that this was implemented in full duration of lockdown.

Implemented shifting schedule of mess of cadets to avoid mass gathering and spread of virus. Three hundred seventy-five (86.01%) respondents commonly answered that this was implemented in full duration of lockdown.

Cadets were not allowed to go ashore regardless of purpose. Three hundred sixty-three (83.07%) respondents commonly answered that this was implemented in full duration of lockdown.

Vitamins were given to boost immunity. The respondents commonly answered that they were provided with vitamins to boost immunity as need arises with a frequency of 197 or 45.18%.

Based on the result of the common statements, the Academy implemented measures that adheres IATF safety protocols that were commonly regarded by the majority of the respondents as highly appropriate and highly effective.



Table 16
Practices to be Corrected or Avoided

What practices must be corrected/avoided to ensure safety of cadets and employees?	Count	%
All the practices must be corrected	1	0.46%
Allowing negative cadets to stay inside the Academy	9	4.13%
Be proactive not reactive	1	0.46%
Behavior	2	0.92%
Quality of quarantine facilities	1	0.46%
Change of beddings	1	0.46%
Class system	1	0.46%
Contingency plans	1	0.46%
Use of non-disposable mess kits	1	0.46%
Conduct of face-to-face lessons	1	0.46%
Allowing employees to go ashore even if lockdown is implemented	9	4.13%
Guidelines in quarantine facilities	20	9.17%
Guidelines on how to treat Covid-19 patients	1	0.46%
Health-related practices	8	3.67%
Implementation/compliance to IATF/PMMA health and safety protocols	130	59.63%
Quality of meals (nutritious)	2	0.92%
Quality of quarantine facilities	1	0.46%
Suspension of liberty of cadets	6	2.75%
Not conducting mass testing	6	2.75%
Mess kits of COVID-19 positive not gathered separately	1	0.46%
Conduct of activities must be online	1	0.46%
Mess kits must be permanent	1	0.46%
Personal responsibility	1	0.46%
No physical fitness activities	1	0.46%
Not allowing positive cadets to go home	1	0.46%
Provision of free supplies (face mask, alcohol, vitamins)	5	2.29%
Quick response of medical team	1	0.46%
Segregation of cadets	1	0.46%
Tolerating AWOL	1	0.46%
Vaccination	2	0.92%
TOTAL	218	100.00%

Table 16 shows the respondents' insights on what practices must be corrected/avoided to ensure safety of cadets and employees. For those who have indicated an answer, the implementation/compliance IATF/PMMA health and safety protocols garnered the most response. The respondents stated that employees and students must strictly abide by the health and safety protocols issued by IATF and PMMA which include observation of physical distancing, proper use of protective personal equipment including face mask and face shield especially when they interact with one another, suspension of mass gathering, avoidance of close contact with



others/face-to-face meetings, monitoring of personnel/people who comes in and out of the Academy, and checking the swab test/antigen test results of incoming personnel/visitor/students.

In addition, respondents also stated that the guidelines on quarantine facilities must be corrected. There must be proper quarantine areas for positive and negative Covid-19 cases. These quarantine areas must also accommodate a limited number of personnel/students to avoid overpopulation and ensure physical distancing. A proper procedure in handling contagious diseases must also be in place. Further, those who are not billeted in the quarantine areas must strictly cannot go near the areas to avoid infection and further spread of the virus, thus, all negative cadets must not fetch water, distribute mess, and perform other duties for those who are positive.

It can also be gleaned in the table that respondents stated that allowing cadets, especially those who are negative stay inside the Academy premises must be corrected. They believe that cadets especially those who tested negatively must be allowed to go ashore/home because confining them here where there are a lot of cases would put them in high risk of infection. Mass testing must also be conducted instead of just testing those who are symptomatic since there are also infected who are asymptomatic. This way, it will be easier to contain the virus and prevent further spread.

Table 17
Other Measures Implemented to Mitigate the Covid-19 cases

OTHER PRACTICES/MEASURES IMPLEMENTED
Additional designated berthing area
Reduction of CDO and OOD to lessen possible exposure
Use of electronic platform to do transactions/appointments
Notification of concerned individual
Implementation of skeletal workforce
Conduct of Covid-19 RT-PCR/Swab testing
Limited face to face between midshipmen/women and Tactical Officers
Segregation of infected cadets from others
Purchased sprayer and alcohol for regular disinfection
Personal hygiene
Temperature checking
Maintenance of cleanliness
Physical distancing
Provision of supplies such as alcohol, disinfectants, mineral water, and medicines
Disinfection of barracks, mess hall
Covid-19 negative cadets encouraged to be exposed to the sun
Limited number of cadets using head
Delivery of meals in the battalion and other quarantine areas
Putting plastic cover at the quarters
No mass gathering

According to the respondents, as seen in Table 17 ,the Academy has also implemented other measures to combat the sudden surge of Covid-19 cases.



Table 18
Recommended Measures for Future and Similar Incidents

What other measures do you recommend to prevent infection and immediate spread of the virus at PMMA?	Count	%
Allow negative cadets to go ashore	81	29.56%
Automate/develop information system (e.g., HRIS)	1	0.36%
Class system	1	0.36%
Maintain cleanliness of the surroundings, barracks, buildings, etc.	3	1.09%
Communication between Corps of Midshipmen and Tactical Officers	1	0.36%
Contingency plan	1	0.36%
Cooperation of everyone	1	0.36%
Discipline	2	0.73%
Creation of Disinfection tunnel at the Main Gate	1	0.36%
Use of disposable mess kits	1	0.36%
Exercise per company	1	0.36%
Full lockdown	7	2.55%
Improve guidelines in quarantine facilities	3	1.09%
Health-related measures (e.g., regular check-up of all cadets and employees, other students who has capabilities to be quarantined outside of school should be allowed to do so, provision of nutritious food and vitamins)	6	2.19%
Immediate isolation of Covid-19 positive cases	9	3.28%
Improve quarantine facilities	2	0.73%
Increase manpower in Mess Unit for delivery of mess kits	1	0.36%
Liberty of cadets	10	3.65%
Learning Management System be done at home instead of here at PMMA	1	0.36%
Mass testing	20	7.30%
Mess kits must be permanent to avoid interchanging and further infection	2	0.73%
Regular monitoring of infected cadets	2	0.73%
No borrowing of personal things	1	0.36%
No face-to-face transactions	3	1.09%
Personal hygiene	2	0.73%
Personal responsibility	4	1.46%
Preparation for unforeseeable circumstances	1	0.36%
Procurement of equipment (e.g., UV light)	1	0.36%
Provision of rechargeable battery for thermal scanner	1	0.36%
Provision of sufficient supplies (e.g., free face mask, face shield, alcohol, disinfectant solutions, aerosols, hand sanitizers)	13	4.74%
Regular changing of beddings	2	0.73%
Regular disinfection of buildings, rooms, etc.	3	1.09%
Segregation of positive from negative cadets	1	0.36%
Have a separate clinic to those who have symptoms	1	0.36%
Simple precautions	1	0.36%
Strict implementation of health protocols	70	25.55%



Vaccination of employees and cadets	12	4.38%
Work-from-home scheme implementation	1	0.36%
TOTAL	274	100.00%

To address other future and similar incidents, respondents recommend that PMMA must strictly adhere to the health and safety protocols issued by the national and local IATF. Employees and students must at all times ensure physical/social distancing even at the barracks (use of bedsheets as a cover separation between bunks), and proper wearing of personal protective equipment such as face mask and face shield. Students who were also tested negatively must be allowed to go home or ashore to reduce their possibility of infection.

Additionally, a suggestion was also made on the proper disinfection of packages that come outside which should be done at the main gate. Relatedly, for the employees and Tactical officers that goes in and out of the academy, the Academy should have a Disinfection Tunnel which is used by most of the public places like malls or supermarkets which they called mobile thermometry disinfection tunnel.

Vaccination of all employees and staff was also recommended as well as regular check-up, provision of free vitamins and minerals to boost the immunity of everyone. Sufficient supplies such as free face mask, face shield, alcohol, disinfectant solutions, aerosols, hand sanitizers must also be provided to ensure compliance to health and safety protocols at all times.

Conclusion and Recommendations

The education sector is one of the greatly affected by the Covid-19 pandemic. In the Philippines, Higher Education Institutions have also had to adjust to the new situation where face-to-face interaction is prohibited and go on Online Learning. The PMMA opted to continue with their operations considering the distinct characteristic of PMMA. However, unavoidable challenges caused by Covid-19 infection hit the Academy.

Based on the findings, it can be concluded that PMMA fared well in conquering the Covid-19 surge inside the academy, with the fact that the lockdown was lifted in July 8, 2021, with zero casualties. The different measures evaluated were proven appropriate and effective as evaluated by the different sets of respondents. Moreover, there were additional measures that other departments/units had implemented that supported the goal of eradicating the virus inside the academy. And the recommended additional measures, although mostly are better implementation of the existing measures, are signs that everyone takes their safety seriously.

To mitigate these challenges while also building a more resilient system that can withstand future and similar circumstances that may occur, the following are recommended:

1. Continue implementing the safety protocols, including the conduct of immediate contact tracing, as guided by the IATF (national and local) and PMMA guidelines. Dynamism, however, is a necessary ingredient in all issuances, so that we can readily adapt to changes brought by the alterations and variants of the virus and other similar viruses.



2. Stricter implementation and proper monitoring of some of the current protocols. The key to the success of any released guideline is the implementation and monitoring.
3. Students who were sent outside for important reasons must be quarantined when they return. In a situation that students cannot avoid to go ashore, well-defined guidelines and policies must be implemented upon going ashore and coming aboard. Following the protocol given to new entrants and the recently boarded cadets/cadetres doesn't harm the system. Instead, it gives assurance of safety for all.
4. A Work from Home (WFH) arrangement be considered for implementation. The administration team may consider or follow what other agencies are doing relative to WFH (i.e. DepEd, GSIS, etc.) or check offices that can really do WFH just to lessen exposure.
5. The vaccination of all PMMA employees and cadets be worked on. Through the National Vaccine Deployment Plan, the Philippine government ensure national vaccine deployment program accessible for all Filipinos. Although it is not that easy to avail of the vaccine since the Philippine National Deployment and Vaccination Plan formulated strategies and contingencies to ensure the equitable distribution of vaccine products. The students and other government employees are not in the priority eligible A, so, it is recommended that the Academy work for the vaccination of the employees and the students.
6. The PMMA comes up with a financial strategy to better implement the different protocols. A well-laid plan with clear source of financial support can assist the Academy in the procurement request and approval of funding from external sources, including that of the government and stakeholders.
7. A permanent Emergency Management Team (EMT) be created. It is imperative that the Academy use this experience (conquered the recent surge of the COVID-19) to be better prepared for future and similar crisis. The creation of EMT is a planned response against the adverse effects of crisis and inevitable threats. The to-be-released memorandum should at least have the composition (e.g. Medical [1], Safety [1], Planning [1], Finance [1], etc.) and their main responsibilities (i.e. create a readily implementable Crisis Management Plan (CMP) for all possible and future disaster- and health-related crisis, implement the CMP). In addition, this team shall:
 - a. review the result of this research (currently implemented and proposed protocols) and come up with the list of most appropriate and most effective measures;
 - b. coordinate with the finance team for possible source of funding; and
 - c. evaluate the CMP every year-end or whenever the CMP has been executed for possible improvement.

These efforts will help the Academy to recover from the challenges of COVID-19 while also adapting more resilient and flexible approaches going forward. Future studies are further recommended such as planning and implementation strategy, assessing learning online systems of the Academy, a survey on online platforms, development of online instructional materials appropriate to new normal setting and many more.



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