Maritime Students’ Anxiety and Coping Strategies During COVID-19 Pandemic

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Abstract – This study aims to determine the anxiety and coping strategies practiced by maritime students during the pandemic. Coming into the new normal, students must adjust to the new mode of learning, which is online. The study used a descriptive comparative research design among the 300 maritime students. The collected data were analyzed using a variety of statistical instruments, including ratio, rating, weighted mean, and analysis of variance (ANOVA) using the statistical program PASW v 18. Based on the result of the study, Health, education, and financial expenses are factors affecting anxiety while following health protocols and doing relaxation activities are the coping strategies of maritime students during COVID-19 pandemic. When respondents are classified according to profile variables, there is no discernible variation in their responses. With this, it was recommended to provide e-book for each course that focuses on the major subject. The university may organize a Financial Literacy Program. Practical contribution was implied since a plan of action was proposed to lessen the anxiety experienced by maritime students during COVID-19 pandemic.

Keywords – Anxiety, COVID 19, Health, Maritime, Safety, Students.

INTRODUCTION

Pandemics are diseases that arise at once in human history, killing millions of people and wreaking havoc on the public’s mental health. It shows that it has detrimental effects on not just the psychology of those who are affected by the pandemic, but also the psychology of future generations. Pandemics have been attributed to mental health problems including depression, fear, and death hysteria, bereavement, post-traumatic stress disorder, psychotic symptoms, and general mourning [1].

Coming into the new normal, students must adjust to the new mode of learning, which is online. This provides negative impact to students as shown in the study of Adnan, Muhammad, Anwar and Kainat [2] where it was found there that underdeveloped countries, Pakistan is one of these nations, where due to technological and financial issues, online learning for students is unlikely to generate desired results due to a lack of internet access. This can be related to the third world country Philippines, where there is limited access to good internet connection, lack of knowledge in the use of technology and money issues. Students are stressed because of these issues, and their success in online classes has suffered a poor result. They are concerned not only with their physical state but also with their psychological well-being.

Anxiety is an anxious, apprehensive, fearful, or worried state. Some fears and concerns are understandable, such as concern for a loved one or anxiety about taking a quiz, test, or other evaluation. Issue anxiety makes it difficult for the sufferer to sleep or act normally. Irritability is a common symptom of a variety of emo disorders in adolescents, which is exceptional [3].

In the study of Gao, Ping, and Liu [4], in certain parts of the world, depression and anxiety symptoms are widespread among university students, and they have a negative impact on their quality of life and academic success. Apart from the many people who have lost their jobs, the government and the education system have been caught off guard by this global phenomenon, which has resulted in a rough transition of classes from face-to-face to virtual. He further wrote in their paper that mental health issues among university students have been a source of concern around the world. Students at colleges have a greater prevalence of depression than the general population, according to a previous systematic study.

Coping is the act of putting in conscious effort and energy to overcome personal and interpersonal
problems. Coping techniques for stress help to master, eliminate, or embrace stress and stressors that occur in daily life. Although the term "coping" refers to dealing with the anxiety that arises after the occurrence of a stressor, many people use constructive coping mechanisms to reduce or prevent stressors before they arise. According to Snyder [5], as they go through their everyday lives, most individuals take the process of coping for granted. Coping can be related to breathing, like an auto mechanism as a response to life. When people are confronted with truly threatening situations, however, they become acutely aware of the coping mechanism and react by consciously using their everyday coping skills.

Due to the COVID-19 pandemic, the sector's governing bodies on education are required to change the way they teach students. This is a way for the Philippines to invest in future education by starting to implement flexible types of learning. Classroom instruction was modified to online learning to continue to learn even in times of pandemic.

While the problem relating to maritime students’ anxiety and coping strategy is still new, the researchers who are also a student, firsthand experienced dealing with anxiety and provide ways to cope up during the pandemic. Health issues, online learning difficulties as well as expenses are some of the problem’s students have to deal with during this pandemic. In line with this, the study aims to determine the anxiety and coping strategies practiced by maritime students during the pandemic. The researchers believe that through this study, they would be able to provide an action plan to minimize the anxiety of the student and provide ways to cope with the needs of online studying during the pandemic.

**OBJECTIVES OF THE STUDY**

The study determined the anxiety and coping strategies of maritime students during COVID-19 Pandemic. Specifically, it sought answers to the following questions: present the profile of the respondents in terms of program, age, geographical location, and family monthly income; determine the anxiety and coping strategies of maritime students during COVID-19 Pandemic; test the significant difference on the responses when respondents are grouped according to profile variables; and propose a plan of action based on the result of the study.

**MATERIALS AND METHODS**

**Research Design**

The study used a descriptive comparative research design. In descriptive-comparative analysis, the researchers recognize two unmanipulated variables and establishes a systematic protocol to determine which is superior to the other. For instance, an inspection body wishes to decide which form of administering examinations, paper-based or computer-based, is superior. During this pandemic in LIMA, the researchers employed a descriptive approach to classify the characteristics and coping strategies of maritime students.

**Participants of the Study**

The respondents in this study are maritime students who are enrolled in Lyceum International Maritime Academy for the Academic Year 2020-2021. There are a total of three hundred (300) respondents wherein there are one hundred (100) respondents of the study per year level, sixty (60) Junior II of BSMT; forty (40) Junior II of BSMarE; seventy-eight (78) Senior II of BSMT; twenty-two (22) Senior II of BSMarE; seventy-one (71) Senior IV of BSMT and twenty-nine (29) Senior IV of BSMarE.

**Instruments**

The researchers used a survey questionnaire to obtain the data required for the study. The questionnaire consists of two main parts. The first part of the questionnaire includes the demographic profile of the respondent’s such as academic program, age, geographical location, and family monthly income. The second part of the questionnaire determines the anxiety and coping strategies of the maritime students during COVID-19. The researchers adapted the questionnaire in the study of Baloran [6] Knowledge, Attitudes, Anxiety, and Coping Strategies of Students during COVID-19 Pandemic and revised it in accordance with the study. The set of questionnaires had undergone validation through the help faculty expert and adviser.

**Data Gathering Procedures**

The respondents were assured of the study’s objective and the questionnaire’s contents. The questionnaires were distributed to maritime students in LIMA via google forms. The responses were automatically collected and tallied as soon as the number of responses needed was reached.

**Data Analysis**

The collected data were analyzed using a variety of statistical instruments, including ratio, rating, weighted mean, and analysis of variance (ANOVA). These techniques were selected in accordance with the
study's objective. Additionally, to aid in the evaluation of the study's findings, all data were treated and computed using the statistical program PASW v 18.

**Ethical Considerations**

To maintain the study's high level of privacy, no specific names would be listed in the journal. The respondents' names would not be disclosed but was only told that they were Lyceum International Maritime Academy maritime students. The researchers did not express their own opinions but will instead include facts and conclusions based on the gathered evidence.

**RESULTS AND DISCUSSION**

<table>
<thead>
<tr>
<th>Program</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSMT</td>
<td>209</td>
<td>69.7</td>
</tr>
<tr>
<td>BSMARE</td>
<td>91</td>
<td>30.3</td>
</tr>
</tbody>
</table>

**Age**

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 – 18</td>
<td>31</td>
<td>10.3</td>
</tr>
<tr>
<td>19 – 21</td>
<td>251</td>
<td>83.7</td>
</tr>
<tr>
<td>22 – 23</td>
<td>16</td>
<td>5.3</td>
</tr>
<tr>
<td>24 years and above</td>
<td>2</td>
<td>0.7</td>
</tr>
</tbody>
</table>

**Geographical Location**

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>141</td>
<td>47.0</td>
</tr>
<tr>
<td>Urban</td>
<td>159</td>
<td>53.0</td>
</tr>
</tbody>
</table>

**Family Monthly Income**

<table>
<thead>
<tr>
<th>Family Monthly Income</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>20,000 and below</td>
<td>131</td>
<td>43.7</td>
</tr>
<tr>
<td>20,000 – 50,000</td>
<td>104</td>
<td>34.7</td>
</tr>
<tr>
<td>50,000 – 100,000</td>
<td>50</td>
<td>16.7</td>
</tr>
<tr>
<td>100,000 and above</td>
<td>15</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Table 1 presents the characteristics of the respondent’s profile in terms of program, BSMT has a frequency of 209 or 69.7% while the BSMARE program has a frequency of 91 or 30.3%. This implies that, in Lyceum International Maritime Academy (LIMA), there are more students aspiring to be a part of the deck department and be Master of the ship rather than being the ship’s Chief Engineer. Employment maybe one factor considered in choosing the program as stated in the study of Orencia and Laguador [7] where in 42.11% of the BSMT graduates found job opportunities through the help of the shipboard training while 39.04% of the BSMARE graduates were employed after their academic completion.

In terms of age, the vast number of respondents were revealed to be ages 19-21 years old with a frequency of 251 or 83.57% while ages 24 years and above were the least with a frequency of 2 or 0.7%. This shows that students of LIMA during the gathering of data were teenagers to young adults while there are two (2) people at the age of 24 years and above. According to The Hamilton Project [8], in the age distribution of undergraduate students, most of the students are ages 18-24 which are in line with the data gathered by the researchers.

For the geographical location, the study shows that there are more students living in the urban area with a frequency of 159 or 53% while the students living in the rural area have a frequency of 141 or 47%. The researchers believe that there are more students living in the urban area because of the location of the campus being in an urban area, as well as the support and convenience that they can get while not all from the rural areas can afford the high tuition fee of the maritime programs and thus not often supported. In the study of Kemer and Atik [9], students in the urban area were supported in service in terms of affection and self-esteem, material support, and sexuality which are all considerable factors when entering a maritime institution. Lastly for the family monthly income, most students have a family income of 20,000 and below with a frequency of 131 or 43.7% while 15 students or 5% of the respondents have a family income of 100,000 and above. According to the Philippine Statistics Authority [10], the results from the “2015 Family Income and Expenditure” is that the total annual family income of a Filipino family is two hundred sixty-seven thousand peso (267,000) or a monthly income of about eighteen thousand peso (18,000) which is in line with the data gathered by the researchers.

Table 2 reveals the anxiety of maritime students during COVID-19 Pandemic. A composite mean of 3.13 indicated that the respondents often feel anxiety on the indicators mentioned above. Among these indicators of anxiety, “I often feel worried about the health of my family who go out of our house” ranked number 1 with a weighted mean of 3.48. Since getting out of the house increases the probability of getting infected by the virus, students' anxiety rises especially if they have little to none if they got infected already. As cited in the study of Trougakos, et al., [11], lives have been turned upside down by the COVID-19 pandemic, however little is known about how COVID-19 health anxiety, or feelings of fear and uncertainty about getting or contracting COVID-19 affects vital job, home, and health outcomes. In addition, in the study of Faisal, et al., [12], reveals that students’ mental health issues were very high, and students have shown symptoms of psychopathology due to pandemic.
“I am worried about my studies because of the pandemic” got the second rank. COVID-19 had affected higher educational establishments worldwide, not only in the virus’s source city of Wuhan, China, but in 188 nations as well. Despite the COVID-19 difficulties, educational precautions are taken to ensure that students continue to receive an education [13]. Furthermore, in the study of Fawaz and Samaha [14], undergraduate students at universities have developed depression and anxiety disorders because of online learning. “I am concerned about my expenses for online learning during the pandemic. (e.g., load, usable gadget, etc.)” ranked third. This shows that financial expenses are one major factor affecting anxiety of the students during COVID-19. According to Brancaccio, Schwab, and Schroeder [15], there are many expenses associated with homeschooling. There is also a technology upgrade necessary for households who do not have access to the internet or need a more reliable connection. Additionally, families of many children use a variety of technologies. This was also mentioned in the article of Terry [16], where students will pay more for online classes because they must pay technology fees that on-campus students do not have to pay, and more expenses result in additional anxiety felt by students during the pandemic.

On the other hand, “I feel that the online classes are not effective for me” got the lowest mean score of 2.78 and ranked bottom among the indicators. This is because online learning provides a flexible type of learning and ease of access to information through the help of the internet. As mentioned in the study of Caroro, et al., [17] it was also discovered that combining an online learning system with conventional instruction provides students with a great deal of comfort and ease in improving their learning. Also, there are many platforms that can be used to enhance student’s collaboration and creativity as mentioned in the study of Francisco and Barcelona [18] where it says that to help students improve their creative writing skills in the classroom, renowned researchers developed a web-based learning system that incorporates scaffolding procedures and immersive learning strategies. The LPU Learning Management System (LMS) is one type of web-based learning used by students in LIMA for interactions with the teachers and other students.

“I am affected by the posts I saw on social media about the covid-19 infection every day” ranked second to the bottom. Nowadays, students are very educated regarding social media posts and they will find ways to know if the post is genuine or fake. And with the other stressors they must deal with social media posts that are less considered by them. In the study of Leeder [19], it shows that students correctly classified false news in 64.29 percent of cases and true news in 60.58 percent of cases. In addition, students tend to neglect social media posts because it turns out to be a distraction to their studies as mentioned in the study of Siddiqui and Singh [20] wherein the negative effects of social media in education are that it brings distraction to the students attending to their classes. Lastly, “I am worried that I am infected by the virus without knowing it.” ranked third from the bottom.
since vaccines are now available to fight for the virus. A healthy and reliable vaccination will protect individuals in various ways, first is directly by immunizing high-risk populations and indirectly by immunizing others who encounter high-risk persons [21]. Also, as stated by the Department of Health [22] always advised the public to practice preventive measures to fight the virus. With handwashing being the most effective measures in preventing the virus. Everyone is always reminded of the safety health protocol and symptoms are known by everyone which is why worrying about being infected by the virus without knowing it is among the least indicators of anxiety among students.

Table 3 display the coping strategies practiced by students during covid-19. The composite mean of 3.10 implies that the respondents often practice the above indicators. Among the items cited, “follow health and safety protocols e.g. (handwashing, facemask)” ranked first. The respondents are fully cognizant that following safety protocols will help them fight mental health problems during the pandemic. Disease transmission was halted among health-care workers after strict protective measures were implemented, which alleviated their anxiety and helped them get through the epidemic [23]. This is in line with the study of Faye, Boëlle, et al. [24] which stated that, individuals must observe extremely strict infection control practices during a virus outbreak, including standard protocols and restricting public exposure, which will then minimize anxiety symptoms.

It was followed by “do relaxation activities like meditation, sports, music, etc.” ranked second. The respondents also depend on activities that will distract them and ease the fear and anxiety brought by the pandemic. As cited in the study of Kwaah and Essilfie [25], students utilized a number of approaches to deal with discomfort, including praying/meditating and self-distracting behaviors such as viewing television and listening to music. Ganesan, et al., [26] added that, students should be supported to participate in recreational ventures such as physical/mental sports, music, mediation, etc. to help them cope with stress. It has been established that extracurricular activities are commonly used as a stress coping mechanism.

In rank 3, “go to places to have a strong internet connection.” The researchers believe that e-learning in the Philippines is still not going smoothly, due to the fact that there are still a lot of students who go out of their houses, risking their health in order to find a strong and reliable internet connection. According to Cuanon [27], e-learning or distance learning is not the best, most preferred, or most conditioned method of teaching and learning. Even before the COVID-19 pandemic struck, the country had been plagued by bad and expensive internet connectivity. In contrast, according to the study of Casillon [28], instituting an e-learning platform and staying current with fast-changing technology would certainly benefit the students, but doing so in an internet-scarce province poses a number of concerns. Cuanon [27] added that the high cost of accessing internet connectivity burdens
disadvantaged students whose families are still struggling to meet their educational needs.

However, “vent out feelings by screaming, crying, etc.” ranked 13. The researchers concluded that the respondents understand venting out leads to poor outcomes. The study of Crego, Carrillo-Diaz, Armfield, and Romero [29] stated that negative auto-focus and coping mechanisms such as venting negative feelings have a negative effect. In addition, the study of Eisenberg, Shen, Schwarz, and Mallon [30] as cited in the study of Salman et al. [31] stated that, avoidant coping, such as venting, is ineffective at reducing anxiety and has been related to worsening physical health in people with medical problems.

Following that, in rank 14, “avoid news media like television, radio, newspapers, blogs, etc.” The researchers deduced that avoiding news media as a coping mechanism is not possible in this time where information is everywhere and accessible. This was supported by Frey et al. [32], where only few started limiting their news exposure as a coping strategy to cope up with anxiety caused by the pandemic. Kinser, et al., [33] added that, while it is thought that using social/news media improves social connections and awareness, findings show that increased media use is linked to increased anxiety symptoms.

In rank 15, renting a computer in an internet café” The researchers concluded that most of the respondents have access to devices needed for online learning, and only some of them experience anxiety. The study of Hasan and Khan [34] confirms that, lack of access to computers and internet technology, as well as a lack of technical skills, can lead to anxiety. Bączek, et al., [35] establish that, resource affordability and availability e.g., smartphones, computers, etc. are one of the factors that influence online learning, which may also influence the anxiety of a student.

### Table 4. Summary Table on Anxiety and Coping Strategies During Covid-19 Pandemic

<table>
<thead>
<tr>
<th>Indicators</th>
<th>WM</th>
<th>VI</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Anxiety</td>
<td>3.13</td>
<td>Often</td>
<td>1</td>
</tr>
<tr>
<td>2. Coping Strategies</td>
<td>3.10</td>
<td>Often</td>
<td>2</td>
</tr>
<tr>
<td>Composite Mean</td>
<td>3.12</td>
<td>Often</td>
<td></td>
</tr>
</tbody>
</table>

Legend: 3.50 – 4.00 = Always; 2.50 – 3.49 = Often; 1.50 – 2.49 = Sometimes; 1.00 – 1.49 = Never

As shown in table 4, the indicators were rated by the respondents as often with composite mean of 3.12. In anxiety, according to the study of Pragholapati [36] , COVID-19 affects mental health not only in China, where it was first discovered, but also in other parts of the world. As anxiety is a frame of consciousness marked by tense emotions, anxious thoughts, and physical changes [37].

For the coping strategies, every person each has their own coping strategies, but as shown in the study their strategies focus on following the safety health protocols, doing relaxation activities such as engaging in sports and music as well as going to places with strong internet connection. The respondents understand that adhering to safety precautions would assist them in coping with fear after the pandemic of COVID-19. Students used several approaches to deal with stress, according to Kwaah and Essilfie [25], like prayer/meditation and self-indulgent habits such as viewing television or listening to music. Lastly, as mentioned in the article of Pike [38], between 2002 and 2008, a series of studies found that 16 percent of people who did not use the internet said they were suffering from mental health. Utilizing the internet allows you to keep in contact with relatives and even form groups that would help you in your problems which otherwise are unlikely. Each of us have their own ways of coping, but in the case of maritime students, the above-mentioned indicators are common among them.
Table 5 presents the responses on anxiety during covid-19 pandemic and coping strategies during COVID-19 pandemic when grouped according to profile. There was no discernible gap since all computed p-values were greater than 0.05. This implies that the responses do not vary significantly. The profile variables mentioned do not have a significant effect on the anxiety and coping strategies of maritime students. This is not surprising that when respondents are grouped according to profile variables as the researchers make sure that there are equal number of respondents grouped according to profile, because the main features of the target population that the researchers used to address their research question are known as inclusion criteria. Every person regardless of age, gender, status suffers mentally because of their anxiety. Jobs, finances, family life, well-being, and other essential issues that require a person's attention have become the focus of anxiety.

Demographic, clinical, and regional features are often used as inclusion criteria [39]. Furthermore, the results were anticipated as the researchers used Random sampling. According to McLeod [40], it is a probabilistic sampling technique in which each part of the target group has an equal likelihood of being selected. On the other hand, respondents play a unique position in the research since their responses are not only important in general, but their perspectives are critical to the study's outcome and debate.

Table 6
Proposed Plan of Action to Minimize the Anxiety Experienced by the Maritime Students

<table>
<thead>
<tr>
<th>Key Result Area</th>
<th>Activities/Strategies</th>
<th>Persons Involved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objectives to lessen the anxiety of Maritime Students in terms of:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Health</td>
<td>1. Follow IATF standards by avoiding family gathering, hanging out with friends and minimizing leaving their house. 2. Conduct e-sports competition on a monthly basis to relieve stress and boost student’s mental fortitude. 3. Require all students of the institution to attend a webinar about Safety Protocols during COVID-19 Pandemic. 4. Posting of infographic materials about safety practices during COVID-19 Pandemic on the Page of LIMA and Council.</td>
<td>- Dean of LIMA  - Faculty &amp; staff  - Resource Speaker  - Student Organizations  - Students  - Family Members</td>
</tr>
<tr>
<td>B. Education</td>
<td>1. Engage more students into group activities that will enhance their teamwork such as open forums after discussions. 2. Provide visual aids such as presentations, documents and video recordings of the discussion for the better understanding of the students. 3. Hold a peer teaching session for the major subjects especially before examination week. 4. Avoid giving tasks and homework to be done on weekends and holidays to avoid pressure on students. 5. Provide a rule where in synchronous meetings are only allowed once a week per course and meetings are held at least 30 percent of the course time</td>
<td>- Dean of LIMA  - Department Heads  - Faculty Members  - Students</td>
</tr>
<tr>
<td>C. Finances</td>
<td>1. Conduct a meeting with the LPU Management to discuss deduction of student fees especially those that are not being used during this online learning. (e.g., Library &amp; Dental Fee) 2. Utilized alternative meeting conference that uses minimal data usage such as discord and skype. 3. Create a program named “Share-A-Load Project” that will provide free monthly load for the economically deprived students of LIMA.</td>
<td>- Resource Speaker  - Dean of LIMA  - LPU Management  - Department Heads  - LIMA Faculty  - Students</td>
</tr>
</tbody>
</table>
CONCLUSION AND RECOMMENDATION
Most of the respondents are enrolled in Bachelor of Science in Marine Transportation ranging from 19-21 years of age, living in the urban area with a family monthly income of twenty thousand (20,000) and below. Health, education, and financial expenses are factors affecting anxiety while following health protocols and doing relaxation activities are the coping strategies of maritime students during COVID-19 pandemic. When respondents are classified according to profile variables, there is no discernible variation in their responses. A plan of action was proposed to lessen the anxiety experienced by maritime students during COVID-19 pandemic.

Lyceum International Maritime Academy may conduct monthly online counseling for the students of LIMA concerning their mental health and views about the COVID-19 Pandemic. They may conduct a student and professor one-on-one assessment to properly raise their concerns and ideas. They may also provide e-book for each course that focuses on the major subject. Lyceum of the Philippines University – Batangas may organize a Financial Literacy Program. This study may be used by future researchers as a reference and source of information for their study. And, the plan of action may be evaluated and tabled for implementation.

REFERENCES


