

Anxiety Level of Hospital-Based Medical Technologists in Bulacan, Philippines: COVID-19 Pandemic

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Abstract:

Context: The outbreak of COVID-19 or the 2019 Novel Coronavirus Disease caused sizeable public health problems and caused psychological difficulties. Pandemic can lead to a high level of anxiety which is the usual response to any stressful situation. Anxiety is a normal emotional reaction to stress or life’s pressure that alerts a person from dangerous situations. However, due to the sudden change in people’s day-to-day lives brought by the COVID-19 Pandemic, it came with additional worries for the employees, affecting productivity and mental health.

Aims: To determine the anxiety level of the Registered Medical Technologists working in private and public hospital-based laboratories in the City of Malolos, Bulacan during the COVID-19 Pandemic.

Methods: The researchers used an online survey questionnaire on the anxiety level consisting of 21-items multiple-choice self-report inventory with a 4-point Likert scale. The obtained overall sum of the 21-items corresponds with an interpretation. Through the obtained results, anxiety level of registered medical technologists who are working in hospital-based laboratories in the City of Malolos Bulacan during the COVID-19 Pandemic were determined.

Results: No significant difference are found between the gender and anxiety level and, also between age group and anxiety level of the Registered Medical Technologists working in hospital-based laboratories in the City of Malolos Bulacan during the COVID-19 Pandemic. And, there was a significant difference between the anxiety levels of Registered Medical Technologists working in private and public hospital-based laboratories in the City of Malolos Bulacan during the COVID-19 Pandemic.

Conclusions: Majority of the Registered Medical Technologists working in hospital-based laboratories located in the City of Malolos Bulacan during the COVID-19 Pandemic has low anxiety level.

Keywords: Anxiety, Medical technologists, COVID-19, Pandemic

I. INTRODUCTION

Anxiety is the most common form of psychoneurosis occurring among individuals possessing above average intelligence. It is a normal reaction to stress and alerts an individual to a potentially dangerous situations (Bhargava, 2020). In small doses, stress and anxiety is a normal part of neurological functioning. It can help in handling difficult situations more effectively and perform better. But when these feelings become persistent or overwhelming, anxiety becomes detrimental (Howell, 2019).

There are various anxiety symptoms that most people with anxiety experienced, including physical and emotional distress such as panicky breathing, heart pounding chest, trouble sleeping and loops of worries. In cases of anxiety, the feeling of fear would be all the time, and having anxiety disorders, one may also suffer from depression. It is believed that anxiety and depression stem from the same biological vulnerability, so it often goes hand-in-hand (Coltrera, 2018; Holland, 2020; Smith et al., 2020).

The sudden change in people's day-to-day lives brought by COVID-19 Pandemic, people faced uncertainty of everything adding the conditions within the health care facilities, it induced and further induce a considerable degree of fear, worry, and concern in the population at large and among certain groups in particular, such as older adults, care providers, and people with underlying health conditions (World Health Organization, 2020).

In the Philippines, the mental illness is the third most prevalent form of morbidity, there are around 88 cases of mental health problems for every 100,000 Filipinos (Malindog-Uy, 2020). Nonetheless, in this time of COVID-19 Pandemic, the front liners including Medical Technologists would experience anxiety attacks and may have a certain level of anxiety, particularly in the

workplace that may affect the work performance and productivity.

This study will serve as a legitimate basis regarding the Anxiety Level of Registered Medical Technologists working in hospital-based laboratories in the City of Malolos Bulacan during the COVID-19 Pandemic. The end product of this research may be utilized as a premise regarding the coping strategies that are needed to ensure positive results.

II. MATERIAL AND METHODS

Population and Participants

Malolos, officially the City of Malolos, is a 3rd class component city and capital of the province of Bulacan, Philippines. It has a population of 261,189 people and located in Region III-Bulacan (GPS: 14°50'36"N 120°48'41"E). There are total of 10 hospitals in Malolos, Bulacan wherein a total of 98 Medical Technologists are working.

This study focused mainly on the anxiety level of registered medical technologists working in hospital-based laboratories in the City of Malolos Bulacan during the COVID-19 Pandemic who were randomly picked from the 98 Medical Technologists working in the said laboratories applying the Slovin's Formula with a margin of error of 5%; however, the study does not tackle the medical technologists' past anxieties. Also, this study was solely conducted in the existing nine private hospital-based laboratories and the only one public hospital-based laboratory in the City of Malolos.

Research Instrument

The researchers used Descriptive-Comparative Research Design where a survey questionnaire on anxiety level with a 21-items multiple-choice self-report inventory with a 4-point

Likert scale was used which corresponds with an interpretation. The survey questionnaire consists of Part A this is the respondents' demographic profile and Part B for the anxiety level of registered medical technologists consists of negative statements with four different responses ranging from not at all to severely bothered for 21-items.

Data Gathering

The data were collected using the Beck Anxiety Inventory (BAI) survey questionnaire and with the permission of the respondents, the survey questionnaires were sent through their Facebook account. The researchers retrieved 79 survey questionnaires through google forms from the Registered Medical Technologists working in the hospital-based laboratories in the City of Malolos Bulacan, Philippines during the COVID-19 Pandemic.

Statistical Analysis

The gathered data were further statistically analyzed to identify the anxiety level of registered medical technologists through the frequency determination using the survey questionnaire on anxiety. The outcome of the test conveyed the anxiety levels of registered medical technologists and was tabulated and compared. In addition, the mean, standard deviation and variance formulas were used to compute for the t-test to determine the significant difference between the two variables.

III. RESULTS AND DISCUSSIONS

Based on the Beck Anxiety Inventory (BAI) survey questionnaire, the study showed that 71% of the Registered Medical Technologists working in hospital-based laboratories (Malolos City Philippines) during the Covid-19 Pandemic have low anxiety level which indicates that majority of the Registered Medical Technologists can manage all the possible work load pressure brought by the current situation due to Covid-19 Pandemic but

there are 9% who experienced high level of anxiety with this, it is important to address that there are respondents of this study who manifest a high level of anxiety in which getting stressed out at work happens to everyone, and definitely is perfectly normal but stress that is persistent, irrational, and overwhelming, and impairs daily functioning may indicate an anxiety disorder (Anxiety and Depression Association of America, 2020).

The demographic profile of the respondents was compared with the anxiety level identified in the survey and it showed that within the:

- a. Age Group of 20-30 (75%), 31-40(9%) and 41-60(16%), based on the table below there is no significance difference between the age groups and the anxiety level of the Registered Medical Technologists working in hospital-based laboratories (Malolos City Philippines) during the COVID-19 Pandemic.

Table 1. Summary of Registered Medical Technologists (Age Group)

Age Group	Frequency	Percentage
20-30 years old	59	75%
31-40 years old	7	9%
41 years old and above	13	16%
Total =	79	100%

- b. Sex where majority of the respondents are female (77%), based on the table below there is no significance difference between the sex and the anxiety level of the Registered Medical Technologists working in hospital-based laboratories

(Malolos City Philippines) during the COVID-19 Pandemic.

Table 2. Summary of Registered Medical Technologists (Gender)

Gender	Frequency	Percentage
Male	18	23%
Female	61	77%
Total =	79	100%

- c. Working area whether Private hospital-based laboratories (39%) and a public hospital-based laboratory (51%), based on the table below there is no significance difference between the respondents' working area and the anxiety level of the Registered Medical Technologists working in hospital-based laboratories (Malolos City Philippines) during the COVID-19 Pandemic.

Table 3. Summary of Anxiety level of Private and Public Hospital-based Laboratories

Hospital	n	Percentage
Private hospital-based laboratories	39	39%
Public hospital-based laboratories	40	51%

Table 4. Overall Mean and Standard Deviation of Anxiety level of Private and Public hospital-based Laboratories

Hospital	n	Mean ± SD
Private	39	12.31 ± 8.414
Public	40	20.38 ± 13.126

t value = 3.2603 p value (0.0018) < 0.05

IV. CONCLUSIONS

After a comprehensive analysis of data, the researchers concluded that majority of the registered medical technologists working in hospital-based laboratories in the City of Malolos Bulacan during the COVID-19 Pandemic has a low anxiety level and there is no significant difference when compared to their demographic profile. Furthermore, the authors recommend a wider scope of the study.

Table 5. Anxiety level of Registered Medical Technologists working in hospital-based laboratories in the City of Malolos Bulacan during the COVID-19 Pandemic

Anxiety Level	Frequency	Percent
Low	56	71%
Moderate	16	20%
High	7	9%

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