

Perceived Level of Stress Among Nurses Amid Pandemic

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Abstract

A hospital is often seen as dense with a population from all walks of life, as it is a dwelling place of healthy and ill people. In a short period, COVID-19 has proven to be a fatal disease that has caused serious damage to the health and economy of the Philippines. Stress is a normal response to situational procedures or demands and is part of everyday life. However, chronic stress can lead to mental health problems (Cahm 2020). This study was conducted to explore the perceived level of stress including the stress management of employed nurses at James L. Gordon Memorial Hospital, Olongapo City, during the COVID-19 pandemic. The study is anchored in the Transactional Theory of Stress and Coping, which was introduced by Richard Lazarus and Susan Folkman in 1984. They explained that stress is a product of a transaction between an individual and his or her environment. Based on the findings, the overall results of the respondents' level of stress are low to moderate stress. The most perceived stress of the nurses is physiological stress. Furthermore, it was found that situational controlling and preventive monitoring of conditions such as taking preventive measures is the most used stress management methods by nurses. Furthermore, there are no significant differences between levels of stress when grouped according to profile. Also, there are no significant differences between the respondents' stress management when grouped according to profile.

Keywords: *level of stress, stress management, COVID-19 pandemic, nurses during pandemic*

Introduction

Millions of people stay at home to prevent community transmission, and frontline healthcare workers, especially nurses, are fighting the COVID-19 pandemic. They are putting themselves at high risk in the battle against COVID-2019. Many of them have fallen ill with COVID-19, and many of them are quarantined to prevent spreading it. Nurses have always played an important role in infection prevention, infection control, isolation, containment, and public health (Graeme, 2020). When nurses are exposed to working environments with high job demands and low resources, higher job stress, and greater physical and psychological stress symptoms may adversely affect health and well-being (Malinauskiene, 2011).

In late April, the International Council of Nurses reported that "there is strong evidence that nurses are experiencing unprecedented levels of stress, "going on to say that nurses are at "high risk for full-blown stress response syndromes, anxiety, depression, post-traumatic stress disorder, chronic illness, and burnout." Impossible workloads, the fear of exposure to COVID-19, and

risking their health and families. Lack of childcare has also been a problem for nurses, along with financial pressures, long shifts with little to eat or drink, personal protective equipment shortages, and deaths of patients and colleagues, all of which are contributing to nurses' poorer mental health. (Marsat, 2020).

The emergence of COVID-19 exerted unprecedented pressure on the country's healthcare system and presented various challenges to its nursing workforce, potentially affecting nurses' work performance and mental health and even putting their lives at risk (Lv et al., 2020; Maben & Bridges, 2020)

When stress becomes overwhelming and prolonged, the risks for mental health problems and medical problems increase. Long-term stress increases the risk of mental health problems (Cahm, 2020). Life stress is strongly associated with poor mental health (Cohen et al., 2007; Slavich et al., 2010). Not all people who experience stress experience impaired mental health. However, there is evidence that chronic stress in daily life is a better predictor of mental health and well-being (Newnham et al., 2014).

This study determined the perceived level of stress and stress management of nurses amid COVID 19 pandemic.

Statement of the Problem

Specifically, the study sought to answer the following questions:

1. How may the profile of the respondents be described in terms of:
 - 1.1. age;
 - 1.2. sex;
 - 1.3. civil status;
 - 1.4. years of experience;
 - 1.5. highest educational attainment and
 - 1.6. area of assignment?
2. What is the level of stress as perceived by the respondents amid the COVID-19 Pandemic in terms of:
 - 2.1. Physiological;
 - 2.2. emotional;
 - 2.3. psychological and
 - 2.4. spiritual?
3. What are the stress managements as perceived by the respondents amid the COVID-19 Pandemic in terms of:
 - 3.1. Situational controlling and preventing monitoring of conditions;
 - 3.2. psychosocial strategy;
 - 3.3. self-controlling;
 - 3.4. avoidance and escape the situation;
 - 3.5. spiritual coping and
 - 3.6. emotional-focused strategy?
4. Is there a significant difference between the levels of stress as perceived by the respondents when grouped according to their profile?

5. Is there a significant difference between the stress management used by the respondents when grouped according to their profile?

Methodology

Research Design

This research used descriptive quantitative research design. Quantitative research according to Bhandari (2021) is the process of collecting and analyzing numerical data. It can be used to find patterns and averages, make predictions, test causal relationships, and generalize results to wider populations.

Sampling

The study focused on forty-five (45) nurses assigned from the different areas of James L. Gordon Memorial Hospital (JLGMH) in Olongapo, Zambales. Out of the 45 respondents, 34 were female and 11 were male.

Instrumentation

In this study, survey-questionnaire through Google form was the main instrument used in gathering data. The online questionnaire contains 3 different parts. The first part deals with the profile of the respondents such as age, sex, civil status, years of experience, and area of assignment. The second part of the checklist was adapted from the study *Health Worker's Perception Survey on COVID 19 Knowledge, Perception, and Practice Survey of health workers in Eight Provinces of Afghanistan* by Raghavan, Jabbarkhail, and Ahmady (2020) for determining the perceived degree of stress of nurses.

Pilot study was conducted among 10 nurses of hospital X and was validated by Cronbach's Alpha Reliability test. Cronbach's Alpha is a measure of internal consistency, that is, how closely related a set of items are as a group. It is considered to be a measure of scale reliability.

An approval was sought to conduct the study from the Chief of Hospital. The questionnaires via google forms were provided to the respondents through Facebook Messenger. Secured consent was provided and participation was voluntary.

Statistical Treatment of Data

All data gathered were organized and processed through the Statistical Package for the Social Sciences (SPSS), it is a computer program used for statistical analysis.

Frequency and percentage distribution was used for profiling. A frequency distribution is a tabular representation of a survey data set used to organize and summarize the data. Specifically, it is a list of quantitative values that a variable takes in a data set and the associated number of times each value occurs (frequencies).

T test was used to compare the means of 2 groups according to their profiles. This determined if there is a significant difference when comparing 2 independent groups. The type of T- test used is paired and two tailed T- test as the group came from a single population only and only

determined the difference of those 2 groups. A larger t-value shows that the difference between group means is greater than the pooled standard error, indicating a more significant difference between the groups (Bevans R. December 14, 2020).

ANOVA was utilized to figure out if the null hypothesis is accepted or rejected. The one-way ANOVA is used to compare two means from two independent (unrelated) groups using the F-distribution. The null hypothesis for the test is that the two means are equal. Therefore, a significant result means that the two means are unequal (Glen S. 2021).

The questionnaire is calculated with the following scoring:

Score	Interpretation
4	Always
3	Often
2	Sometime
1	Seldom
0	Never

And is interpreted by:

Total Score	Interpretation
76-100	Very high level of stress
51-75	Moderate to high level of stress
26-50	Low to moderate level of stress
0-25	Great stress shape

Results and Discussion

Demographic Profile of the Respondents

Table 1 shows that among 45 respondents the majority are female that represent 34 (75.6%) of the respondents, and 11 (24.4%) are male. U.S. Bureau of Labor Statistics for 2008 indicate that 90 percent of registered nurses (RNs) are female. While it is generally accepted that female nurses can take care of almost any patient (with some religious beliefs creating exceptions), such is not the case with male nurses. (Ulrich, 2010) Males who are practicing nursing are very few. Nursing continues to be seen as a female dominant position especially by male students despite the increasing numbers of men in nursing. Having physical power was seen as a reason for male students to occupy administrative positions (Akansel, 2021).

Table 1
Frequency and Percentage Distribution of Respondents According to Sex

Sex	Frequency	Percentage
Female	34	75.6
Male	11	24.4
Total	45	100

The table 2 shows that among 45 respondents, most of them belongs at the age of 33-43 years old that represent 22 or 48.8% of the respondents, the least age is at the range of 55-65 years of age that represent 1 or 2.2%. According to AACN, the average age of the nursing workforce is 30-50 years old, about 1 million RNs are older than 50, meaning about one-third of the nation's workforce will be nearing retirement age in 10 to 15 years. At the same time, millennials (born between 1982 and 2000) are expected to dominate the nursing workforce by 2030 (Hunter, 2021).

Table 2
Frequency and Percentage Distribution of Respondents According to Age

Age	Frequency	Percentage
33-43	22	48.8
22-32	18	40
44-54	4	8.9
55-65	1	2.2
Total	45	100

The table 3 shows that among 45 respondents, most of them are married with 26 (57.78%), and followed by single status with 19 (42.22%). Majority of the respondents are at the age of 33-43, and it is between the stage of young adulthood and middle adulthood based of Erik Erikson stages of development. These are the stage wherein an individual establishes intimate relationship and reinvest in work and family commitments (Erb et al., 2017).

Table 3
Frequency and Percentage Distribution According to Civil Status

Civil Status	Frequency	Percentage
Married	24	53.4
Single	21	46.6
Total	45	100

The table 4 shows that most of the respondents have 11-15 years of experience (35.6%). The least year of experience are nurses having an experience of 16 years above (17.7%). Nurses were more likely to meet expectations as years of experience increased a similar trend was not seen for diploma nurses. Controlling for years of experience, new graduates were less likely to meet expectations compared with nurses with more than 10years experience. Patient safety may be compromised if a nurse cannot provide clinically competent care (Fero, et al., 2019).

Table 4
Frequency Distribution According to Years of Experience as a Nurse

Years of Experience as a Nurse	Frequency	Percentage
11-15 years	16	35.6
1-5 years	12	26.7
6-10 years	9	20
16 years above	8	17.7
Total	45	100

The table 5 shows that most of respondents are from COVID Triage Isolation Area with a frequency of 10 (22.2%) and the least respondent were from Out-Patient Department (OPD), Operating Room (OR) and delivery room, with a frequency of 1 (2.22%). Nurses have critical roles and responsibilities during the COVID-19 pandemic. They will continue to be at the front line of patient care in hospitals and actively involved with evaluation and monitoring in the community. Nurses have to ensure that all patients acquire personalized, high-quality services irrespective of their infectious condition. They will also engage in planning for anticipated COVID-19–related outbreaks, which increase the demand for nursing and healthcare services that might overload systems (Fawaz, Anshasi & Samaha, 2020).

Table 5
Frequency Distribution of Current Area of Assignment

Current Area of Assignment	Frequency	Percentage
COVID Triage Isolation Area	10	22.2
Dialysis	6	13.3
Emergency Room	5	11.1
Medicine ward	5	11.1
MAB isolation	4	8.9
Pedia Ward	3	6.7
OB	2	4.4
Private Room	2	4.4
Recovery room	2	4.4
Surgery ward	2	4.4
Interventional Radiology	1	2.2
OPD	1	2.2
OR	1	2.2
Delivery room	1	2.2
Total	45	100

Level of Stress

The table 6 shows the Frequency and Percentage Distribution of Level of Stress of Nurses. The majority of nurses that participated in the study which is 66.67%, falls into the category of low to moderate level of stress. An additional 28.89% falls under the category of great stress shape,

4.44% under the moderate to high level of stress, and 0% under the very high level of stress. Each nurse's cognitive appraisal, perceptions, and interpretations, gives meaning to events and determines whether events in the clinical setting are viewed as threatening or positive. Personality traits also influence the stress equation because what may be overtaxing to one nurse may be exhilarating to another. With that, most nurses are capable to cope up with stress and report low to moderate level of stress only.

Most nurses can cope with stress for short periods and they are able to modify the stress in a positive way by the use of appropriate stress management skills. (Sharma, et al. 2014). Nurses choose to face the adversities of COVID-19 because they can personify the value of selfless concern to others and teamwork attached to their jobs as care providers (Sun et al., 2020).

Stress that is brought by this pandemic affects the health of nurses and sometimes even the outcomes of patients and patient care. That's the reason why nurses are very good and capable of handling their own stress because they know the stress will affect how they will provide patient care. (American Nurses Association, 2020). Lastly, Nurses thrive on stress, and it enables them to do the best possible job. They just need to make sure that they balance positive and negative stress as the former keeps them motivated and productive. They also handle stress by focusing on the most important thing: the care of the patient. They owe it to their patients to stay calm and focused on them. Stress is acknowledged as an actuality. The nurse acknowledges how stress affects them on the job and how they rise to the challenge of dealing with stress (Doyle, 2021).

Table 6
Frequency and Percentage Distribution of Level of Stress of Nurses

Score	Interpretation of Level of Stress	Frequency	Percentage
26-50	Low to Moderate Level of Stress	30	66.67
0-25	Great Stress-Shape	13	28.89
51-75	Moderate to High Level of Stress	2	4.44
75-100	Very High Level of Stress	0	0
Total		45	100

Table 7 shows the perceived stress level of the respondents. As presented, item number 1 under Physiological is the most perceived level of stress of nurses with the highest weighted mean of 2.50, and the least perceived level of stress is item number 9 under Psychological with a weighted mean of 0.40. The overall weighted mean is 1.30, which falls under the descriptive rating of Seldom.

Physical exhaustion was described as another challenge faced by the nurses. On the one hand, the unbearable heaviness of personal protective gear and the shortage of personal protective equipment made nurses refrain from eating, drinking, and using the bathroom due to the inability to change their gear during their shifts. In a vicious cycle, this had caused further physical exhaustion due to complications such as dehydration, urinary tract infection, and constipation.

Furthermore, prolonged care for COVID-19 patients was associated with the incidence of complications such as physical tiredness, spots, and skin damage, especially on facial skin, due to the constant use of respirators.

In a study by Kim, nurses described heavy perspiration due to unbearable body heat caused by personal protective gear and fog on protective goggles caused by respirators as the main causes of physical tiredness (Kim, 2018). In a study by San et al., nurses, providing care for COVID-19 patients, felt severe physical tiredness and discomfort due to the spread of the disease (Sun et al., 2020).

Table 7
Level of Stress as Perceived by the Respondents

Indicators	Weighted Mean	Descriptive Rating
Physiological		
1. I feel tired.	2.50	Sometime
2. My heart races and I find myself breathing rapidly.	1.60	Seldom
3. I get headaches.	1.98	Seldom
4. I eat too much or too little.	2.40	Sometime
5. I have sleeping problems (e.g., trouble falling asleep, trouble staying asleep, trouble waking up, nightmares, etc.).	1.90	Seldom
6. I have back and neck pain, or other chronic tension-linked pain.	2.10	Sometime
7. I have stomach upsets (e.g., nausea, vomiting, diarrhea, constipation, gas).	1.20	Seldom
8. My work performance has declined and I have trouble completing things.	1	Never
Average Weighted Mean	1.84	Seldom
Emotional		
1. I find it very hard to relax or “wind-down.”	1.60	Seldom
2. I feel emotionally numb.	1	Never
3. I have mood-swings and feel over emotional.	1.60	Seldom
4. I am withdrawn and feel distant and cut off from other people.	1.20	Seldom
Average Weighted Mean	1.35	Seldom
Psychological		
1. I find it hard to make decisions	1.10	Seldom
2. I think about my problems over and over again during the day.	1.30	Seldom
3. I have trouble thinking clearly.	1	Never
4. I find myself taking unnecessary risks or engaging in behavior hazardous to health and/or safety.	0.60	Never
5. I use caffeine or nicotine more than usual.	1.20	Seldom
	0.50	Never

6. I have nervous habits (e.g., biting my nails, grinding my teeth, fidgeting, pacing, etc.).	1.40	Seldom
7. I forget little things (e.g., where I put my keys, people's name, details discussed during the last work meeting).		
8. I find it hard to concentrate.	1.30	Seldom
9. I use alcohol and/or other drugs to try and help cope.	0.40	Never
10. I am irritable and easy annoyed.	1.30	Seldom
Average Weighted Mean	1.01	Seldom
Spiritual		
1. I have trouble feeling hopeful.	0.90	Never
2. I feel overwhelmed and helpless.	0.80	Never
3. I have trouble feeling that life is meaningful.	0.60	Never
Average Weighted Mean	.77	Never
Overall Weighted Mean	1.30	Seldom

Stress Management

The table 8 shows the stress management as perceived by the respondents. As presented, item number 1 under Situational Controlling and Preventive Monitoring of Conditions is the most used stress management of the nurses with a weighted mean of 3.67, and the least used stress management was seeking information about mental health with a weighted mean of 2. The computed overall weighted mean was 2.996.

Hygiene measures aims to limit the risk of spreading the virus and direct or indirect contamination of others. Recommendations comprise washing hands for at least 20 seconds, sneezing in elbow, avoiding touching surfaces, contactless payments (avoid exchanging money), wearing PPEs such as masks, and eye and hand protections (de Bruin et al, 2020). Furthermore, in the wake of the COVID-19 pandemic, PPE plays a significant role, with face masks and gloves being the most essential. Doctors, nurses, and other frontline healthcare responders are using them to minimize the risk of contaminated contact or droplet exposure (Mahmood, Crimbly, Khan, Choudry, and Mehwish, 2020). Moreover, considering the challenges faced in a pandemic, one of the factors that helps nurses show their best performance is their resilience or ability to maintain healthy and sustained psychological function despite exposure to severe stressors (Afshari, 2021).

Table 8
Stress Management as Perceived by the Respondents

Indicators	Weighted Mean	Descriptive Rating
Situational Controlling and Preventive Monitoring of Conditions		
1. Taking preventive measures (handwashing & wearing PPEs).	3.67	Every time
2. Expressing concerns and needs to supervisors.		
3. Seeking information about mental health.	2.71	Often
4. Actively learning about COVID-19.	2	Rarely
5. Knowing how to break a problem into smaller, more manageable parts.	3.4	Every time
	3.27	Often
Average Weighted Mean	3.01	Often
Psychosocial Strategy		
1. Chatting with family and friends.	3.53	Every time
2. Seeking psychosocial support from colleagues.	2.93	Often
3. Checking in with other colleagues to discuss work experience.	3.07	Often
4. Engaging in work in teams with other colleagues		
5. Building satisfactory relationships with supervisors and colleagues.	3.22	Often
	3.16	Often
Average Weighted Mean	3.18	Often
Self-Controlling		
1. Adjusting attitude and facing COVID19.	3.38	Every time
2. Doing self-care, exercising, healthy diet, and proper sleep.	3.11	Often
3. Practicing relaxation methods (yoga, meditation and deep breathing exercises).	2.6	Often
4. Transforming negative thoughts into positive thoughts.	3.12	Often
5. Keeping your feelings to yourself from interfering with another thing too much.	2.91	Often
Average Weighted Mean	3.02	Often
Avoidance and Escape the Situation		
1. Doing recreational activities.	2.89	Often
2. Keeping myself busy to refrain from thinking about the pandemic.	2.98	Often
3. Drinking alcohol/caffeine when stressed.	3.11	Often
4. Doing leisure activities.	2.84	Often
5. Limiting myself watching news related to COVID-19.	2.4	Rarely
Average Weighted Mean	2.84	Often
Spiritual Coping		
1. Doing meditation/prayer to reduce stress.	3.13	Often
2. Turn to prayer and spiritual thoughts.	3.1	Often
3. Maintaining strong relationship with God.	3.4	Often
4. Establishing and maintaining deep valuable relationships with other people, needing moral values and displaying love and empathy and compassion.	3.36	Every time
5. Pursuit of goal, sense and meaning and looking for internal peace and harmony.	2.97	Often
Average Weighted Mean	3.19	Often

Emotional-focused Strategy

1. Releasing emotions by crying and venting out frustrations.	2.64	Often
2. Taking time-outs when feeling too much emotion and stress.	2.75	Often
3. Writing down my emotions and experiences on a journal.	2.68	Often
4. Forgiving the feeling of injustice and in fairness.	2.55	Often
5. Accepting things you cannot change.	3	Often
Average Weighted Mean	2.72	Often
Overall Weighted Mean	2.996	Often

Table 9 shows the computed P value for the T-test result of stress level as perceived by the respondents when grouped according to sex is 0.83, and all indicators are greater than 0.05 alpha level of significance. Therefore, the decision is to accept the null hypothesis indicating that there is no significant difference between the Level of Stress as Perceived by the Respondents when Grouped According to Sex. A study about Occupational stress and its related demographic factors among Iranian CCU Nurses by Faraji, Karimi, Azizi, et al, (2019) They found that there was no relationship between the mean of occupational stress of nurses and their sex. For them, Occupational stress is a transgender phenomenon and can affect any person, whether male or female.

Table 9
T-test results for Independent Weighted Mean of Level of Stress as Perceived by the Respondents when Grouped According to Sex

	Independent Weighted Mean	Computed P Value	Tabular t critical value	Decision	
Physiological	Male	15.27	0.72	2.14	Accept ho
	Female	49.44			
Emotional	Male	5.55	1	2.12	Accept ho
	Female	5.41			
Psychological	Male	10.18	0.99	2.09	Accept ho
	Female	10.21			
Spiritual	Male	2.55	0.90	2.12	Accept ho
	Female	2.35			
	Grand Values	0.83	2.09	Accept ho	

Table 10 shows the computed P value for the T-test result of stress level as perceived by the respondents when grouped according to the civil status which is 0.57, and all indicators are greater than the alpha level of 0.05. Therefore, the decision is to accept the null hypothesis indicating that there is no significant difference between the perceived level of stress when grouped according to civil status.

The marital status is related to the perception of social support. Perhaps, in the work context, the perceived social support of having a stable partner is not a factor influencing stress. Nursing professionals seek support more from co-workers or spiritual beliefs than from personal relationships (Akbari & Hossaini, 2018). This finding is also supported by the study of (Faraji et al., 2019) with regard to marital status, he has not observed an association with perceived stress;

in fact, there were no differences between those who were in a couple relationship and those who were not. On the other hand, this data is not in agreement with previous studies on epidemic which highlighted that being single was predictive of higher psychological distress among hospital staff. (Babore et al., 2020).

Table 10
*T-test results for Independent Weighted Mean of Level of Stress as Perceived
 by the Respondents when Grouped According to Civil Status*

		Independent Weighted Mean	Computed P Value	Tabular t critical value	Decision
Physiological	Single	13.90	0.33	2.02	Accept ho
	Married	15.5			
Emotional	Single	5.33	0.44	2.02	Accept ho
	Married	5.96			
Psychological	Single	9.90	0.89	2.02	Accept ho
	Married	9.67			
Spiritual	Single	2.33	0.88	2.02	Accept ho
	Married	2.46			
Grand Values			0.57	2.02	Accept ho

Table 11 shows the ANOVA test result of stress level as perceived by the respondents when grouped by Age, that among all variables, only Psychological got a P value of 0.01 which is less than 0.05 significance level, indicating that there is a significant difference. The other variables given are greater than the significance level, therefore the null hypothesis is accepted. According to the study conducted by (Galehdar N, 2020) it was shown that the nurses experienced a great deal of psychological problems while providing care services for patients with COVID-19. In line with the findings of this study, many other studies have reported high levels of psychological distress among nurses during outbreaks. Psychological and health-related stressors often occur in advanced ages, but little is known about perceived stress in adults aged 65 and over.

Furthermore, Ezenwaji et al (2019) stated that age did not make significant contributions to the prediction of work-related stress among the nurses. (Ezenwaji et al., 2019). This finding also conforms to the study of Pasay-an (2020) that age of frontline nurses were not determinants of perceived infectability, germ aversion or stress. This indicates that, regardless of these variables, the frontline nurses recognized the possible sources of contracting the disease, fostered avoidance behavior, and reduced the possibility of contracting infection, thus perceiving less stress.

Table 11
*ANOVA Test Result of Level of Stress as Perceived by the Respondents
 when Grouped According to Age*

	Independent Weighted Mean	Computed P Value	Tabular F critical value	Decision
Physiological	20-32 years old	16.11	2.83	Accept ho
	33-43 years old	14.39		
	44-54 years old	14.25		
	55-65 years old	11		
Emotional	20-32 years old	6.06	2.83	Accept ho
	33-43 years old	5.61		
	44-54 years old	5.75		
	55-65 years old	2		
Psychological	20-32 years old	13.61	2.83	Reject ho
	33-43 years old	8.91		
	44-54 years old	7		
	55-65 years old	2		
Spiritual	20-32 years old	2.17	2.83	Accept ho
	33-43 years old	3.74		
	44-54 years old	1.5		
	55-65 years old	0		
Grand Values		0.25	2.83	Accept ho

Table 12 shows the computed P value for the ANOVA test result of stress level as perceived by the respondents when grouped according to years of experience is 0.58, and all indicators are greater than 0.05 alpha level of significance. Therefore, the decision is to accept the null hypothesis indicating that there is no significant difference between the Level of Stress as Perceived by the Respondents when Group According to Years of experience.

Nurses with higher number of years of nursing experience still report level of stress along with nurses who have lesser ones. This is due to variety of nursing responsibilities and unexpected circumstances that happen in the clinical setting like deaths, dispute with the authorities and issues with the patient's relatives. Occasionally, expert nurses still do not recognize unexpected clinical responses and other potential problems before they occur which happens with the novice nurses as well. In addition, it was also found out that when workload exceeds the capability of nurses to accomplish it, regardless of the number of years of their nursing experience, they still encounter stress. (McHugh & Lake, 2017).

Table 12
*ANOVA Test Result of Level of Stress as Perceived by the Respondents
 when Grouped According to Years of Experience*

	Independent Weighted Mean	Computed P Value	Tabular F critical value	Decision	
Physiological	1-5 years	14.08	0.84	2.83	Accept ho
	6-10 years	15.22			
	11-15 years	15.59			
	16 years above	13.67			
Emotional	1-5 years	5.77	0.34	2.83	Accept ho
	6-10 years	6.44			
	11-15 years	6.12			
	16 years above	4			
Psychological	1-5 years	11.85	0.10	2.83	Accept ho
	6-10 years	12.67			
	11-15 years	9.76			
	16 years above	6.5			
Spiritual	1-5 years	2.23	0.22	2.83	Accept ho
	6-10 years	2.56			
	11-15 years	3.18			
	16 years above	1.33			
	Grand Values	0.58	2.83	Accept ho	

Table 13 shows the computed P value for the ANOVA test result of stress level as perceived by the respondents when grouped according to the area of assignment is 0.08, and all indicators are greater than 0.05 alpha level of significance. Therefore, the decision is to accept the null hypothesis indicating that there is no significant difference between the perceived level of stress by the respondents when grouped according area of assignment.

A study by Aboads (2017) states that there were no significant differences in perceived job-related stress due to gender, age and working department. This is further support by the study of Akbar saying, assigned areas does not affect nurses' level of stress, given the unique nature of stressful events in the nurses' work environment and social context in which nurse's work, nurses seemed to be adopting, they attempt to calm the situation in a situational management format, which emerges in various strategies.

Table 13
*ANOVA Test Result of Level of Stress as Perceived by the Respondents
 when Grouped According to Area of Assignment*

	Independent Weighted Mean	Computed P Value	Tabular F critical value	Decision	
Physiological	Covid Triage	16.75	0.54	2.05	Accept ho
	Isolation Area				
	Medicine Ward	17			
	Dialysis	11.4			
	Pediatric Ward	15.33			
	Surgery Ward	19.5			
	MAB Isolation	14.5			
	Emergency	11			
	Room				
	Private Room	17.5			
	Recovery	9			
	Room				
	OB	15			
	Delivery Room	12			
	Operating	20			
Room					
OPD	14				
Radiology	11				
Emotional	Covid Triage	5.83	0.09	2.05	Accept ho
	Isolation Area				
	Medicine Ward	5.2			
	Dialysis	3.6			
	Pediatric Ward	6.67			
	Surgery Ward	8.5			
	MAB Isolation	5.25			
	Emergency	4.75			
	Room				
	Private Room	6.5			
	Recovery	1.5			
	Room				
	OB	6.5			
	Delivery Room	4			
	Operating	11			
Room					
OPD	7				
Radiology	5				
Psychological	Covid Triage	11.75	0.41	2.05	Accept ho
	Isolation Area				

	Medicine Ward	10.2			
	Dialysis	7.8			
	Pediatric Ward	15.33			
	Surgery Ward	14.5			
	MAB Isolation	10			
	Emergency	7			
	Room				
	Private Room	11			
	Recovery	2.5			
	Room				
	OB	6.5			
	Delivery Room	7			
	Operating	14			
	Room				
	OPD	16			
	Radiology	11			
Spiritual	Covid Triage	2.67	0.84	2.06	Accept ho
	Isolation Area				
	Medicine Ward	2			
	Dialysis	1.4			
	Pediatric Ward	3.33			
	Surgery Ward	4.5			
	MAB Isolation	2.25			
	Emergency	2.5			
	Room				
	Private Room	2.5			
	Recovery	2			
	Room				
	OB	2			
	Delivery Room	0			
	Operating	3			
	Room				
	OPD	5			
	Radiology	2			
	Grand Values		0.08	2.05	Accept ho

Table 14 shows the computed P-value for the T-test result of stress management as perceived by the respondents when grouped according to sex is 0.36, and all indicators are greater than 0.05 alpha significance level. Therefore, the decision is to accept the null hypothesis, indicating that there is no significant difference.

This is the opposite in some studies, such as the study conducted by (Callaghan, P. 2016), which said that females had slightly higher stress management than males. They coped with their stresses by seeking support from friends and colleagues, using different cognitive strategies, and

engaging in leisure activities. In addition, according to APA (2020), Regardless of their sources of stress and the physical and emotional symptoms of stress that men and women report, both groups say they manage their stress in very different ways. In general, though, men and women choose sedentary activities like reading, listening to music, and watching television to manage their stress over healthier behaviors like seeing a mental health professional or exercising.

Table 14
T-test results for Independent Weighted Mean of Stress Management as Perceived by the Respondents when Grouped According to Sex

		Independent Weighted Mean	Computed P Value	Tabular t critical value	Decision
Situational Controlling and Preventive Monitoring of Conditions	Male	16.18	0.06	2.12	Accept ho
	Female	14.5			
Psychosocial Strategy	Male	16.36	0.43	2.12	Accept ho
	Female	15.59			
Self-controlling	Male	16.09	0.18	2.09	Accept ho
	Female	14.94			
Avoidance and Escape the Situation	Male	14.45	0.11	2.13	Accept ho
	Female	12.85			
Spiritual Coping	Male	15.55	0.46	2.13	Accept ho
	Female	16.41			
Emotional-focused Strategy	Male	12.09	0.47	2.14	Accept ho
	Female	12.94			
Grand Values			0.36	2.12	Accept ho

Table 15 shows the computed P value for the T-test result of stress management as perceived by the respondents when grouped according to civil status which is 0.83 which is greater than 0.05 level of significance. Therefore, the decision is to accept the null hypothesis which indicates that there is no significant difference between the stress management when grouped according to civil status. Studies investigating civil status differences over the past two decades have produced contradictory results, with some to indicate no differences, and some suggesting that either married or unmarried nurses experience the same psychological stress (Preston et al., 2019).

Table 15
T-test results for Independent Weighted Mean of Stress Management as Perceived by the Respondents when Grouped According to Civil Status

		Independent Weighted Mean	Computed P Value	Tabular t critical value	Decision
Situational Controlling and Preventive Monitoring of Conditions	Single	15.19	0.58	2.02	Accept ho
	Married	14.7			
Psychosocial Strategy	Single	15.71	0.68	2.02	Accept ho
	Married	16.04			
Self-controlling	Single	14.81	0.39	2.02	Accept ho
	Married	15.46			
Avoidance and Escape the Situation	Single	12.67	0.26	2.02	Accept ho
	Married	13.42			
Spiritual Coping	Single	16.10	0.95	2.02	Accept ho
	Married	16.04			
Emotional-focused Strategy	Single	13.29	0.27	2.02	Accept ho
	Married	12.38			
		Grand Values	0.83	2.02	Accept ho

Table 16 shows the ANOVA test result of stress management as perceived by the respondents when group according to age. The overall computed P value is 0.67, and all indicators are all greater than 0.05 alpha level of significance. Therefore, the decision is to accept the null hypothesis indicating that there is no significant difference between stress management as perceived by the respondents when Group according to age. The results of the study are different from the study of Ofei, Paarima, Barnes and Kwashie (2019) in which they suggested that stress and how to cope cannot be separated from age and aging. Aging essentially comes with experience, proficiency, and exposure, but it also comes with wearing out which is a principal cause of stress. Therefore, coping is better with maturity and experience (Zyga, et al., 2016).

Table 16
ANOVA Test Result of Stress Management as Perceived by the Respondents when Grouped According to Age

		Independent Weighted Mean	Computed P Value	Tabular F critical value	Decision
Situational Controlling and Preventive Monitoring of Conditions	20-32 years old	15.44	0.35	2.83	Accept ho
	33-43 years old	14.17			
	44-54 years old	16.5			
	55-65 years old	15			
Psychosocial Strategy	20-32 years old	15.5	0.74	2.83	Accept ho
	33-43 years old	16.04			
	44-54 years old	17			
	55-65 years old	15			
Self-controlling	20-32 years old	15.61	0.88	2.83	Accept ho
	33-43 years old	15.04			
	44-54 years old	15.25			
	55-65 years old	14			
Avoidance and Escape the Situation	20-32 years old	13.56	0.95	2.83	Accept ho
	33-43 years old	13.43			
	44-54 years old	13.25			
	55-65 years old	12			
Spiritual Coping	20-32 years old	15.83	0.92	2.83	Accept ho
	33-43 years old	16.43			
	44-54 years old	16.25			
	55-65 years old	15			
Emotional-focused Strategy	20-32 years old	13.39	0.36	2.83	Accept ho
	33-43 years old	12.74			
	44-54 years old	11			
	55-65 years old	11			
Grand Values			0.67	2.04	Accept ho

Table 17 shows the computed P value for the ANOVA test result of stress management as perceived by the respondents when grouped according to years of experience. Among all indicators, only Spiritual Coping got a P value of 0.04 which is lesser than the significance level of 0.05, therefore there is a significant difference. The findings are supported by the study of Albaqawi (2018), that the nurses' years of experience and years of working as a nurse is significantly related to the perceived spiritual coping. This is also highlighted by the previous study of Cruz (2018), that the length of experience is influencing the perceived spiritual beliefs and coping. Thus, experience may create spiritual competence.

Additionally, experience in the present hospital is associated with and is a remarkable predictor of the nurses' spiritual care interventions provision. This means that a longer exposure in the spiritual beliefs, the greater spiritual care will be provided for patients. The other variables got a

P value of that is greater than the significance level which indicates that there are no significant differences to them. Baldacchino and Draper (2001) asserted that the use of religion and spirituality gives a sense of support and strength to cope with stressors, and this can have a positive influence on a person's physical, psychological and social health. Furthermore, Laal stated that stress management is not affected by a nurse's years of experience for the reason that stress managements work differently from one nurse to another. Nurses use varieties of ways to control job stressful conditions regarding the circumstances of the situation through appropriate measures within the framework of the professional duties without being affected by their years of experience. Nurses who have longer years of experience deals with the stress differently or even similarly with those with shorter span of experience of being a nurse (Zyga, et al., 2016).

Table 17
ANOVA Test Result of Stress Management as Perceived by the Respondents when Grouped According to Years of Experience

	Independent Weighted Mean	Computed P Value	Tabular F critical value	Decision
Situational Controlling and Preventive Monitoring of Conditions	1-5 years	14.31	2.84	Accept ho
	6-10 years	15.11		
	11-15 years	15.19		
	16 years above	16		
Psychosocial Strategy	1-5 years	15.92	0.10	2.84
	6-10 years	14		
	11-15 years	16.63		
	16 years above	15.67		
Self-controlling	1-5 years	15.15	0.87	2.84
	6-10 years	14.89		
	11-15 years	15.31		
	16 years above	14.33		
Avoidance and Escape the Situation	1-5 years	12	0.14	2.84
	6-10 years	12.89		
	11-15 years	14		
	16 years above	12.5		
Spiritual Coping	1-5 years	16.85	0.04	2.84
	6-10 years	13.44		
	11-15 years	16.75		
	16 years above	15.83		
Emotional-focused Strategy	1-5 years	13.23	0.72	2.84
	6-10 years	12.22		
	11-15 years	13.19		
	16 years above	12.17		
Grand Values		0.40	2.02	Accept ho

Table 18 shows the P value of ANOVA test result of stress management as perceived by the respondents when grouped according to area of assignment is 0.77, and all indicators are greater than 0.05 alpha level of significance. Therefore, null hypothesis is accepted and there is no significant difference between the two.

Nurses experience different stress and come up with different management, assigned areas does not affect how nurses manage their stress, as noted by (Lazarus & Folkman, 2017), stress management is a field-dependent process and are different based on stressors and situations.

Table 18
ANOVA Test Result of Stress Management as Perceived by the Respondents when Grouped According to Area of Assignment

	Independent		Computed	Tabular F	Decision
	Weighted Mean		P Value	critical	
				value	
Situational Controlling and Preventive Monitoring of Conditions	Covid Triage	15.33	0.95	2.05	Accept ho
	Isolation Area				
	Medicine Ward	14.6			
	Dialysis	15.6			
	Pediatric Ward	13.33			
	Surgery Ward	14			
	MAB Isolation	15.5			
	Emergency	13.75			
	Room				
	Private Room	17			
	Recovery	16			
	Room				
	OB	16			
	Delivery Room	17			
Operating	15				
Room					
OPD	13				
Radiology	13				
Psychosocial Strategy	Covid Triage	17.08	0.43	2.05	Accept ho
	Isolation Area				
	Medicine Ward	16.8			
	Dialysis	16.8			
	Pediatric Ward	13			
	Surgery Ward	13.5			
	MAB Isolation	13.5			
	Emergency	14.5			
	Room				
	Private Room	18			

	Recovery Room	15.5			
	OB	15.5			
	Delivery Room	13			
	Operating Room	16			
	OPD	16			
	Radiology	14			
Self-controlling	Covid Triage Isolation Area	15.75	0.74	2.05	Accept ho
	Medicine Ward	13.8			
	Dialysis	15.2			
	Pediatric Ward	14			
	Surgery Ward	12			
	MAB Isolation	14.75			
	Emergency Room	15			
	Private Room	16.5			
	Recovery Room	17.5			
	OB	16.5			
	Delivery Room	12			
	Operating Room	15			
	OPD	16			
	Radiology	15			
Avoidance and Escape the Situation	Covid Triage Isolation Area	13.42	0.86	2.05	Accept ho
	Medicine Ward	13.2			
	Dialysis	14.2			
	Pediatric Ward	11			
	Surgery Ward	11.5			
	MAB Isolation	14			
	Emergency Room	11.75			
	Private Room	14			
	Recovery Room	12.5			
	OB	14			
	Delivery Room	11			
	Operating Room	14			
	OPD	12			
	Radiology	12			

Spiritual Coping	Covid Triage Isolation Area	16.5	0.97	2.05	Accept ho
	Medicine Ward	16.2			
	Dialysis	14.6			
	Pediatric Ward	16			
	Surgery Ward	15			
	MAB Isolation	17.25			
	Emergency Room	14.25			
	Private Room	17			
	Recovery Room	16.5			
	OB	15			
	Delivery Room	15			
	Operating Room	18			
	OPD	15			
	Radiology	20			
	Emotional-focused Strategy	Covid Triage Isolation Area			
Medicine Ward		12.8			
Dialysis		11.4			
Pediatric Ward		12.67			
Surgery Ward		13.5			
MAB Isolation		13.75			
Emergency Room		10.75			
Private Room		13.5			
Recovery Room		14			
OB		12			
Delivery Room		9			
Operating Room		14			
OPD		12			
Radiology		18			
Grand Values			0.77	2.05	Accept ho

Conclusions

Most participants are aged 33 to 43 years, female, married, with 11-15 years of experience, and assigned to the COVID-19- Triage Isolation Area.

Physiological stress, mainly tiredness, is the highest indicator that nurses experience stress. A study said that frontline healthcare workers are at risk of physical and mental consequences

directly as a result of providing care to patients with COVID-19. The study shows that nurses exhibited workload-related stress resulting from caring for infected patients and stress from receiving more patients.

Nurses use effective stress management techniques, thus resulting in low to moderate stress levels. Situational controlling and preventive monitoring of conditions, such as preventive measures, are nurses' most used stress management tools.

Applying a strategy named situational control of conditions, which includes coping methods based on the working field of clinical nurses in which the nurses attempted to control the situation through immediate curative and care measures or using procedures governing the organization as well as personal skills. Greenglass (2002) emphasizes that preventive coping is more prospective and includes efforts to provide public resources that improve the achievement of challenging objectives. In addition, according to WHO (2019), Healthcare workers are required to take additional precautions to protect themselves and prevent transmission in the healthcare setting. Precautions to be implemented by healthcare workers caring for patients with COVID-19 disease include using PPE appropriately; this involves selecting the proper PPE and being trained to put on, remove, and dispose of it. Nurses manage their stress no matter what age group they belong, and stress management is also not affected by sex. Nurses who have longer years of experience deals with the stress differently or even similarly with those with shorter span of experience of being a nurse. In addition, nurses' stress management may vary due to some factors such as funds, time, personal preferences and responsibilities outside the workplace. (Zyga, et al., 2016).

Stress management of nurses are effective to maintain a low to moderate level of stress. According to a study conducted by (Akbar et al., 2017), nurses try to reduce their feeling of stress in nursing work or eliminate the stressful situations by using different strategies and different uses of resources and capacities such as self-reliance (for example using situational control strategy and preventive monitoring), seeking help from others and even spiritual coping. (Situational coping of nurses with job stress may, in some cases, serve a preventive function, as well. The nurses use preventive monitoring strategies, and measures such as on the standby, following up on the position and measures related to the patient's conditions and regaining control. Therefore, nurses using these methods try to stop the events and situations that deprived them of their peace.

In some situations, while stressed out of nursing work and having to deal with requests for assistance, the nurses attempt to exploit consciously the reliable and effective social capacities such as gaining the support of colleagues, or other staff at work to reduce their job stress. However, in some situations to deal with feeling of stress and stressful situations, nurses tried to focus on their control rather than seeking help from others. Through this control, which is carried out, using methods such as the use of recreation and exercise, positive thinking, and self-learning and toleration, the nurses tried to increase their mental, psychological, and physical compliance with the situation that causes imbalance in these dimensions so as to feel relaxed.

Recommendations

Based on the conclusions made, the following recommendations are given.

1. More thorough research on the stress management of nurses, when grouped according to their profile, must be made by future researchers to determine its relationship with the level of stress and stress management of nurses.
2. A greater sample size of respondents is recommended to have greater power to present the nurse population.
3. To maintain and enforce the stress management of nurses and maintain low to moderate levels of stress amid the health pandemic by providing a Spiritual and Psychological Stress Program.

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