What Did Nurses do to Alleviate Stress and Reduce Burnout During the COVID-19 Pandemic?

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**INTRODUCTION**

**Background of the Study**

Healthcare workers, especially nurses working within the healthcare industry, regularly experience high burnout and stress. This stress results from the nature of their work and various factors in their working environment. According to Foureur et al. (2013), multiple nursing work environment elements increase nurses' risk, including increased burnout, lack of coping mechanisms, low motivation, medical and clinical errors, and increased turnover rates. Smith (2014) argues that some of the various factors leading to nurses' burnout and increased stress levels included caring for critically ill patients, managing patient family members, staffing shortages, and failure to practice coping mechanisms. The World Health Organization identified the coronavirus disease in January 2020 to be a Public Health Emergency of International Concern. Later on, in March 2020, the World Health Organization altered the assessment of the COVID-19 outbreak to be a pandemic, meaning the severity of COVID-19 had increased. As COVID-19 infections have continued to grow worldwide, healthcare workers have been at the forefront of the fight against the pandemic. Over time, the protection of frontline health workers' mental well-being, especially nurses, has been identified as imperative for the healthcare workforce's long-term capacity. The COVID-19 pandemic has increasingly highlighted the problems nurses face in their working environment, especially feelings of chronic stress and burnout. The nurses' ability to manage work-related stress and burnout through meditation and physical activity is essential to the patient and the nursing staff members' health.

**Statement of the Problem**

According to García & Calvo (2020), the world pandemic resulting from the effects of COVID-19 disease has led to nurses playing a frontline function in attempting to control the spread and devastation of the virus. According to the World Health Organization (2020), the pandemic has increasingly affected health systems in many countries, pushing most of them to the brink of collapse. As discussed by Fernandez et al. (2020) and Chen et al. (2020), global pandemics lead to significant psychological effects on nurses as they cope with emotional, physical, and cognitive demands resulting from their work and immediate working environment. Nursing professionals' well-being is usually conditioned by the type of work they perform and the availability of the personal resources available in the immediate working environment. Even though several studies in the past have focused on highlighting the challenges faced by nurses in their working environment, the problem has not been discussed in the context of extreme situations such as during outbreaks. The main problem is the idea of the perceived and actual threats among nurses and other healthcare professionals during pandemics and global outbreaks have not been studied in-depth, hence leaving a significant research gap.

**Research Questions**

The proposed research study will be guided by the research questions outlined below;

**Participant Validation**

Participation in this survey is voluntary. It is up to you whether to take part in this study. Proceeding in this anonymous survey will stand as informed consent and once summitted cannot be retracted. Do you agree with this statement? \_\_\_\_\_\_\_\_\_\_\_ (Yes/No)

Are you a registered nurse? \_\_\_\_\_\_\_\_\_\_\_\_\_ (if yes), did you work during the COVID 19 pandemic? \_\_\_\_\_\_\_\_\_\_\_\_\_ (if yes), what years of experience do you have in nursing? \_\_\_\_\_\_\_\_

**Part 1: Demographic Survey Questions**

Please follow the directions and mark where necessary. No personal identifier information is requested.

1. What is your gender?

|  |  |
| --- | --- |
| Gender  | Mark in only one gender group where you belong |
| Female |  |
| Male  |  |
| Other  |  |

1. Which set does your age lie in the list below?

|  |  |
| --- | --- |
| Age groups | Mark in only one age group where you belong |
| 18-20 |  |
| 21-29 |  |
| 30-39 |  |
| 40-49 |  |
| 50-59 |  |
| 60 or older |  |

1. How would you define your race?

|  |  |
| --- | --- |
| Race  | Mark in only one race group where you belong |
| American Indian or Alaska Native  |  |
| Asian |  |
| Black or African American |  |
| Hispanic or Latino  |  |
| Native Hawaiian or other Pacific Islander |  |
| White |  |
| Other  |  |

1. What is your current marital status?

|  |  |
| --- | --- |
| Marital status | Mark in only one marital status group where you belong |
| Single  |  |
| Married |  |
| Separated  |  |
| Divorced  |  |
| Widowed  |  |

1. How many hours do you work per week?

|  |  |
| --- | --- |
| Working hours per week | Mark in only one working hours per week group where you belong |
| ≤30 hours  |  |
| 31-49 hours |  |
| ≥50 hours  |  |

**Part 2: Working Environment Related Survey Questions**

This section covers the working environment. The table below should be filled out in privacy whether within a group session or individually to facilitate confidentiality amongst the respondents. The scale of frequency varies from 0 (never) to 6 (every day). The questions apply only to nursing health workers during the active pandemic period. Mark where applicable, however, all questions need to be answered.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| ***Questions*** | ***Never*** | ***A Few times during the pandemic*** | ***Once every month*** | ***A Few moments in every month*** | ***One time each week*** | ***A Few times per week*** | ***Every day*** |
| **Section A** | **0** | **1** | **2** | **3** | **4** | **5** | **6** |
| How often did you feel emotionally drained by your job (nursing)? |  |  |  |  |  |  |  |
| How regularly did you feel worn out at the end of a shift?  |  |  |  |  |  |  |  |
| How frequently did you feel like the job is breaking you down?  |  |  |  |  |  |  |  |
| Did you feel frustrated by your nursing job? |  |  |  |  |  |  |  |
| Did you ever feel like you work too hard at your job? |  |  |  |  |  |  |  |
| When working in direct contact with people, did you feel too much stress? |  |  |  |  |  |  |  |
| Did you feel like you had run out of patience or strength concerning the job? |  |  |  |  |  |  |  |
| **Section B** | **0** | **1** | **2** | **3** | **4** | **5** | **6** |
| While interacting with colleagues and patients, how often did you feel an impersonal experience (as if they were objects)? |  |  |  |  |  |  |  |
| How frequently did you feel worn out before getting to work daily? |  |  |  |  |  |  |  |
| Did you get the impression that your colleagues passed on blame for some of their problems?  |  |  |  |  |  |  |  |
| At the end of your work shift, did you feel your patience had run out?  |  |  |  |  |  |  |  |
| Did you feel interested in personal issues regarding your colleagues? |  |  |  |  |  |  |  |
| Did you experience more feelings of insensitivity to your colleagues? |  |  |  |  |  |  |  |
| Did you ever fear that you were becoming uncaring due to the job? |  |  |  |  |  |  |  |
| **Section C** | **0** | **1** | **2** | **3** | **4** | **5** | **6** |
| Did you feel like you had accomplished much in the job? |  |  |  |  |  |  |  |
| Did you ever feel energetic regarding the job? |  |  |  |  |  |  |  |
| Did you ever feel stressed when in direct contact with people at work? |  |  |  |  |  |  |  |
| Did you often feel frustrated by the job? |  |  |  |  |  |  |  |
| How often did you handle emotional stress while feeling calm during work?  |  |  |  |  |  |  |  |
| Did you impact people’s lives positively through your job? |  |  |  |  |  |  |  |
| How often did you find it easy to create a relaxed working environment? |  |  |  |  |  |  |  |
| How frequently did you feel stimulated when you worked closely with colleagues? |  |  |  |  |  |  |  |

**Part 3: Follow-Up Survey Questions**

The section includes both closed and open-ended questions. Kindly follow the directions provided to complete them.

1. Has the COVID-19 pandemic brought any changes to your work environment? (yes/no) \_\_\_\_\_\_\_\_\_\_\_\_\_ (if yes), has it remained the same, worsened or improved? \_\_\_\_\_\_\_\_\_\_\_\_\_.
2. Do you think burnout affects nurses' productivity today and relationship with patients? A. if yes, what strategies do you follow to minimize it? \_\_\_\_\_\_\_\_\_\_\_\_\_.
3. During the COVID pandemic, did your hourly wages increase? (yes/no) \_\_\_\_\_\_\_\_\_\_\_\_\_
4. If yes, did that reduce the burnout you experienced? (yes/no) \_\_\_\_\_\_\_\_\_\_\_\_\_.
5. If no, do you believe increasing wages would have reduced burnout? (yes/no) \_\_\_\_\_\_\_\_\_\_\_\_\_.
6. Does your place of employment offer therapy sessions or a department that focus on nurses’ well-being (yes/no) \_\_\_\_\_\_\_\_\_\_\_\_\_ (if yes), do you use it? (yes/no) \_\_\_\_\_\_\_\_\_\_\_\_\_ (if no), why\_\_\_\_\_\_\_\_\_\_\_\_\_.
7. During active involvement during the covid pandemic, did you ever go for therapy? (yes/no) \_\_\_\_\_\_\_\_\_\_\_\_\_ (if yes), what was it for? \_\_\_\_\_\_\_\_\_\_\_\_\_.
8. Would a reduction in burnout and stress levels affect your productivity positively?
9. How do you alleviate stress and reduce burnout? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
10. In achieving personal psycho-physical well-being, do you believe methods used yield positive results in reducing burnout? (yes/no) \_\_\_\_\_\_\_\_\_\_\_\_\_.

**Justification of the Study**

The research findings can provide vital information and conclusions which can be used by the management of healthcare facilities worldwide to understand the following clinical question: *What Did Nurses do to Alleviate Stress and Reduce Burnout During the COVID-19 Pandemic?* The individual nurse and nursing managers can also use the research findings and conclusion to determine the best way to help team members and colleagues deal with the increased effects of stress and burnout through different activities. The study findings can provide a practical foundation or basis upon which future studies on ways nurses can deal with stress and burnout during pandemics can be conducted to academicians and scholars. Currently, most of the studies only focus on discussing the problem from a localized point of view. In contrast, few studies examine the issue of stress and burnout among nurses during pandemics.

**Theoretical Framework/Nursing Theory to Guide the research**

The proposed research study will be centered on the quality care model proposed by Joanne Duffy. The main reason behind choosing the quality care model is, the theory is congruent with the culture of contemporary nursing practice and the current nursing operating environment. According to Salinas et al. (2020, p. 55), the quality care model exposes and demonstrates the changing roles and responsibilities of nursing in the modern operating environment centered on evidence-based and patient-centered nursing practice. The quality care model application helps to advance the notion that nursing roles and responsibilities should highlight the power of developing and maintaining relationships with patients and their family members to lead to the desired patient outcomes.

**Methodology**

The proposed research study will use a qualitative research methodology, focusing on obtaining data through open-ended and conversational communication. The main reason for using a qualitative research methodology is to determine the "what" and the "why" behind the research phenomenon. The proposed qualitative study will center on surveying nurses to assess and evaluate what activities alleviate stress and reduce burnout in registered nurses during the COVID-19 pandemic. The study's main targeted population are the nurses operating in a public healthcare facility, as the researcher will focus on assessing results before coming up with the conclusion. The proposed research study will adopt a descriptive research design, as the main focus will be describing general or specific attributes as observed and measured by the researcher. According to Nassaji (2015), a descriptive research design focuses on accurately and systematically describing a phenomenon, scenario, or population.

**Scope of the Study**

The proposed study will be limited to registered nurses and does not encompass other health care workers. Even though the study is limited to registered nurses, the researcher acknowledges other healthcare professionals also experience stress and burnout, especially during the pandemic period. However, nurses were chosen because as frontline workers during the COVID-19 pandemic, they share many challenges compared to other healthcare workers.

**Definition of Terms**

Coronavirus Disease: This is an infectious disease caused by a newly discovered coronavirus emerging from China at the end of 2019.

COVID-19: Another name for Coronavirus disease

Burnout: A state of emotional, physical, and mental exhaustion resulting from excessive or prolonged stress.

Stress: State of feeling or emotion where a person feels overwhelmed due to various factors that lead to unmanageable pressure.

**Literature Review**

The second chapter presents a literature review on the subject under study as shown by various researchers, scholars, analysts, and authors. The focus is reviewing the literature concerning the research objective of *determining what nurses did to alleviate stress and reduce burnout during the COVID-19 pandemic.* The literature review process was completed using various databases, with 12 articles being analyzed to summarize the study regarding whether the chosen interventions could reduce stress and burnout among the nurses.

The central understanding is health care professionals and, most importantly, nurses have faced burnout and stress-related challenges to their work environment, dealing with patients, among other factors. Increased cases in the COVID-19 pandemic have led researchers to question whether the problem has worsened and the best interventions in helping the health care workers. The current study is based on the research gap in determining the effectiveness of using activities in dealing with burnout and stress cases among nurses caring for the COVID-19 pandemic.

**Article Critique/ Summaries**

According to Zhang et al. (2020), nurses working at the front-line caring for COVID-19 patients usually experience mental health challenges, including stress, burnout, and even depression. According to the author, supportive coping strategies are required to help the affected nurses reduce their stress and burnout levels. The study by Zhang et al. (2020) focused on identifying the various stressors and burnout cases among front-line nurses caring for COVID-19 patients in Wuhan and Shanghai areas of China while at the same time exploring the different perceived effective morale support strategies. The cross-section survey was performed in March 2020. It included a sample of 110 nurses selected from the Zhongshan Hospital located in Shanghai and who were deployed to fight the COVID-19 pandemic in areas around Wuhan and Shanghai. The researcher used a COVID-19 questionnaire as a methodology and included stressors, coping strategies, and effective support measures. The study's findings showed, out of the 107 nurses (97%) who responded, 96.3% reported homesickness as a stressor, while burnout was observed as emotional exhaustion. Respondents who worked longer hours in COVID-19 quarantine units presented higher emotional exhaustion and depersonalization. According to Zhang et al. (2020), the study's conclusion shows nurses experience high levels of stress, exhaustion, and burnout while in the front-line fighting the COVID-19 pandemic. The study also showed most of the nurse's stressors were related to families, young age, and working long shift times.

According to Salari et al. (2020), stress, anxiety, and depression represent some of the primary disorders affecting hospital staff treating COVID-19 patients, including nurses, psychologists, psychiatrists, and behavioral scientists. Nurses and physicians represent many hospital staff members affected by several workplace stressors spirally due to their primary function of providing heal and treatment to patients. The understanding is, as nurses oversee admitting and caring for COVID-19 patients, they have been extensively subjected to personal and organizational stressing factors and, in turn, affected their overall health and job satisfaction. In the study, Salari et al. (2020) conducted a systematic review and meta-regression study to estimate the prevalence of anxiety, depression, and stress within front-line health workers tasked with caring for COVID-19 patients. The methodology used in the study involved using several keywords to search for information, including stress, burnout, nurse, physician, health care workers, coronavirus, COVID-19, and hospital staff. Some of the databases used in the methodology included SID, MagIran, IranMedex, ScienceDirect, Embase, PubMed, Web of Science (ISI), and Google Scholar databases. A total of 29 studies were obtained from a sample of 22,380, with 21 papers discussing depression, 23 papers discussing anxiety, and nine papers debating stress and burnout. The study's findings showed the prevalence of depression is 24.3%, anxiety is 25.8%, and stress is 45% among hospital staff caring for COVID-19 patients. In the study, the authors conclude a high prevalence of stress, anxiety, and depression within front-line health workers caring for COVID-19 patients.

Salinas et al. (2020) discusses the quality care model, which helps understand how the caring behavior practice promotes the human emotion of feeling cared for when it comes to the patients. The quality care model is congruent with the culture of the contemporary practice of nursing and within the current nursing operating environment. According to Salinas et al. (2020, p. 55), the quality care model exposes and demonstrates the changing roles and responsibilities of nursing in the modern operating environment centered on evidence-based and patient-centered nursing practice. The quality care model application helps to advance the notion which nursing roles and responsibilities should highlight the power of developing and maintaining relationships with patients and their family members to lead to the desired patient outcomes. It is essential to determine nurses' roles and responsibilities in the COVID-19 pandemic to properly implement interventions to help deal with increased burnout and stress among nurses and then address the various stressing factors affecting them. The quality care model plays a crucial role in highlighting the nurses' multiple functions and responsibilities in their working environment, further determining the various stressing factors emanating from such a working environment. Understanding the stressing factors such as understaffing, lack of resources, overworking, and lack of communication skills can further help implement intervention strategies meant to help the affected health care workers.

Sun et al. (2020) discussed the psychological experience of caregivers of COVID-19 patients, noting the continued spreading of the COVID-19 pandemic increases pressure and challenges to the nursing staff. The study uses the phenomenological methodological approach by enrolling 20 nurses from the First Affiliated Hospital of Henan University of Science and Technology. The study used interviews mainly through face-to-face meetings and telephone conversations. The obtained data from the primary research was analyzed using Colaizzi's 7-step method. According to the study's findings, nurses experience negative emotions in the form of fatigue, discomfort, and helplessness, usually resulting from high-intensity work, fear, anxiety, and concern for the welfare of the patients and their families.

Manzano García and Ayala Calvo (2020) discuss the threat of the COVID-19 pandemic and its influence on the nursing staff's burnout and stress. In the study, the researchers used a qualitative methodology and used a convenience sample of 771 nurses in northern Spain hospitals. The study's findings showed the prevalence of burnout among the nursing staff results from work overload, material, human resources, and social support at work. Manzano García and Ayala Calvo (2020) also recommend health care facilities implement strategies to ensure health emergencies are not perceived as threats.

In a related study, Xiong et al. (2020) point out nurses have been among the health care workers who have suffered from a high level of occupation pressure and psychological distress during the outbreak of infectious diseases. The authors used a cross-sectional survey methodology to investigate nurses' psychological status and self-efficacy in the public hospital during the COVID-19 outbreak period. The study involved a sample of 223 nurses who participated in the research study. The study's findings showed the prevalence of anxiety and depression was 40.8% and 26.4%, respectively. According to the survey, the self-efficacy coping mechanism to the COVID-19 pandemic was negatively correlated with anxiety. As shown in the study findings, nurses experience a high score of anxiety and depression when dealing with COVID-19 patients, further increasing the risk of suffering from stress and burnout problems.

Callus et al. (2020) discussed the techniques nurses dealing with patients infected with severe coronavirus such as COVID-19 should use. The authors used a qualitative systematic review methodology and collected data from various databases such as PubMed, PsychInfo, Embase, and CINAHL. The study's findings showed a total of 14 studies met the selection criteria, with most of the studies recommending both organizational and individual self-care interventions. The study's results suggested different intervention methods, including enhancing awareness, self-care interventions, mental health services, applying digital technologies, and implementing organizational approaches. According to Callus et al. (2020), some of the organizational strategies used to reduce burnout and stress among nurses include improving workflow management, reducing workload, enhancing communication skills, providing adequate rest and exercise, and organizing seminars on coping skills. The organizational approaches should also offer extra services such as meditation and physical activities for the nurses to reduce the stress and burnout cases.

Ross et al. (2017) pointed out even though nurses may know about the various health promotional activities to help deal with stress and burnout; this does not always translate to self-care. The understanding is nurses know about various health-promoting activities, including healthy eating, meditation, physical activities, stress management, hygiene, and maintaining healthy relationships. However, the main problem is the nurses' knowledge does not always translate to self-care, underscoring the continued prevalence of stress and burnout cases among nurses, especially during the COVID-19 pandemic. The research study used a case study methodology in attempting to understand nurses' participation in health-promoting behaviors. The study also examines the various intrinsic and extrinsic factors which may influence the nurses' involvement in the various health promotional activities. The research findings show several factors such as long working hours, overworking, and shift work may lead to stressful working environments, which lead to stress, burnout, and job dissatisfaction among nurses.

Ruiz‐Fernández et al. (2020) pointed out health care professionals must deal with traumatic and complex situations, especially when dealing with the COVID-19 pandemic, including compassion fatigue and burnout. The research study used a cross-sectional online survey methodology and a sample of 506 physicians and nurses working in various health centers during the COVID-19 pandemic. According to the study findings, physicians had a higher level of compassion fatigue and burnout scores than the nurses. However, the perceived stress scores were similar in both occupations. The health care professionals working in both COVID-19 units and emergency departments had a higher score of compassion fatigue and burnout. In conclusion, the authors found out levels of compassion stress and perceived stress were the same in all the professionals regardless of the workplace. The study highlights the importance of understanding the different scores of fatigues, stress, and burnout in various types of professionals dealing with the COVID-19 pandemic, especially nurses and physicians.

Blake et al. (2020) argued the need to implement actions and strategies meant to mitigate the effects of the COVID-19 pandemic on health workers' mental health. The mitigation process can be through the protection and promotion of the affected under-risk health workers' psychological well-being during and after the pandemic. The methodology used in the study involved developing a digital learning package, which used an agile method to help in dealing with the psychological issues affecting health care workers. The qualitative methodology used in the study involved recruiting health care workers and health care students over three days using professional networks and provided with the link to the digital package. The e-package developed includes three steps: public involvement activities, content and technical development with iterative peer review and delivery and evaluation. According to Blake et al. (2020), health care workers during the past pandemics have experienced high levels of stress, anxiety, and depression, which have always been viewed as usual during pandemics and outbreaks of diseases. The increased pressures and stress experienced by health care workers during pandemics and outbreaks may increase their risk of burnout, which affects the individual, the quality of patient care, and the health care system. The authors note the increasing spread and effects of the COVID-19 pandemic continue to present significant challenges for health care services, further highlighting the need to develop effective interventions meant to implement health promotional activities to help the health care workers.

Alexander et al. (2015) pointed out self-care promotion and a focus on preventing burnout among health care professionals should be a public health priority. The current evidence shows physical activities such as yoga can effectively improve the nurse’s and other healthcare professional's physical and mental health outcomes. The authors conducted a randomized controlled trial to examine the efficacy of physical activities such as yoga in improving self-care and reducing burnout and stress among nurses. The study involved using a sample of 20 yoga participants and 20 participants in the control group. The study's findings showed the group with the yoga participants reported higher self-care and less emotional exhaustion and depersonalization at the end of the 8-week yoga intervention. The study results prove physical activities such as yoga help reduce burnout and stress among nurses working in challenging environments.

Cocchiara et al. (2019) conducted a systematic review study to determine whether yoga as physical activity can help nurses and other health care workers deal with and manage stress and burnout. The authors used a range of databases to collect data, including Medline, PubMed, and Scopus. The inclusion criteria involved selecting only studies which addressed the topic and 11 articles meeting the inclusion criteria. The studies showed a correlation between implementing yoga sessions and improved physical, emotional, and mental health for the nurses. According to the study's findings, yoga and other physical activities appear to be effective when managing stress and burnout among health care workers in their working environment.

**Suggestions for Future Research**

As noted in the literature review process, there is a research gap on the prevalence and interventions targeting increased burnout and stress levels among nurses handling COVID-19 patients. The COVID-19 pandemic has affected millions of people, facilities, and governments due to a lack of preparation. The pandemic has also shown the importance of urgency in effective and active interventions targeting treating and dealing with burnout and other challenging nursing and clinical environment issues. Since the pandemic started, only a few studies have focused on addressing the need to provide long-lasting and effective support to the affected nurses and physicians attempting to cope with burnout and stress in the workplace. In this case, the main suggestion is to determine the long-term effects of the problem and develop proper interventions; further longitudinal studies must be conducted to measure the various interventions such as meditation and physical activities.

**Research Gaps**

Even though the topic under study is important, there seems to be a lack of general statistics on the effects of stress and burnout among hospital nurses caring for COVID-19 patients and activities to reduce such cases. The current study is based on the understanding which data and new findings are needed to understand whether certain activities can reduce stress and burnout cases among front-line hospital nurses.

**Literature Review Summary**

According to the data collected during this review of the literature process, nurses and other health care workers have experienced increased stress and burnout during the COVID-19 pandemic. The central understanding is various factors play a crucial role in influencing burnout and stress, including stressful factors in the working environment, age, families, and other factors. The reviewed factors show the importance of coming up with strategies and approaches meant to address burnout, stress-related issues, and the need for more interventions targeting nurses, especially during the COVID-19 pandemic period. The literature review showed a research gap in the journal and peer-reviewed articles explicitly addressing the prevalence of burnout and stress among nurses handling COVID-19 patients.

**Research Methods**

This chapter aims to highlight the overall methodology that will be used to carry out the proposed study. The third chapter contains many elements, including research design, participants, setting, or facility chosen, instrumentation, research procedures, pilot testing, data collection, data analysis, data management, assumptions, limitations of the study, and summary.

The proposed research study will use a qualitative research methodology, focusing on obtaining data through open-ended and conversational communication. The main reason for using a qualitative research methodology is that the research aims to determine the "what" and the "why" behind the research phenomenon. The proposed qualitative study will center on surveying registered nurses to *determine what nurses did to alleviate stress and reduce burnout during the COVID-19 pandemic.* The study's main targeted population are registered nurses, as the researcher focuses on comparing different results before coming up with a conclusion. The proposed research study will adopt a descriptive research design, as the focus will be describing general or specific attributes as observed and measured by the researcher. According to Nassaji (2015), a descriptive research design focuses on accurately and systematically describing a phenomenon, scenario, or population.

**Research Design**

The proposed research study will adopt a descriptive research design, as the focus will be describing general or specific attributes as observed and measured by the researcher. According to Nassaji (2015), a descriptive research design focuses on accurately and systematically describing a phenomenon, scenario, or population. A descriptive research design is also effective in answering what, where, when, and how questions involving a given phenomenon. Even though descriptive research can use several research methods to investigate different variables provided, it differs from experimental research in that the researcher does not have control over the variables. In this case, it means that the researcher cannot manipulate the variables in any way as they focus on observing or measuring them (Baillie, 2019). Choosing a descriptive research design, in this case, allows the researcher to use a survey research methodology, which enables the gathering of large volumes of data that can be analyzed and presented for frequencies, averages, and patterns.

One key advantage of using the descriptive research design is that it allows a researcher to view the complete picture of a phenomenon's current happenings at a chosen point in time. A descriptive research design also makes it easier for the researcher to develop questions for further study to expand the future topic (Baillie, 2019). The chosen research design will be non-experimental. The researcher will not use hypothesis testing to make inferences regarding how conditions affect behavior but will focus on investigating nurses' role in preventing COVID-19 transmission. There are no threats to the validity of the design proposed in the study as the researcher aimed to choose the research design with minor limitations.

**Participants**

This study will include registered nurses working at the frontline dealing with COVID-19 patients. The central understanding is that the research should focus on registered nurses only as they have been affected at the frontlines dealing with the pandemic and caring for the COVID-19 patients.

**Setting**

The researcher will focus mainly on registered nurses from public hospitals, even though it is possible to choose from a private facility. Selecting registered nurses from public hospitals or healthcare facilities to carry the research is motivated by the understanding that a large part of the fight against the COVID-19 pandemic has been centered on public facilities. Current research shows that registered nurses and healthcare workers in public research facilities have also faced most of the challenges associated with the fight against the pandemic compared to private facilities. The proposed study will aim to survey nurses caring for COVID-19 patients while working in public facilities and *what they did to alleviate stress and reduce burnout during the COVID-19 pandemic.*

The researcher will also focus on sending the questionnaire electronically to avoid time wastage and allow the respondents enough time to respond. Consent will be sought from the respective respondents before conducting the research.

**Instrumentation**

Instrumentation refers to the process of developing research instruments that can be utilized appropriately in gathering data on the given study. Some of the main instruments used in data gathering processes include questionnaires, interviews, and observation. However, the proposed study will mainly focus on using the questionnaire or survey instrument. The researcher aims to allow the targeted participants to answer the questionnaire questions at their own time without the need to feel pressured.

The research survey utilizes the Maslach Burnout Inventory MBI tool to assess the measure of burnout amongst nurses in the healthcare sector during the COVID-19 pandemic. the MBI addresses three significant components: “emotional exhaustion, depersonalization, and personal accomplishment” (Maslach et al. 1997). The fully anchored frequency scale varies from 0 implying never to 6 which implies every day. The subscale under emotional exhaustion (*Section A in survey questions*) gages emotions or exhaustion and overextension due to the nurse’s job. Next, the subscale under depersonalization (*Section B in survey questions*) assesses measures of unfeeling and impersonal response during nurse and patients’ interactions. Finally, the personal accomplishment (*Section C in survey questions*) subscale measures emotions concerning competence and successful achievement as experienced by nurses.

**Research Procedures and Pilot Testing**

The research procedure will involve pilot testing the questionnaires before the actual data collection. The focus will be on testing the research instruments' reliability and the questionnaire, hence testing the validity of the data collected. The researcher will aim to do a pilot test with 10% of the respondent before distributing the questionnaire to the rest of the participants.

**Data Collection**

The proposed study will collect primary data by using a questionnaire. The questionnaire will be developed centered on the specific objectives of the study and to guide the respondents. The questionnaire will also use both structured and open-ended questions. The focus will be to motivate the nurses to provide as much information as possible relating to the study. The researcher will administer the questionnaires to the respondents electronically through email to minimize disruption of daily activities to collect the data.

**Data Analysis**

The data analysis process involves transforming the collected data into meaningful information that can be used in the process of decision making or policy formulation. In the current proposed study, the data analysis process will involve editing, error correction, and then consolidating the information gathered from primary data collection. The researcher will then use descriptive and inferential statistics using the SPSS version 22 and then presenting the analyzed data in the form of graphs, tables, and figures.

The addition of answers in section A summing up to less than 17, a range of 18 to 29, and above 30 indicate a low, moderate, and a high degree of burnout respectively. In section B, the sum of answers below 5, between 6 and 11, and above 12 suggest a low, moderate, and high degree of burnout respectively. In section C, results of less than 33, between 34 and 39, and above 30 show a high, moderate, and low degree of burnout.

MBI was used to determine the nurses with, with moderate, and without burnout, and a t-test was used to determine if there existed a significant difference in how strategies they adopted to alleviate burnout. ANOVA was used to compare between more than one group to determine if there existed a difference in strategies that they used to minimize burnout.

**Data management**

The process of data management in research refers to the overall care and maintenance of collected data, which is produced or collected during the research process (Surkis & Read, 2015). Data management as a process plays a crucial role in helping to ensure that the collected data is organized correctly, described, preserved, and shared. The researcher will manage the information correctly to aid the study's overall results' reliability and validity in the current research.

**Assumptions of the Study**

One of the critical assumptions in the current research is that using inductive reasoning will allow the investigation to grant more freedom to the research subjects to direct the research instead of having a specific conclusion.

**Limitations of the Study**

One fundamental limitation of the proposed study is that the choice of a qualitative research methodology means obtaining research findings, and conclusions cannot be generalized for the entire healthcare industry. However, the findings can be used as a foundation for future research on the matter. Another key limitation of the study is using the questionnaire instead of interviewing instrumentation means that the respondents hold immense power over the researcher. This limitation may affect the research findings' overall validity when targeted respondents fail to respond to the questions effectively or a large percentage fail to submit the filled questionnaire. However, the researcher aims to ensure that an earlier appointment is sought before sending the questionnaires to promote a high rate of participants' responses.

**Research Method Summary**

In summary, the third chapter uses the qualitative research methodology to *determine what nurses did to alleviate stress and reduce burnout during the COVID-19 pandemic.* The methodology chapter includes several components, including research design, participants, settings, instrumentation, research procedures, pilot testing, data collection, data analysis, data management, assumptions, limitations of the study, and summary.

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