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Nursing Leadership and Management of Nursing Staff Burnout during the COVID-19 Pandemic

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Abstract

Objective: The purpose of this research study is to assess the correlation between effective nursing leadership and nursing staff burnout during pandemics. **Background:** The problem of nursing burnout if unmanaged can be traumatic to the nurse at the bedside. It can lead to many problems that can destabilize how nurses and other clinicians' work. It is imperative that we study the best practices that can reduce nursing staff burnout. **Methods:** Cross-sectional Survey design was used to gather data and to assess the level of burnout among nurses and nursing leadership influence during the COVID-19 pandemic. Five hundred (N = 500) nurses from a population of 1500 nurses who worked during the pandemic in the Upper Bronx of New York City responded to an invitation to participate in this study with a focus on three theories and three leadership, behavioral and burnout survey tools. **Results:** Using descriptive statistics, comparisons of means, and correlations among the study variables, it was revealed that nearly all respondents experienced burnout and there was a correlation between effective nursing leadership, management, and nursing staff burnout. **Conclusions:** Data obtained went through both internal and external validity to optimize validity following the order of identification, collection, analysis, and interpretation of findings. The effect of nursing burnout can be managed or prevented by nursing leadership most especially during crises and pandemics.

Subject Areas

Nursing

Keywords

Burnout, Leadership, Management, Nursing, Pandemic, Staffing, Stress

1. Introduction and Overview

There has been an evolution of nursing staff burnout leading to dissatisfaction in the profession; most clinicians are faced with extremely stressful and demanding situations during their work [1]. According to Ma *et al.* (2021), burnout is caused by prolonged exposure to stressors at work. Furthermore, their study reports that many nursing staffs are subject to internal and external stressors that can lead to nursing burnout [2]. Only some of these stressors can be controlled. Staff burnout creates overwhelming exhaustion, cynicism, detachment from the job, ineffectiveness, and lack of accomplishment [1].

Burnout among nurses can be mitigated by actions from healthcare institutions and other stakeholders aimed at potentially modifiable factors, such as work-life conflict, staffing schedules, staff-to-patient ratios, workloads, ancillary staff, and a safe work environment [3]. With the pandemic effect as a stressor severely affecting more than 200 countries, clinicians, mostly frontline workers, have experienced both physical and psychological burnout due to the constant internalization of others' suffering. Burnout can diminish the ability of healthcare workers to deliver healthcare services effectively [3]. Perceptions of burnout have therefore been an important research topic [4].

With the vital nursing role in the healthcare industry, positive leadership skills can help reduce perceptions of burnout through emotional intelligence usage, team-effort approaches, support, provision of resources, and proper manpower usage. These strategies can help improve turnover, reduce absenteeism, and improve productivity and performance [3]. The sudden onset of the crisis caused by the recent pandemic created a significant leadership challenge as the existing healthcare network was ill-prepared to handle the number of cases [5]. Clinician burnout is currently a public health epidemic that is affecting the quality and safety of healthcare [6]. More than half of all clinicians throughout the United States experience symptoms of burnout and the effects have led to increases in depression and suicide among clinicians [6].

Gelanis *et al.* (2021) conducted a study examining nurse burnout and associated risk factors during the COVID-19 pandemic and concluded that nurses experienced high levels of burnout impacted by sociodemographic, social, and occupational factors [7]. The COVID-19 pandemic opened the eyes of leaders of healthcare systems as well as state and federal legislators to the need to build a sustainable working environment and provide resources that match care delivery demands to reduce stress among nursing staff [7]. The pandemic increased the nursing workload, leading to nursing burnout [8]. Healthcare professionals on the front faced increased workload and stress, straining the resources of healthcare organizations, and affecting nurse performance due to short staffing [3].

Researchers have found that nurse burnout negatively impacts not only nurses' mental health and emotional well-being but also nurse retention, patient outcomes, and patient care [9]. Nurses make up 30% of nationwide hospital employment; among the 3.9 million nurses in the United States, 31.5% are reported

to have left their current job because of burnout [10]. A study by Silvers (2017) showed that poor leadership is one of the biggest causes of perceptions of burnout in the workplace, followed by an excessive workload [11]. Extra workloads result from the poor delegation of work and often unstructured management or poor leadership support. The nurse-workload increases during crises [9].

Despite the enormous amount of research on clinician burnout, nursing burnout remains a threat to nursing employees, patients, and their families in an organization [12]. This study brings to light nursing leadership's impact in addressing nursing staff burnout during crisis-like situations, such as the COVID-19 pandemic. Data were sought from nurses who experienced nursing burnout to assess the impact of nursing leadership in reducing burnout. Outcomes from this study can be used to establish effective nursing leadership strategies in reducing nursing staff burnout during future pandemics or other external crises.

1.1. Research Questions

This study was conducted due to its relevance to nursing practice and the COVID-19 pandemic, which is still affecting the global population. The problems nurses face in the line with their duties cannot be easily solved by nursing leadership and top-level management. During crises such as the COVID-19 pandemic, nursing leadership must upgrade from normal and traditional practices and be more organized in addressing crises or pandemics. The spirit of inquiry undergirding this research is to raise questions and challenge existing and traditional practices of nursing leadership and management as they affect nursing staff during crisis situations and propose creative approaches to address nursing staff burnout.

In this sense, nursing leadership comprises nursing managers, directors, and members of the senior nursing management team who make direct managerial and approval decisions concerning nursing staff. The research questions posed in this study emphasize the effectiveness of nursing leadership, and how nursing leadership can be more effective during crisis-like situations like the COVID-19 pandemic to reduce the effects of nursing burnout. Also, the relationship between nursing leadership or management and the effect of nursing staff burnout establishes factual revelations among nursing staff; can a more proactive intervention by nursing leadership and management compared to the current strategies reduce the risks of nursing burnout during times of pandemic?

1.2. Scope, Limitations, Delimitations, and Assumptions

This study assesses the nurse leader and his or her influence on nursing staff burnout. The study was conducted across targeted nursing staff who worked during the pandemic by gathering data to establish the role nursing leadership played in reducing burnout. This study is limited to context and purpose. The literature review is limited to the findings of the articles selected for analysis in terms of

reliability and accuracy [13]. The study is inclined toward the opinion of the sample and the researcher's inclination as per the understanding and correlation derived from the data received [13]. This research is focused on a selected sample of nurses who worked during the pandemic; their opinions were critically assessed.

This research focused on literature as insights that were published within the last five years but to maintain relevance, some other studies more than five years old were adopted. The experience delimitation helped to avoid biases to burnout and more tenacity towards work stress. The sample size was expected to represent a larger population of nursing staff than other healthcare professionals. Since there are general nursing practice and safety measures in the nursing delivery model, the nursing sample power versus the population is reviewed to establish the research outcome.

2. Literature Review

A review of the literature is presented to understand the research's contextual background and form a conceptual framework to represent the relationship between nursing leadership and nursing burnout [14]. The literature review establishes the theoretical foundation of the current study, related studies, and the research's methodological framework [14]. Several studies with essential findings and essential methodological and theoretical contributions have focused on burnout experienced by nurses [1]. Several studies with essential findings and essential methodological and theoretical contributions have focused on burnout experienced by nurses [1]. Searches of critical keywords in this study using the MEDLINE, CINAHL, and PsycINFO databases revealed quantitative empirical studies that demonstrate associations between burnout and nursing leadership-related factors [1].

The main search included the keywords "burnout", "pandemic", "nursing burnout", and "effective nursing leadership behaviors", using free-search terms and indexed terms, synonyms, and abbreviations. It has been revealed that burnout can be a work-related phenomenon, and there are many theories with different views [15]. The employment context as a nurse professional is marked by psychological risks, grueling long shifts, work overload, rotating shifts, many unscheduled service changes, and stress due to critical and demanding situations like the COVID-19 pandemic [16]. This study is to identify the theorized relationship between nursing burnout and nursing leadership influence during a crisis-like situation, such as a pandemic.

The nursing profession is identified as one of the leading professions at risk for burnout [8]. Burnout has significant health implications [1]. Guided by the theoretical framework; the current study investigated the effects of nursing leadership on nursing staff burnout during the COVID-19 pandemic. The study examined the relationship between nursing staff burnout and nursing leadership and its impact to establish the basis for future studies of leadership style during crisis-like situations such as the COVID-19 pandemic. It is reported that 80% of

burnout was experienced by clinicians working in emergency departments, 40% of whom worked more than 80 hours for two weeks [17]. The prevalence of the overall burnout rate ranged from 49.3% to 58% (of 12,596 nurses), and nurses seemed to be at high risk for both socio-demographic and work-related features associated with burnout [17].

2.1. Theoretical Framework

This study employed three (3) theoretical frameworks that hold relevance. The Burnout Theory, Relationship Theory of Leadership, and Maslow's Hierarchy of Needs were used to establish the structure of this study. Most research on burnout has involved cross-sectional studies using statistical causal models, which has created a database that has promoted support for many hypothesized links between burnout, its sources, and its effects [1]. There are several explorative studies that relied primarily on qualitative techniques and gravitated toward relevant ideas from clinical psychology [1].

The Burnout theory shows that burnout perceptions can be influenced by two essential factors: organization or management resources and personal resources [15]. Burnout results when job resources cannot match e job demands, mostly when there is a lack of managerial control and support. Lack of autonomy, involvement, worker cohesion, task orientation, work pressure, clarity, physical comfort, and innovation can lead to stress-related factors leading to burnout [15]. Leadership style falls within the organizational and management resource where authentic leadership can help to prevent burnout. As a result of burnout, there is an adverse impact on the nursing staff's mental and physical health, work quality, and job satisfaction. This theory posits that effective leadership can improve healthcare workers' performance and well-being by preventing burnout [18].

The Relationship theory is based on the importance of an organization's leaders regarding the workforce [19]. The leaders can act as mentors and remain in constant communication with the workforce to understand their needs and meet them. Lack of worker cohesion, clarity, and effective emotional support can lead to stress-related factors leading to burnout [19]. According to this theory, efficient leaders try to make the workplace safe and less stressful to influence staff positively [19]. Employees would also get better opportunities to express their concerns, beliefs, and opinions and ensure better transparency around the leaders who follow a relationship strategy to leadership [20]

Maslow's Hierarchy of Needs theory addresses and mitigates the perception of burnout among staff and nurses. This theory helps to understand how staff needs and expectations can be addressed at psychological, security, social, self-esteem, and self-actualization levels hierarchically to improve job satisfaction and mitigate the perception of burnout. Therefore, it is possible that robust management of nursing staff needs can be fulfilled using this model for a more strategic approach to inquire about and address situations of burnout during crises such as

the pandemic [21]. Hotchkiss (2018) related Maslow's theory of management to address well-being detractors, such as secondary traumatic stress and burnout, by enhancing well-being promoters at various levels [22]. Physical care and mindful relaxation can be used to address psychological needs [23].

2.2. Contextual Background

Situations of pandemics and mass disasters create extensive challenges in delivering healthcare services [24]. These situations cause a rapid increase in the number of victims who need immediate care, leading to a shortage of healthcare personnel and medical resources. Increased healthcare demands and suboptimal usage of resources increased healthcare personnel's workload during the COVID-19 pandemic [25]. The healthcare system's stress was further increased because of insufficient planning and infrastructure availability, critical reserve, and healthcare equipment [26]. This led to a flawed support system for healthcare providers and nurses, negatively affecting their workload and signs of burnout.

The pandemic's primary influence on perceptions of burnout is mediated by the disparity between the demand for healthcare services and the supply of resources and healthcare professionals to meet all patients' care needs [27]. Poor instructions from leaders, lack of experience, working in stressful conditions, inadequate preparedness, panic, and chaos were organizational factors that cause burnout during the pandemic. Furthermore, infrastructural factors like transportation and communication challenges and supply shortages also cause burnout among healthcare professionals [25].

Burnout can be a reaction to chronic or acute stress at work [28]. There is a correlation between care delivery and the care environment that can also contribute to uncontrolled stress that leads to burnout [29]. Research has shown that negative aspects of the work environment are related to adverse events associated with low-quality care, which can increase the risk of undesirable consequences such as burnout [28]. Emotional exhaustion is a trait of burnout that is consistently related to unfavorable working conditions controlled by the leadership [1]. Yet, autonomy, lack of organizational support, and control over the care delivery environment cause the most burnout [30].

2.3. Conceptual Framework

The conceptual framework of this research establishes the relationship between nursing leadership and nursing staff burnout to clearly establish the direct impact of nursing leadership in reducing nursing staff burnout [11]. It can be described in **Figure 1**, the relationship between managerial control on stress and burnout; relations between the work environment and its related stress greatly affect burnout management [30]. There is a clear indication that lack of leadership involvement, workers' cohesion, task orientation, autonomy, workload or pressure, lack of effective communication or clarity, and lack of physical and

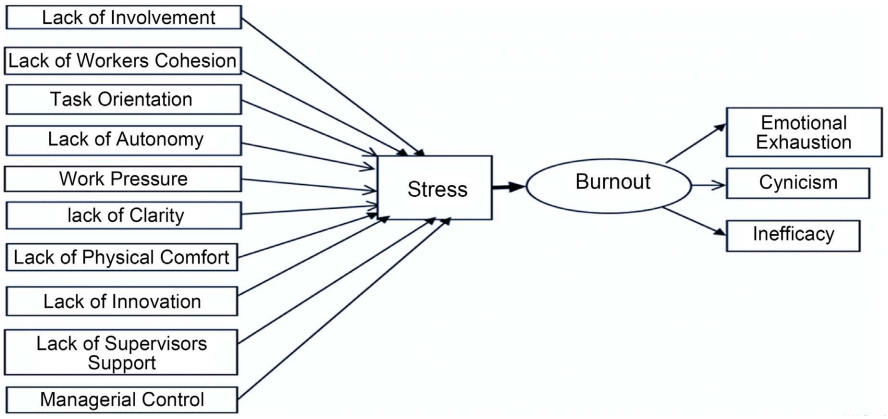

Figure 1. Conceptual framework; the mediation relationship [30].

managerial control create an enormous amount of stress leading to nurse burnout [30].

There are serious effects of nurse burnout on the personal life and productivity at work. Still, there is a gap in the research on service professionals in developing countries. Burnout directly affects job performance, quality outcome, and satisfaction and has serious consequences on productivity [31]. Burnout models have been based on theories about job stress and the notion of imbalances leading to strain [1]. Job stressors are the imbalance between work demands and available resources, which can lead to an emotional response of exhaustion and anxiety, which, in turn, creates defensive changes in attitudes and behavior such as greater cynicism [1]. There is no doubt that nursing is considered one of the most stressful jobs among a wide range of human service occupations.

Job stress is a product of various dynamic disorganized interactions between a person who is the employee and the environment in which he or she works. Stress is the major influence of burnout and relates to both internal and external factors [1]. Conceptually, stress is primarily a personal reaction toward environmental stressors. These stressors come from within and outside the job environment [1]. Stressors that come from within can be from the job itself, such as role-based, poor subordinate relationships, colleagues, organizational structure, and leadership [10]. Examples of outside stressors are natural disasters, critical mass casualties, economic breakdown, authoritarian governmental bodies, and disasters such as the pandemic [10].

Stress comes because of high psychological demands at work, low or lack of decision latitude or control, and lack of social or organizational support [32]. Employee support at work is manifested in perceived work cohesion, management, and leadership support and involvement. Work cohesion serves as a mechanism to cope and deal with workload and stressors at work. During higher demands, it is expected that the system is well coordinated as shown in **Figure 2**. Job demands must meet the needed resources to create a balance in reducing burnout [18].

Decision latitude is manifested in the degree of autonomy, managerial control,

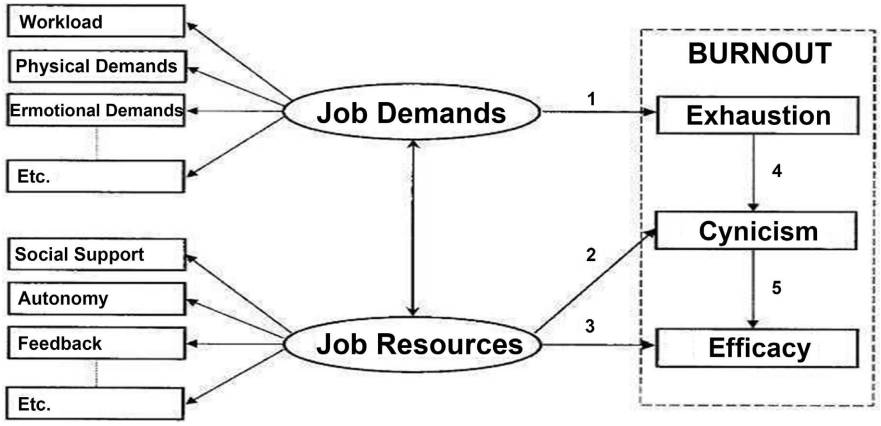

Figure 2. Relationship between Job demands, resources, and burnout [17].

and innovation [33]. Workers whose jobs are rated high in job demands and high in employee control reported significantly less stress and exhaustion [33]. For this reason, managerial control and autonomy are two extremes we can consider [32]. Jobs with high autonomy experience low managerial control and vice versa, but jobs with higher managerial control will impose stress on workers [33]. Burnout is caused by unmanaged or uncontrolled stress and the working environment [18]. Effectively managing and controlling stressors can reduce burnout [18]. Stress mediates the relationship, work environment characteristics, and burnout [34].

2.4. Leadership Influence on Work-Related Stress

The theory of leadership can help understand work-related stress and job demands among employees [35].

This helps to create a supportive leadership system that allows the mitigation of burnout by minimizing workplace stressors [35]. Job demand and the quality of nursing leadership can help create better social support and human resources to help cope with work demands and help manage the associated psychological and physiological impacts of nursing burnout [18]. For medical professionals working at the frontline, the leadership influence strategy significantly reduces the experience of burnout through the development of specific contingencies that can prevent counterfactual reasoning [27]. Applying the leadership theory strategy makes it possible to develop professional respect, loyalty, and affection for the work and leadership [11]. This increases healthcare professionals' resilience and leverages positive attitudes toward leadership and tendencies to follow responsibilities and duties in an ethical, responsible, accountable, and moral manner [6].

By ensuring proper trust, support, information, attention, and feedback, resources can be restored to help cope with extreme stress circumstances such as pandemics and minimize the role stressors created by psychological demands [24]. High quality of exchange with leadership improves the capability of mitigating workplace stressors and burnout [8]. For extreme situations like a pan-

demic, the leadership theory's approach is one of the most appropriate [36]. It requires strong collaboration and coordination between the workforce and leadership to continually evaluate situations and develop appropriate strategies to mitigate them [36].

In contrast, a study by Dinibutun *et al.* (2020) showed that the level of involvement and participation among clinicians addressing the COVID-19 pandemic was negatively related to burnout [37]. This implies that healthcare professionals who are more actively involved in the fight against the disease experience less burnout than professionals with a passive role [38]. This is due to a strong sense of personal accomplishment while facing the immediate outcomes for patients suffering from COVID-19. This sense of achievement helps to develop a feeling of job satisfaction that negatively affects burnout perception [33].

2.5. Related Studies

Dall'Ora *et al.* (2020) identified the factors that lead to burnout [15]. These included management-related factors such as high workload, low job control, value incongruence, ineffective decision-making, adverse social climate or support, and inadequate rewards. Burnout also reduces job performance, and adversely affects the quality of care and patient safety, leading to untoward incidents and a negative patient experience [39]. Rates of medication errors, injuries, infections, and hospitalizations also increase due to burnout. Furthermore, further studies reveal burnout is related more to stress. Most studies suggest that emotionally strained professionals who have experienced some form of stressor can cause a psychological demand leading to staff burnout [40].

Occupational stress has a way of increasing psychological demands from nurses who may lose control over their professional abilities. A study by Munhoz *et al.* (2020) concluded that, if professionals do not keep occupational stress under control, the prevalence of burnout will increase [40]. Hence, strategies of professional valorization should be maintained by the organization or the institution, and space should be provided to cope with stress [40]. The healthcare system's stress is further increased because of insufficient planning and infrastructure availability, critical reserve, and healthcare equipment. The effects of burnout on personal lives and productivity cannot be overemphasized. Therefore, nurse burnout is an important research topic.

3. Methodology

This cross-sectional study design assessed the level of burnout among nurses and the influence of nursing leadership during the COVID-19 pandemic [2]. Nurses were at the front lines during the pandemic [27]. This primary research gathered first-hand field data to explore the research topic [41]. Using primary data for this study will help create new nursing literature on the importance of leadership and management during crises that can validate existing research and develop further studies [42]. To understand nurses' direct opinions about the pandemic

crisis, the preliminary research design directly involved the researcher in data collection. This approach, rather than depending on existing information, essentially focused on collecting context-specific data directly relevant to the research topic [42]. It drastically enhanced the validity and reliability of the data and, therefore, the nursing research findings.

3.1. Sample Studied

This research sampled nurses who worked during a 6-month period during the second wave of the COVID-19 pandemic. As per NYC COVID-19 data (between November 2020 and April 2021), the wave was at its peak with high hospital admission rates. This period was selected based on the pandemic surge and rates of hospitalization. The approach involved asking questions using an online survey. The online medium provided a significant advantage over the face-to-face survey method as respondents could be reached more quickly [43]. The responses were given at the respondents' convenience, thereby improving the response rate. This study verified the threat generated by COVID-19, nursing staff burnout, and leadership influence that helped to reduce the burnout effect or increase the effect of nursing burnout on nurses. The sample needed for the study was calculated taking into effect the study's expectations, validity, and statistical significance observations where the final sample indicate a reliable sample power.

3.2. Study Design

The primary method involved field research with hands-on practice and data-gathering experience [44]. This exploratory research was intended to develop a better understanding of the existing challenge of nurses' burnout while highlighting various aspects like leadership and management during pandemic times that require further research [44]. This approach is based on the grounded theory of interpretation research. The research design follows essential methods to study and find relevant data to establish a conclusion. This allows the study to have a pattern and structure that can be followed. The validity of the study is established by adhering to a standard academic methodology and framework [44]. The study concerns the measurement of burnout among nursing staff during the pandemic and incorporates the widely used Maslach Burnout Inventory-Human Services Survey (MBI-HSS), Leadership Empowering Behaviors (LEB), and Perceived Stress Scale (PSS-10-C). Data received were assessed and analyzed to develop a nursing leadership response strategy that will help reduce nursing staff burnout during crisis-like situations like the COVID-19 pandemic.

3.3. Instrumentation, Informed Consent, and IRB

This study used the Maslach Burnout Inventory-Human Services Survey (MBI-HSS), the Leadership Empowerment Behaviors (LEB), and the Perceived Stress Scale (PSS-10-c) instruments to generate an online survey in which the data collected were analyzed to assess nursing leadership's impact on nursing staff bur-

nout during the COVID-19 pandemic. These instruments were used to achieve the outcome of this study, incorporating suitable survey methods. The study design supported the use of appropriate quantitative instruments to provide accurate measures within the context of this study [45]. An online link to the survey was designed and sent to potential participants through emails, WhatsApp groups, social mapping, one-to-one engagement, flyers, LinkedIn surveys, Google, Facebook, and other platforms. Potential respondents were reminded with follow-up phone calls. The study was voluntary, and nurses consented using a generated informed consent [46].

Informed consent was obtained from nurses by providing them with all information regarding the research and its importance along with their right to withdraw from the research at any time without the fear of any adverse effects. Potential participants were given points of communication, details about the method used for the research, possible publication, the scope of the study, and their right to their privacy [47]. The data and the identity of the nurses as respondents were kept confidential and secured from unauthorized usage or access and were not divulged without participant consent. Survey participation was voluntary [46]. Permission to use research tools was sought and requested from the authors of the tools and the research was reviewed by the Aspen University's Institutional Review Board (IRB) [46].

3.4. Data Collection, Analysis, and Management

The survey was intended specifically for nurses who worked in hospitals in New York City that recorded high numbers of critical cases of COVID-19 during the pandemic. It was restricted to nurses who honestly cared for and responded to COVID-19 patients within the study period these nurses worked. The sampling method that was used was purposive sampling, where homogenous samples that fit the research criteria were selected. This allowed quicker access to samples and gave adequate time to derive and analyze the data [45]. The sample size was adequate to cover an important sector of the nursing population and gain an in-depth understanding of the research topic. The sample consisted of nurses of any gender, but not limited in the inclusion criteria were nurses with experience of at least 3 years or more. Experienced nurses may better understand what it takes to be stressed and can properly assess leadership influential experiences. Using the online survey approach optimized the response rate at a low cost and it ensured real-time access to the data [45].

The recruitment method focused on the sample or subject selection, eligibility, consent, training, and confidentiality [48]. The study utilized volunteers who shared a similar interest in the study and helped with data acquisition. Samples of nurses who worked during the period of study and during the pandemic were recruited to engage in the study voluntarily. There was no managerial, monetary, or any other influence that could skew the study toward a particular direction. Volunteers were trained and provided with the logistics, resources, and access to distribution materials. Nurses consented to participate in using survey links sent

to their emails, group chat, word of mouth, random telephone contact, bulletin board posting, text messages, and union platforms [48]. If a nurse declined to participate, no identifiable information was kept about the individual without consent. The purpose and the direction of the study were paramount in this sense to achieve optimal results [48].

This research utilized correlational analysis to understand the strength of a linear relationship between two variables and their association with each other [49]. This helped to understand leadership strategies and nurse expectations in the reduction of nurse burnout during the pandemic. This method helped to contradict results and gave a voice to the nurses as respondents and ensured that the research findings were based on participant experiences and opinions about the role of nurse leadership [49]. This approach provided methodological flexibility to suit the study's design of understanding the perception of burnout and the significance of leadership in reducing burnout and gaining more information by including participants' unique views and perspectives. The mixed method allows for gaining a rich and comprehensive understanding of the data collected [49].

3.5. Internal and External Validity

The results obtained for this study are trustworthy and meaningful. This study is deemed to be valid in studying the cause-and-effect relationship between nursing leadership and nursing staff burnout considering the effects of the COVID-19 pandemic. Factors are clearly defined as nurse leadership behaviors that had an impact on reducing nursing staff burnout during the pandemic [50]. Primary unbiased field data were acquired directly from nurses who worked in their regular units and departments during the pandemic.

The study used mixed methods of research study that integrated both quantitative and qualitative data within a single investigation. The basic premise of this methodology is that it presented a more complete synergistic utilization of data than doing separate quantitative and qualitative data collection analyses. Using rigorous procedures in collecting and analyzing data appropriate to each method's tradition ensures an appropriate sample size for quantitative and quality analysis [51]. The internal validity was justified by the procedural nature of data acquisition. The external validity was generalized in the study context and the internal validity showed a degree of confidence that proved the relationship of study variables. The study focused on its outcome understanding of how nurses felt, but their opinions need to be validated to ascertain actuality.

The study compared findings from qualitative and quantitative data sources to establish validity [14]. Data from nurses using a sampling strategy that sent online surveys were gathered, and the results are depicted in a numerical format. This approach is useful from the social science perspective to understand burnout's social phenomena among nurses related to the research. The research was elaborate, objective, and investigational, and the results derived from this re-

search approach are unbiased, statistical, and logical [51]. Since this research involved collecting much data from a large sample of nurses who served during the pandemic, its outcomes can represent a significant population [51]. Online survey research is an essential tool for the quantitative method but will use qualitative data to explore quantitative findings. Using an initial quantitative instrument phase followed by a qualitative data collection phase offers more detail than using qualitative data alone [50].

4. Results

The focus of this study is to understand the effect of nursing leadership on nursing burnout during pandemics, specifically during the COVID-19 pandemic. The response to our data gathering was massive and most nurses shared their concerns. The descriptive statistics, comparisons of means, and correlations among the study was presented in **Tables 1-4**. These are in response to the online survey category 1: Perceived Stress Scale (in the last 6 months); Category 2: MBI-HSS Emotional Exhaustion (in the last 6 months) and Category 3: Leadership

Table 1. Pearson correlations source: Field data, 2022.

		Category 1	Category 2	Category 3
Category 1	Pearson Correlation	1	0.691**	0.794**
	Sig. (2-tailed)		0.000	0.000
	N	500	500	500
Category 2	Pearson Correlation	0.691**	1	0.458**
	Sig. (2-tailed)	0.000		0.000
	N	500	500	500
Category 3	Pearson Correlation	0.794**	0.458**	1
	Sig. (2-tailed)	0.000	0.000	
	N	500	500	500

**Correlation is significant at the 0.01 level (2-tailed).

Table 2. Descriptive statistics category 1: perceived stress scale (In the last 6 months).

Questions	N	Min	Max	Mean	Std. Deviation
I have felt as if something serious was going to happen unexpectedly with the pandemic.	500	4	5	4.80	0.400
I have felt nervous or stressed about the pandemic	500	4	5	4.80	0.400
I have felt unable to cope with the things I have to do to monitor for a possible infection	500	3	5	4.76	0.513
I have felt that I have everything under control in relation to the pandemic	500	2	5	4.16	0.968
I have felt that the difficulties are increasing in these days of the pandemic, and I feel unable to overcome them	500	3	5	4.68	0.546
Valid N (listwise)	500				

Table 3. Descriptive statistics category 2: MBI-HSS emotional exhaustion (in the last 6 months; Source: Field data, 2022).

Questions	N	Min	Max	Mean	Std. Deviation
Did you feel emotionally drained from your work?	500	4	5	4.92	0.272
Did you feel used up at the end of the workday?	500	4	5	4.92	0.272
Did you feel fatigued when you get up in the morning and must face another day on the job?	500	4	5	4.92	0.272
Did you feel burned and frustrated by your work?	500	4	5	4.92	0.272
Did you feel much stress and working and much strain with patients?	500	4	5	4.88	0.325
Valid N (listwise)	500				

Table 4. Descriptive statistics category 3: leadership empowering behavior (in the last 6 months; Source: Field data, 2022).

Questions	N	Min	Max	Mean	Std. Deviation
I received encouragement and support to try out new ideas during this pandemic.	500	1	5	3.28	1.002
I felt my manager was willing to risk mistakes on my part if, over the long term I will learn and develop because of the experience.	500	1	4	2.94	0.733
Leadership shared information I need to ensure high-quality results.	500	1	4	2.82	0.795
I felt leadership focused on corrective action rather than placing blame when I make a mistake.	500	1	4	2.73	0.730
The leadership provided me with the information I needed.	500	1	4	2.76	0.737
Valid N (listwise)	500				

Empowering Behavior (in the last 6 months). Using the MBI-HSS Emotional Exhaustion scale, 80% of the nurses felt as if something serious was going to happen unexpectedly with the pandemic, compared with 20% who did not. Also, 80% of them felt nervous or stressed about the pandemic compared with 20% of them did not; 80% felt they were unable to cope with the things they had to do to monitor for a possible infection.

Nursing burnout was prevalent in the entire results, and most felt nursing leadership did not effectively responded to their calls and there was no management in their calls to promote safe staffing and management. 80% of the respondents felt the pandemic was unexpected and felt something worse was expected and a similar percentage felt nervous and stressed. More than half of the nurse respondents (52%) felt that they had everything under control in relation to the pandemic. This was due to their experience and skills, which were still intact. But 48% felt otherwise, that nursing leadership was not able to keep things under control. Most of the nurses (72%) felt that difficulties increased in the days of the pandemic, and they were unable to overcome them compared with 28% who felt otherwise.

Under the Perceived Stress Scale, of the 500 nurses who responded, 92% felt emotionally drained from their work; 2% felt they were used up at the end of the workday; 92% felt fatigued when they got up in the morning and had to face another day of long hours, no breaks, and staff shortages. Similarly, 92% felt

burned out and frustrated by their work; 88% felt much stress with working and much strain from their patient load. In terms of nursing leadership and management impact, the Leadership Empowerment Behavior scale revealed that of the 500 nurses who responded, 86% believed they did not receive encouragement and the support they need to try out new ideas during the pandemic.

Furthermore, doing critical assessment of the raw data, various nursing engagements on the field, and analysis it appeared the nursing leadership became more autocratic and unconcerned about their feelings, skills, and productivity; 78% of the nurse respondent felt their managers were not willing to risk anything on their part because it appears they were not prepared, some were incoherent, unconcern and lack of straight-forward communication system. In that case, then there was no leadership during the heat of the crisis.

Data obtained went through both internal and external validity to optimize validity following the order of identification, collection, clean (validity), analyze, and interpret [52]. The study reached out to 1500 nurses who worked in the Upper Bronx of New York City, with 500 nurses responding for a sample size of 500 (n = 500). Five hundred nurses who worked during the pandemic period responded to the online survey questionnaire in a span of 4 weeks. With a confidence level of 95% with a real value within ±5%, a sample size of over 306 was needed based on a nurse population of 1500 with a 3.51% margin of error. Purposive sampling was used where a set of criteria were applied to select participants, which included experience in the nursing profession for at least 1-year and having served during the COVID-19 pandemic in full capacity. The research setting was an online survey where the questionnaire was given to the participants via email for the flexibility and safety of respondents.

5. Study Implication for Nursing Practice

Burnout lowers the nurses' quality of life, their job performance level, and their commitment to the organization which increases their intention to leave their job [52]. Post-COVID-19 effects have seen high employee turnover rates, and this has negatively affected the quality of nursing care delivery [53]. The aftermath of the COVID-19 pandemic has not seen any improvement in nursing staffing across the country [53]. Many hospitals are experiencing higher workloads because most nurses have left the bedside and now pursue travel jobs because they want to get rid of their stressful environment [54]. Inferring from **Figure 3**, The Burnout Effect on Nurses during the Pandemic graph; the data obtained (the light-blue line) shows that burnout had a great impact with a complete dissociation of nurse leadership.

The nurse respondents did not feel they were effective enough in dealing with nurse burnout during the pandemic. The data collected show also that the pandemic led to most of the nurses experiencing workload stress and emotional exhaustion, which affected their ability to provide the best quality of care to the patients. (**Figure 4**) The nurses engaged in overtime to a significant extent, increasing

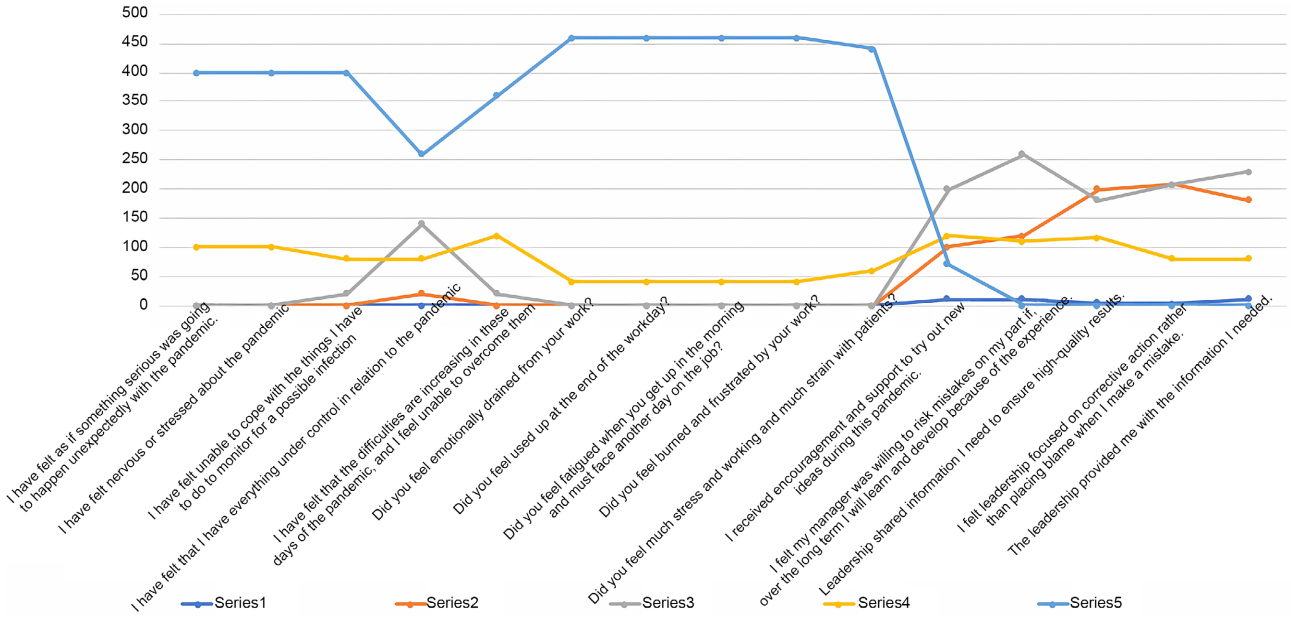

Figure 3. Nursing leadership and burnout influence.

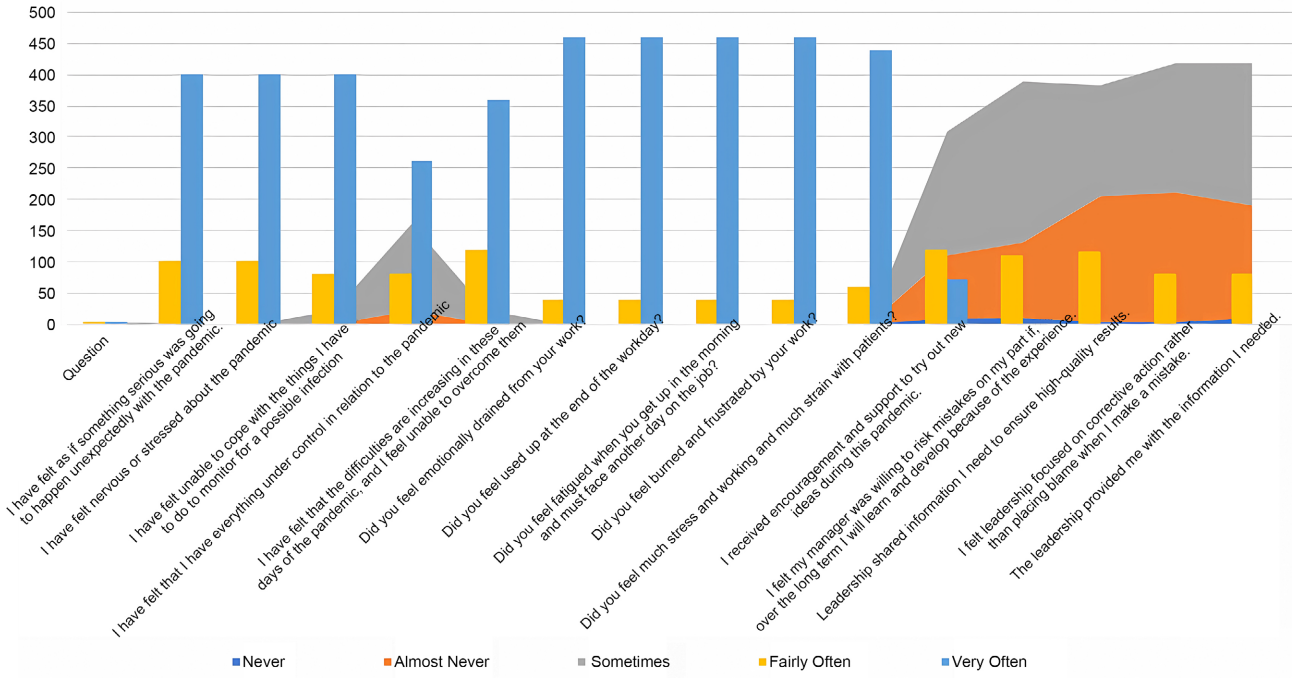

Figure 4. Nursing burnout responses and leadership impact.

their sense of stress during work. When their efforts were not adequately rewarded or recognized by the leadership or management, their stress increased due to a lack of positive support from the upper management [50]. This implies that leadership has a very important role in enhancing the performance of nurses during times of crisis, like the COVID-19 pandemic [50].

Leadership must maintain coordination between management and staff and ensure that the work environment is safe where uninterrupted care can be deli-

vered to patients [51]. Short staffing leads to more burnout among nurses as they must call for assistance frequently or work for a limited time with a larger number of patients [55]. Leadership needed to show more sensitivity towards the stress experienced by nurses during COVID-19 and ensure access to necessary resources or provide adequate compensation to reduce perceptions of work stress and burnout among nurses. This will also ensure staff retention and reduce the attrition rate among nurses [19]. Nursing leaders can help overcome the gap between practice and policies to ensure that the entire team follows standard practices without over-pressurizing nurses with their job roles and ensuring that adequate staffing is available to cater to stressful situations, without having existing staff working regularly beyond their normal working ration [11].

6. Discussion and Conclusion

This study revealed that nurses suffered high levels of burnout during the COVID-19 pandemic and received very little support from nursing leadership. Nurses participating in this study experienced burnout and did not experience nursing leadership impact on reducing burnout. The results obtained in the study strengthen the research purpose in understanding the impact of nursing leadership in reducing nursing staff burnout. This chapter will discuss the main findings from the research project and present recommendations for future research. It will help us understand the purpose of the research and the role nursing leadership plays in reducing nursing staff burnout during pandemics. It will draw a correlation between the result sections and interpret the findings for an in-depth understanding. Higher levels of burnout in the respective nursing organizations of participating nurses can be related to pre-COVID-19 factors such as poor work conditions, work overload, unfairness, lack of resources, low collegial support, and uncooperative, unsupportive leaders, as well as personal and other social and community-related factors [51]. These factors can be limited to personal and organizational factors that may show patterns of high workload, low staffing levels, long working shifts, lack of sleep or sleep deprivation, low self-control, and lack of inspiration or motivation [15].

Leadership and management are important in giving employees a sense of job security and safety and ensuring staff support during difficult situations, thereby preventing burnout among nurses [56]. The main issue identified in this research was whether effective leadership influenced burnout during the COVID-19 pandemic situations. According to Wei *et al.* (2020), competent leaders can reduce nurse burnout by empowering and promoting nurse engagement, applying authentic and transformational leadership, and creating a healthy work environment [50]. This was not revealed in the study. Most nurses felt nurse leadership did not engage or empower and were not transformational. The study tries to explain whether poor leadership can be considered a source of workplace stress and can lead to excessive workload and burnout among nurses. It is an important factor to be considered to ensure the smooth and uninterrupted deli-

very of healthcare services and optimal performance of healthcare professionals during times of crisis, like the pandemic [8].

Various theories were identified for this research purpose. Burnout theory shows that factors like organizational resources (leadership) and personal resources (psychological capital) have a direct influence on burnout, which in turn can impact the profession and mental health of nurses [18]. The relationship theory of leadership shows how leaders play an important role in the workplace by supporting and mentoring nurses to meet their performance objectives and ensure a healthy and safe workplace environment [20]. Maslow's hierarchy of needs theory has shown how the needs and expectations of staff need to be addressed at various levels to maintain their motivation and engagement with work and prevent burnout and work stress, especially during crises like the COVID-19 pandemic [21].

6.1. Leadership Support and Competencies

Nurse leadership plays a significant role in alleviating nurse burnout. Wei *et al.* (2020) concluded in their study that competent leaders can reduce nurse burnout by empowering and promoting nurse engagement, applying authentic and transformational leadership, and creating a healthy working environment [50]. Most of the nurses participating in this study expressed little or no nursing leadership engagement [50]. Moreover, they did not feel they received the moral and leadership support that they wanted to feel. They felt the working environment was not safe enough due to a lack of supplies; some participants were told by nursing leadership to reuse their face shields, N-95 masks, and other personal protective equipment.

Cavanaugh *et al.* (2020) pointed out that effective leadership can reduce burnout risks and promote resilience among nursing staff, while poor leadership can lead to workplace stress and anxiety [56]. Leadership plays an important role in the motivation of the workforce and helps them adapt to situations of stress while maintaining quality and continuity of care [57]. As the findings pointed out, leadership is necessary for the performance and job satisfaction of the nursing workforce and their ability to address their job roles efficiently. Resourcefulness, sensitivity, and adequate compensation by leaders were found to reduce workplace stress among the nurses in this study [57].

6.2. Coordination with Top Management

Coordination between leadership or management and the nursing staff is necessary as a supporting factor to help the workforce have access to the necessary resources and support, achieve positive outcomes, and perform optimally. This helps overcome workplace stressors through better evaluation and knowledge of situations and providing support structures to meet crisis situations like COVID-19 [36]. Coordination can be developed by sharing information, knowledge, and feedback, which can further create trust within the workforce and de-

velop a healthy workplace environment. Such coordination is needed during crisis times, and teamwork is of optimal importance [25].

6.3. Working Hours and Staffing Shortages

The study pointed out that the most participating nurses did overtime and worked beyond their normal hours during the COVID-19 pandemic. Long working hours can lead to anxiety and fatigue, and therefore burnout among nurses. Such situations have related to physical or mental health problems that affect the productivity of nurses [39]. The additional workload can lead to perceptions of stress and aggravate crisis situations. When nurses must forgo personal and family commitments or holidays to cater to additional work requirements, it further creates perceptions of anxiety and stress and affects performance [39]. Early staffing intervention strategies can help in dealing with staffing shortages. Inadequate or staffing shortage is one of the biggest factors that cause burnout. It directly causes higher workloads and creates a poor social climate where employees do not have access to necessary support and adversely affects nurses' ability to provide optimal quality care to each patient. This also creates risks of clinical errors, thereby impacting patient outcomes and leading to nurses' emotional exhaustion [15]. During COVID-19, departments experienced a significant shortage of staff for which they had to seek assistance from colleagues. This predisposed nurses toward workplace stress and burnout as most nurses had to work overtime throughout the pandemic situation [25].

6.4. Teamwork

Nurses feel that teamwork is an essential factor in cohesion, especially during crises like the COVID-19 pandemic when there is a shortage of staff and access to resources [58]. In times of crisis working as a team is very vital in reducing nursing burnout, especially in a unit of new and novice nurses [58]. Teamwork enhances nurse workloads, helps in the sharing of knowledge and resources, and develops a synergistic relationship within the nursing department. Poor team relationships lead to job insecurities and limit access to support, which can adversely impact care quality and patient safety [15]. Teamwork is an important professional competence of nurses. Through leadership, teamwork can be developed within the workforce [56].

6.5. Rewards and Recognition

A sense of positive reward and recognition can help to enhance perceptions of competency and satisfaction from the job by addressing the various categories of Maslow's needs [18]. Through rewards and recognition, employees can be motivated to continue with their effort and develop a perception of self-accomplish and belonging to their job roles [59]. Poor systems of rewards and recognition by management often lead to nurses feeling underappreciated and unmotivated, which intensifies the intention toward attrition, especially when better job op-

portunities present themselves. Some of the nurses who responded commented that they received massive social and community recognition as their own nursing leadership failed to reward them or recognize their efforts during the COVID-19 pandemic. Providing rewards and recognition to frontline staff is one management practice found to be in use by hospitals that performs higher in hospital-acquired infection prevention [60].

6.6. Access to Resources

During the pandemic situation, access to necessary resources such as personal protective equipment (PPE) and medical equipment is necessary for the optimal performance of the healthcare organization and during the pandemic the WHO warned that severe and mounting disruption to the global supply of PPE was putting nurses and other clinicians live at risk [61]. Inadequate resources can lead to stress in the healthcare system that creates flaws into healthcare support outcomes [24]. Effective leadership can ensure access to the necessary resources for the best practice outcomes for nurses and help healthcare organizations respond to crisis situations through an efficient support structure.

6.7. Workplace Safety

Concerns about workplace safety are an important factor that was also revealed in the findings as leading to workplace stress and burnout among nurses and other healthcare professionals. During situations like the COVID-19 pandemic, there is strong fear and concern among healthcare professionals about their safety and the safety of their families from the transmission of the virus from patients. This concern often led to a predisposition toward anxiety and burnout among nurses [25]. Constant concerns about personal and family safety often cause mental health issues and fatigue, thereby causing absenteeism among nurses [25]. The study shows the need for efficient leadership and management practices to be followed during crises, such as the pandemic caused by COVID-19, to help healthcare professionals work at their optimal level and overcome risks of stress and burnout [62]. The performance of healthcare professionals and their health and well-being are crucial for the healthcare system to the public during such situations, thereby showing the significance of addressing risks of burnout among nurses and the importance of leadership to mitigate such risks.

7. Study Implication for Practice and Future Projects

The findings of this study provide insight into how nursing leadership can address nursing burnout and provide a framework by which nursing leadership must critically look at. I can put it in an acronym; R.E.A.C.T. Nursing leadership must be "R-Ready". The COVID-19 affected many countries, and it affected every area of the economy and the profession [2]. Preparedness is the state of readiness to respond to a disaster [2]. Variations to its response have been associated with preparation. Preparedness is the state of readiness to respond to a

disaster. This phase has to do with having the imagination and experience to know what will be needed to protect people when disaster hits and plan for it. The preparedness planning cycle includes planning, organizing, equipping, evaluation, assessment, taking corrective action, then more planning, and preparation [63].

Nursing management and leadership must "E-Engage". Lack of coordination and strategic communication can affect emergency response as well as its recovery. Nursing leader ought to engage clinical, non-clinical, local, state, and federal agencies in responding to disaster [63]. Nursing leaders must engage nursing staff, to promote staff mental health. Emergency preparedness requires an understanding of human behavior and a working knowledge of effective interventions for anxiety, stress, depression, and other mental health condition [64].

Management must "A-Assess" situations and mitigate accordingly. Mitigation is a sustained action to reduce or eliminate the risks of a disaster (FEMA, 2020). With good mitigation, disasters do not happen. Mitigation is about having the non-story. In some ways, mitigation requires the greatest foresight and understanding of the risk factors leading to a disaster [65]. The pandemic caught most departments unaware, and some lacked the ability to intervene due to inadequate assessment.

Management must institute a command center that wills "C-Communicate" interventions to the front lines. Some nurses complained communication was a problem and that nursing leadership was not engaging them. Communication must be specific, clear, and contain detailed protocols to follow [66]. Setting up these protocols in advance and making them available and familiar to the public may alleviate some of the stress of uncertainty [66].

Nursing leadership must "T-Track" progress and interventions. This cycle emphasizes the need to constantly re-evaluate the plan and to upgrade and change it based on new experience and after-action analysis from previous disasters. This evaluation will enhance effective delivery. Future projects can be developed to understand how leadership and management strategies can be applied in nursing practice to protect nursing professionals from burnout during crisis situations. COVID-19 is an ongoing crisis, with the possibility of new waves of infection spreading globally, which can cause further stress on healthcare organizations [65]. Such stress creates new risks of burnout among nurses if issues are not addressed properly and in a timely manner.

7.1. Plan for Dissemination

The results and findings from this study and their implications for nursing practice, nursing management, and nursing leadership will be disseminated through academic publication of journal articles that can be accessed by all professionals and thereby be used as an evidence base to inform professional practice. The findings can be presented to any hospital interested, especially the Montefiore Nursing Department where most data were acquired, to communicate how the data collected has been used to arrive at key conclusions and recommendations

and how the department can be helped to overcome issues of burnout among nurses and poor leadership and management support during crisis situations [66].

7.2. Sustaining Change

This research is expedient in dealing with change in nursing practice. Our system of operations is being tested daily. What systems work better during a crisis? Both external and internal stressors play a role in establishing a sustainable system that can deal with the effects of stressors. The key to transformational change or any change is to have leadership that can understand it, support it, explain it, and move the organization to commit to it [67]. Crises can affect the organizational culture and nurse leaders must be equipped to provide support. The organization must be ready for crisis situations and look for ways to improve, promote, and support ways to enhance quality, patient care, and efficiency in care delivery [67]. Change in nursing practice, management, and leadership can be sustained by incorporating the recommendations into nursing policies that will outline the maximum hours of overtime work that can be allowed for the nurses, minimum staffing levels that need to be maintained to prevent understaffing and ensuring access to necessary resources [68]. Effective policies of reward or recognition should also be kept in place to ensure the hard work of the professionals is always given adequate exposure and recognition to motivate them continuously [69]. These policies will ensure that practices are followed throughout the organization and across all levels.

7.3. Recommendation for Future Projects and Practice

The literature on burnout from this study and related studies implies that there are areas that need attention and research [70]. Several studies and reviews have considered the relationship between nursing leadership and nursing staff burnout [68]. Burnout is a nursing practice outcome and there are reported relationships between nursing leadership and low nursing staffing levels [68]. The findings from this study, therefore, recommend that nursing leadership must take responsibility for creating a supportive working environment to reduce susceptibility to workplace burnout and address the mismatch between nurse leadership and nursing staff burnout [71]. Work-life interference also may influence staffing problems, but nurse leaders must ensure adequate staffing among nursing units [71]. Low staffing ratios affect staffing and strain working conditions.

Moreover, to inspire staff, nurse leaders must reward and recognize staff members that go beyond their scope of practice. The absence of nursing staff recognition can lead to compassion fatigue, burnout, job dissatisfaction, and increased turnover rates, resulting in low staffing levels [72]. Giving rewards and recognition to the workforce could have helped motivate them during the time of crisis. Nurse leaders must implement crisis intervention awards, which can motivate

nurses to overcome compassion fatigue and nursing burnout during crises like the pandemic [72]. Nurse leaders must also implement policies that address nursing burnout. These policies will address systematic nursing supervision, basic nursing care, and safe staffing ratios that may be adjusted during a crisis [73]. Also, implementing educational policy strategies can help in reducing staffing burnout.

Community support is vital in dealing with external stressors like the COVID-19 pandemic. Community support creates social support that can reduce nurses' psychological distress [74]. Various world healthcare organizations, nonprofit organizations, governments, and other nongovernmental agencies responded well by supporting clinicians and major healthcare organizations. Therefore, as an organization, we must build a social support system for coping with situations such as the pandemic. During the COVID-19 pandemic, special attention was paid to measures that could stop the spread of the disease. Therefore, leadership can champion community engagement and offer community support to support staff during the ongoing pandemic and other future crises [74].

Future research can focus on factors that enhance the emotional and psychological resilience of the nurses or their psychological capital to help them overcome perceptions of burnout. Nursing leaders can identify various strategies that can improve psychological capital which can help nurses during stressful situations like COVID-19 to mitigate risks of burnout and enhance their self-efficacy [75]. This can also help nurses act as nursing managers or leaders to guide and support others and thus ensure their emotional and physical well-being while maintaining the quality of care. Studies on nursing leadership and management can also increase the evidence base for enhancing the efficacy of nursing leaders to support the workforce during times of stress and maintain healthcare performance [75]. The findings can benefit healthcare organizations, healthcare professionals, the public, and the government through the public welfare outcomes of the research.

8. Conclusion

There was a correlation between effective nursing management and a reduction in nursing burnout. The effect of nursing burnout can be managed or prevented by nursing leadership most especially during crises and pandemics if appropriate and efficient leadership strategies are implemented as captured in this study. The study found a significant association between the competencies of nursing leaders and managers and the support given to nurses to overcome perceptions of burnout and work stress. It was identified that effective leadership practices could help nurses work optimally during the pandemic crisis, while poor leadership and support to staff created higher risks of burnout. Various factors were also identified that related to leadership outcomes of burnout among nurses, which should be addressed while managing and leading nursing professionals during similar situations. Future studies can be done on how the resi-

lience and psychological capital of staff can also be used to further mitigate the risk of burnout.

Conflicts of Interest

The author declares no conflicts of interest. Permission was sought to use data, tools, and theories to obtained desired outcomes for this research.

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