

The Impacts of Nurse Staff Burnout on Patient Satisfaction

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Abstract

This study aims at identifying how leaders can mitigate the symptoms of burnout namely emotional exhaustion, lack of accomplishment and depersonalization in nurses. The problem identified was the ongoing nurse burnout which was as a result of working long shifts daily with no time to rest, which in turn affected the quality of patient care and the health of the nurses. The suggested solution incorporated the Maslach Burnout Inventory (MBI) tool with SBAR communication to assess the nurses' workload, measure their emotional exhaustion and arrange the shifts accordingly. The implementation process aimed at building the required leadership behaviors to minimize the nurse burnout. This involved having to get the necessary approvals to put the strategies in place. In order to ensure that the process is as effective as possible, the author compiled a literature review of evidence-based practices that could be adopted from other organizations. There was a meeting held with all the stakeholders to discuss and come up with a way on how this strategy would influence the work environment. Then the leader empowerment practice policies were developed in order to facilitate the process of the change in the organizational culture. A two-week training session was conducted for the nurses where they were taught the symptoms of burnout, the ways and tools on how to identify burnout and practices that can facilitate change. The effectiveness of the project was assessed by the successes achieved in increasing collaboration and cooperation between the stakeholders and the lessons learnt that may help in future projects..

Keywords

Burnout, Nurses

1. Introduction and Background

The health care workers are one of the most affected groups in the society and are at a high risk of burnout. As per the findings of Dubale et al. (2019), burnout prevalence is high among physicians at 70% while that of nurses is at 50% in sub-Saharan Africa. Likewise, researches done in the United States have revealed that 35 % of hospital nurses and 54 % of physicians experience burnout which is defined as a state of emotional and physical exhaustion brought about by working under conditions that are demanding over a long period. Burnout has an impact on the quality of work, communication with colleagues, well-being and satisfaction of an employee. There has been a growing concern on the subject of burnout particularly in the last decade. The topic was embraced in the late seventies and to date is still a critical issue in the health care organizations (Maslach & Jackson, 1984). Burns' concept

of satisfaction as applied to organizational studies involves the identification of a problem and the need to do something about it as well as the use of workshops and training in dealing with the issue. There has been a growing presence of workshops and interventions for managers at the organizational level. For instance, Maslach and Jackson (1984) pointed out that burnout has become a large scale issue in corporations. Health care providers are a high-risk group for burnout. According to Dubale et al. However, research on burnout at the organizational level has yet to be discussed. There is no clear information on the percentage of people affected by burnout in health care organizations, and more needs to be done. There are also little data on critical criteria outcomes such as personal health and quality of work (Maslach & Jackson, 1984). The lack of facts about burnout makes it difficult for managers to handle it at the organizational level. Developing standardized instruments to measure burnout (such as the Maslach Burnout Inventory, or MBI) and creating a multifaceted approach to dealing with burnout is essential to help managers deal with this problem at the organizational level.

The concept of burnout dates to the work of Freudenberger (1977) and Maslach (1976) and has been the focus of scientific research on health issues and their implications. Burnout results from intense stress among an organization's workers and their continued response to the underlying strain. Several factors, ranging from environmental factors to interlinked concepts of mediation, socialization, and human interaction, have previously led to burnout among workers. Ultimately, persistent stress adversely affects the physical well-being of individual workers and their surroundings.

Previous research has identified critical symptoms of work-related burnout. Typical examples include exhaustion, low self-esteem, and a decline in performance among workers. According to Maslach and Leiter (2017), burnout is prevalent in human service professions where one deals primarily dealing people, leading to emotional fatigue, depersonalization, and decreased individual performance. They determined that the characteristics of burnout syndrome drain a person of the energy needed to perform tasks effectively and lead to further feelings of frustration and tension caused by perceived failure.

In the organizational setting, burnout is examined using the dimensions of turnover, job satisfaction, and work-related stress. For example, burnout among nurses is associated with low turnover due to exhaustion and lack of motivation (Maslach & Jackson, 1984). In addition, low job satisfaction contributes to burnout due to the many stressors in nurses' lives. In the 1970s, the topic of burnout became increasingly popular due to numerous articles (Maslach & Jackson, 1984). Managers concerned with burnout also held special sessions to address the serious problem affecting productivity in health care organizations.

The nursing profession has become overly demanding and stressful due to the associated intensity and variety of underlying risk factors, work environment, and various situations nurses experience (Jacobs et al., 2016). For example, nurses are expected to provide patient care with empathy and maintain intense focus in a stressful environment. Dimunova et al. (2018) found that some of the most prevalent risk factors of burnout syndrome among nursing professionals comprised excessive workloads such as time constraints, shift work, and the nature of the department. Other risks included organizational culture (in the form of relationships between workers and conflict resolution) and the lack of sufficient resources. These factors contribute significantly to the decline in nurses' physical, psychological, and emotional energy. Consequently, they may become cynical about patients and colleagues (Mudallal et al., 2017). In this regard, nurses need to find a balance among the factors they encounter daily. As a result, burnout is common among health professionals, particularly nurses. De Oliveira et al. (2019) indicated that this problem must be seriously addressed; if the pain is not managed, nurses and their patients will suffer. This study will highlight the strategies nurse leaders and hospital administrators use to recognize burnout in the workplace. In addition, it will encourage nurse leaders and hospital administrators to understand workplace stressors as essential aspects that can form the cornerstone of practical solutions to the problem of nurse burnout (Prapanjanroensin et al., 2017). Finally, this study will explore the issue of nurse burnout in health care organizations, identify why it occurs, and develop solutions to overcome it

2. Statement of the Purpose and Literature Review

2.1. Statement of Purpose

This study explores the strategies leaders can adopt to reduce the emotional exhaustion, lack of personal fulfillment, and depersonalization that characterize nurse burnout. Nurse leaders and hospital administrators can influence nurses' behavior. Power in the work environment means obtaining, organizing, managing resources, and supporting organizational goals. Moreover, at the core of empowerment in the workplace is the ease of access to needed help and support to boost performance and create learning opportunities. This study's results will promote and sustain effective leadership and management of nurses who are committed to strong relationships and effective communication within the health care facility to mitigate the consequences of patient outcomes caused by burnout among nurses (Van Bogaert et al., 2017).

2.2. Practice Change, Quality Improvement, or Innovation

According to Mudallal et al. (2017), excellent leadership can be critical to reducing burnout, whether through leader/manager inspiration, regular feedback, or effective communication. This project aims to develop practices that empower leaders to minimize nurse burnout. The focus is on emotional exhaustion, lack of personal fulfillment, and depersonalization. Leaders can use several targeted interventions and practices to achieve this goal. The first component is to ensure that nurse leaders and hospital administrators promote meaningfulness in work by emphasizing leadership practices that give significance to nurses' contributions and enhance their sense of self-worth.

These leadership practices include: 1) setting understandable, logical, and practical expectations for all nurses and ensuring that each nurse understand; 2) ensuring that the nurse has the resources necessary to meet these expectations;

3) promoting mutual support and respect within the workforce; 4) providing regular continuing education to staff to improve and maintain their skills; 5) evaluating each nurse's contribution to the health care facility; 6) encouraging work-life balance by assisting with workload assessments for those who feel pressured; and 7) supporting physical activities and breaks during work hour.

The second component is creating opportunities for nurses to participate in decision-making processes and allowing them to share their views and opinions. The third component is recognizing and valuing high performance by encouraging leadership, building confidence in nurses' skills and abilities, and celebrating their accomplishments. The fourth component is facilitating the achievement of organizational objectives, which means improving nurses' knowledge and skills while providing the necessary resources for good performance. The fifth component is to avoid bureaucratic hurdles and enable creativity and effectiveness. Finally, there is a positive relationship between leader empowerment practices and nurses' sense of empowerment, reducing workplace tension and improving patient care quality.

A specific approach to managing burnout in health care institutions is to promote a healthy organizational culture that fosters openness and collaboration. Burnout can also be prevented by embracing humor in the workplace and celebrating individual accomplishments (Nantsupawat et al., 2017). Furthermore, developing a culture where nurses help each other with complex tasks can promote a caring attitude and tolerance. Therefore, nursing leaders need to create an enabling environment to increase nurses' job satisfaction to reduce the possibility of burnout.

Nurses have reported the need to adopt a positive attitude that leads to an expansion of their authority. Regardless of the nurses' level of education, the physician-nurse relationship and autonomy are the primary sources of professional dissatisfaction and frustration, resulting in burnout. Moral distress occurs when nurses find it difficult to act according to their morals due to existing barriers. Burnout among nurses is closely associated with long hours, rotating shifts, and

cares for critically ill patients. Some employee resources can help reduce burnout, particularly establishing wellness clubs in the workplace, electronic coaching, yoga, and educational seminars. Nurses should also be encouraged to delegate work when possible.

A change in practice must address the issue of burnout in organizational settings. The primary organizational factors described in Canada's National Standard for Psychological Health and Safety in the Workplace lead to workplace burnout in many organizations (Brown & Quick, 2013). For example, some employees suffer burnout when they feel they are not appreciated enough or their contributions to the organization go unnoticed. Employees may also burn out if they experience work overload or have role conflicts in the organization. Health care organization managers can reduce workplace stressors by implementing a psychological health and safety management system that continuously improves workplace conditions while incorporating workers' safety and psychological health.

Continuous improvement of this system is primarily about adequately monitoring senior leadership's safety and psychological well-being, which helps to identify life and work stressors that lead to early burnout. Moreover, frontline management is critical in reducing burnout among nurses. Managers should implement the Psychological Safe Leader Assessment (PSLA) in nursing to identify areas for improvement.

Practical changes include introducing key instruments to measure nurse burnout levels, such as MBI and the Nursing Activity Score (Brusaferro et al., 2000). In addition, quality improvement should focus on adopting nurse-sensitive care measures and creating effective teams with authentic leadership. Innovations that can be implemented in this case involve adopting the situation, background, assessment, and recommendations process (SBAR) approach to communication and reducing nursing shift length.

2.3. Selected Practice Change

The selected practice change is the adoption of the MBI, which measures the level of burnout in nurses. This assessment instrument comprises three subscales: personal accomplishment, emotional exhaustion, and depersonalization (Brusaferro et al., 2000). The literature supports the rationale for choosing this tool. Evidence-based literature has shown that emotional exhaustion contributes to most burnout in nurses. Therefore, the MBI can help improve the quality of nurses' work performance. In addition, research has shown that nurses with low levels of emotional exhaustion and depersonalization and high levels of personal accomplishment show more support and empathy toward their patients, positively affecting patient outcomes (Brusaferro et al., 2000).

Another critical tool to reduce burnout is the Nursing Activities Score (NAS), which measures nurses' workload and is used in ICU settings to measure activities and nursing time. Given that Greives (2016) indicated that the mean work-

load score for this instrument is 56, it should be used to determine burnout levels among nurses.

2.4. Quality Improvement

Quality improvement can improve by adopting strategies that enhance nurse resilience. These strategies include coordinating and overseeing treatment and care provided to the patients (Brown et al., 2018). Nurses should experience stability by creating support systems that foster a culture of mutual openness and address nurses' life stressors. Management should enable robust responses to patients' and nurses' unforeseen and unexpected demands.

Quality improvement is critical to reducing risk in patients. Continuing education for nurses has a positive impact on enhancing quality care. Training also helps nurses participate effectively in teams (Greives, 2016). Moreover, patient safety depends on well-trained individuals with clear roles and responsibilities on a team. Therefore, adopting nursing-sensitive care measures can help reduce nurses'

burnout and improve patient-centered care. These measures focus on three areas: structure, process, and outcomes. First, structural indicators focus on nurse skill levels, supply, and education (Greives, 2016). Next, process indicators measure nurses' nursing interventions, patient assessment, and job satisfaction. Finally, outcome indicators emphasize patient outcomes, such as increased patient safety and fewer medical errors.

2.5. Innovation

Management should encourage the establishment of wellness clubs where nurses meet to share experiences to cope with stressors that lead to burnout among nurses. These clubs are important because they can foster strong relationships in the workplace. Key innovations that can help reduce nurse burnout include shortening shifts, adopting the SBAR communication approach in the hospital environment, and implementing authentic team leadership that addresses nurses' concerns. In addition, the SBAR process can provide an accurate assessment evaluation of workload, which may help achieve an effective division of labor among nurses.

Given the growing concerns about the impact of burnout syndrome on patient safety and experience, there is a need to apply various principles of mental hygiene to ensure a meaningful work-life balance. Quality improvement is vital to implementing and evaluating the multiple measures advocated and their impact on promoting a healthy work environment, preventing burnout syndrome, and promoting a culture of resilience (Dyrbye et al., 2017). Therefore, quality improvement provides a systematic and formal mechanism for analyzing nurses' care and appropriate interventions to improve nursing practice by addressing burnout.

Furthermore, Mudallal et al. (2017) indicated that practice change, quality improvement, and innovation could adequately address nurse burnout syndrome. This study explores strategies leaders can adopt to reduce the emotional exhaustion, lack of personal fulfillment, and depersonalization that characterize nurse burnout. The results will contribute to evidence-based interventions that can be employed in meaningful ways to address burnout syndrome in nurses.

Nurse leaders and hospital administrators can influence the behavior of nurses. For example, Mudallal et al. (2017) suggested that leadership is vital in creating a positive work environment. Strong leadership can enhance work's usefulness, empower workers to participate meaningfully in decision-making, and increase workers' self-confidence to improve performance, enable goal attainment, and provide autonomy.

Empowerment in the work environment means obtaining, organizing, and managing resources to support organizational goals. The core of workplace empowerment is the easy access to help and support to boost performance and provide learning opportunities. Following Van Bogaert et al.'s (2017) recommendations for mitigating the impact of nurse burnout on patients, this project will focus on encouraging and sustaining effective leadership and management of nurses committed to strong relationships and effective communication within the health care facility.

This study will highlight the strategies used by nurse leaders and hospital administrators to recognize burnout in the workplace. The results will encourage nurse leaders and hospital administrators to understand workplace stressors as essential aspects that can form the cornerstone of practical solutions to the problem of nurse burnout, as previously reported by Prapanjaroensin et al. (2017). This study will further explore the issue of nurse burnout in health care organizations, the associated risk factors, and recommend solutions.

Mudallal et al. (2017) indicated that excellent leadership could reduce burnout in the presence of an inspiring leader/manager, regular feedback, or effective communication. This study aims to develop leader-empowering practices that reduce nurse burnout by focusing on issues such as emotional exhaustion, lack of personal fulfillment, and depersonalization. Leaders would use several targeted measures and methods to achieve the goal. The first component is to ensure that nurse leaders and hospital administrators promote meaningfulness in work by using leadership practices that give meaning to nurses' contributions and enhance their sense of self-worth.

2.6. The Rationale for Practice Change, Quality Improvement, or Innovation

The choice of the MBI scores for nursing activities to reduce burnout among nurses was made based on historical data noted in the literature. The tools have been applied successfully to identify nurse burnout and avoid it through preventive measures.

Teamwork is needed in health care to improve patient outcomes and reduce workload. A nurse should work in their chosen field because clarifying roles can help significantly reduce burnout. Nursing-sensitive care measures are supported in the literature as a standard approach to reducing burnout and increasing positive patient outcomes.

Communication is critical in nursing and can be improved by using the SBAR approach. In addition, SBAR can help assess workload and allocate sufficient staff. Because nurse burnout is characterized by emotional exhaustion, lack of personal fulfillment, and depersonalization, it can interfere with patient safety (Liu et al., 2018).

Emotional exhaustion causes exhaustion in the body and mind (Khoo et al., 2017). The lack of personal fulfillment can produce feelings of incompetence and inability to perform everyday tasks. Depersonalization also leads to losing touch with patients. Therefore, burnout decreases the quality of care, resulting in more hospital-acquired infections and, ultimately, more patient deaths (Shenoi et al., 2018). Burnout also triggers job dissatisfaction and higher nurse turnover, leading to a shortage of nurses and even more harm to patients (Hall et al., 2016).

2.7. Review of the Literature

From the analysis, leader-empowering practices are the most effective means of reducing burnout among nurses. Mudallal et al. (2017) highlighted the role of nurse leadership in reducing stress and enhancing the positive qualities of work environments that motivate and empower nursing staff. In addition, leadership practices reduced burnout and turnover and improved the quality of patient care. These findings emphasize the importance of leadership in creating a positive workplace, increasing subordinate engagement, enhancing the meaningfulness of work, reducing burnout, and improving the quality of the health care provided (Mudallal et al., 2017). Therefore, using Lewin's model of change, the proposed policy development represents a leader-empowering practice that involves the nursing staff in decision-making.

2.8. Summary of the Evidence

The selected literature contained critical evidence that supported this study. The evidence focuses on critical areas such as the effect of burnout on patient outcomes, improving quality care, and best nursing practices. Findings from all authors agreed in these areas, and most studies confirmed that nurse burnout is related to patient safety. In general, an association was found between poor well-being, high levels of burnout, and medication errors (ME; Pradas-Hernández et al., 2018; Shenoi et al., 2018). Other studies found a connection between nurse well-being and adverse patient events (Khoo et al., 2017). According to Jarrad et al., 2018, nurses became more erratic when they suffered from high

burnout. Therefore, these studies indicate that nurse well-being and burnout are significant determinants of patient safety (Liu et al., 2018).

Further research is needed to understand how these factors are related. Specifically, an explanatory model that shows the relationship between burnout and nurses' well-being could enable the implementation of successful interventions. For example, de Oliveira et al. (2019) found that most depressed nurses also suffered from burnout, leading to their depression. If these findings can be integrated into a single model, there may be a reduction in burnout among overworked nurses (Jacobs et al., 2016). It follows that burnout adversely affects the nurses' work performance. Nurses that become withdrawn and dissatisfied with their work may administer a lesser quality of care and make more MEs.

Brown et al. (2018) examined the impact of resiliency on nurse burnout, concluding that burnout severely impacts the nursing workforce, leading to higher costs in health care organizations due to absenteeism and low turnover. The authors also indicated that burnout leads to poor patient outcomes. Similarly, using thematic analysis, Cishahayo et al. (2019) found that burnout negatively impacts patient outcomes. Their findings showed that burnout was high among the 12 participants and that five themes emerged, including variability, erratic, and incomplete care. Finally, Deldar et al. (2018) identified a negative correlation between burnout and resiliency. This correlation is informative in determining the impact of burnout on patient care.

Dyrbye et al. (2017) established similar conclusions, indicating that burnout hurts nurses' performance. In addition, Gutsan et al. (2018) found that the nurse-patient ratio affects nurses' emotional, psychological, and mental well-being and significantly impacts productivity. This research is critical in determining the factors that lead to patient burnout and poor health outcomes. Finally, Escrivá Gracia et al. (2019) concluded that the total number of MEs was 1.93%. This information provides facts about MEs related to burnout among nurses.

Improvement of Quality Care

Connelly (2020) suggested adopting Lewin's change management model to effectively enhance leadership skills and reduce burnout rates among nurses. The model is critical for implementing change in health care organizations. Gollwitzer et al. (2018) offered a means of reducing the stress among nurses associated with high burnout. De Oliveira et al. (2019) proposed three burnout interventions to support change and improve the quality of care and introduced the MCII self-regulation tool to reduce stress. This research is critical to improving quality care. Jacobs et al. (2016) also indicated that employment reduces stress.

Furthermore, Wondmieneh et al. (2020) argued that training and support are critical to reducing MEs. Their research links MEs to burnout and can help inform recommendations for quality improvement. Similarly, Khoo et al.'s (2017) research may contribute to quality improvement. The authors' presentation of the significant predictors of emotional exhaustion, closely linked to burnout, may enable its early detection and lead to quality improvement.

Wei et al. (2017) proposed an effective intervention to help the emergency department manage the impact of burnout on nurses. In addition, Liu et al. (2018) concluded that creating a better work environment and reducing workload can improve patient safety. These research findings are critical to providing quality improvement information and reducing burnout among nurses. Furthermore, Maslach and Leiter (2017) suggested that civility lowers burnout rates among nurses and improves patient outcomes. Finally, Márquez-Hernández et al. (2019) said improved knowledge could lead to positive behaviors that enhance care and reduce burnout.

Shenoi et al. (2018) offered a new dimension to this body of research by suggesting that female health care professionals are at a higher risk of burnout, which affects the quality of care. Their study provides information for gender improvements that may lead to lower burnout levels among women and better care. Waddill-Goad (2019) proposed creating more effective work processes and assigning appropriate workloads to reduce burnout in nurses. Moreover, Doré et al. (2017) suggested implementing participatory action research to enhance nurse empowerment. Finally, Albar Marín & García-Ramírez (2005) presented social support services in health care organizations to help reduce burnout in nurses and improve the quality of care.

Causes of Nurse Burnout

One of the most significant causes of burnout in nurses is stress. Ezenwaji et al. (2019) concluded that four demographic factors contribute to work-related stress, including sex, age, work environment, and work experience. These findings are helpful to this study because they can inform recommendations for improvement. Guo et al. (2018) suggested that the main predictors of burnout comprise resilience, marital status, alcohol consumption, job characteristics, and professional rank. This research is also influential in determining the causes of nurse burnout.

Hall et al. (2016) posited that poor nurse and patient well-being contribute to moderate and high levels of burnout. In addition, Mudallal et al. (2017) indicated that working conditions, demographic characteristics, and leader empowerment affect the prevalence of burnout. This research contributes to the understanding of the causes of burnout among nurses. Moreover, Jarrad et al. (2018) concluded that there were significant differences in compassion fatigue among nurses taking anti-anxiety medications, antidepressants, and sleeping pills. The findings support that anti-anxiety medications, antidepressants, and power drinks impact burnout among nurses.

According to Lahana et al. (2017), nurses' marital status, gender, and routine were risk factors for burnout. Kim et al. (2020) indicated that the quality of professional life influences burnout in nurses. Furthermore, Pearce et al. (2018) concluded that understaffing leads to burnout among nurses. Finally, Pradas-Hernández et al. (2018) suggested that low personal accomplishment, depersonalization, and emotional exhaustion contribute most to burnout. These findings were corroborated by Sillero and Zabalegui (2018).

Burnout and Nurses' Well-Being

According to Waddill-Goad (2019), compassion and care are core elements of nursing. However, self-care is a prerequisite for a person to care for others. Unfortunately, nurses struggle with mental self-care because they focus on physical care and their patients. Therefore, managing stress is critical to nurses' mental well-being and influences their ability to provide care and compassion (Gollwitzer et al., 2018).

In their study of essential nurses, Brown et al. (2018), as cited in Ezenwaji et al. (2019) found that loss of empathy, increased workday absenteeism due to physical pain, weight gain or loss, accidents, and emotional breakdown result from burnout and compassion fatigue. These consequences adversely affect the quality-of-care patients receive. The high levels of stress that nurses regularly face often lead to burnout, moral distress, and other detrimental effects that result in poor health outcomes for patients because nurses themselves are not healthy in the holistic sense of human well-being (Doré et al., 2017).

Burnout Nurse Workload

According to the federal and global health care regulations cited in Wei et al.'s (2017) study, the following nurse-to-patient ratios are recommended: 1:6 in medical-surgical and behavioral units; 1:4 in telemetry, intermediate care, step-down, and non-critical emergency units; 1:2 in intensive care, trauma, and post-anesthesia units; and 1:1 for patients under anesthesia. Unfortunately, the increased workload of nurses, the decline in nursing staff, and the high turnover rates among nurses in different health care facilities have caused the nurse-to-patient ratio to grow continuously over the past 20 years, resulting in hospital understaffing (Guo et al., 2018). Consequently, the quality of care provided at health care institutions has consistently declined, as evidenced by the ever-increasing number of MEs among health care professionals and the understaffing of health care administrators (Deldar et al., 2018; Pearce et al., 2018). For example, 2976 hospitals were fined for having nurse-to-patient ratios in their facilities (Gutsan et al., 2018). Fortunately, there is a strong link between burnout and resilience (Lahana et al., 2017).

Burnout and Medication Errors (MEs)

MEs are the third leading cause of death in American health care, resulting in 251,000 deaths yearly (Escrivá Gracia et al., 2019). These errors occur in 5% - 25% of treatment sessions between patients and medical professionals, including nurses (Wondmieneh et al., 2020). Consequently, MEs account for 20% of litigation involving hospitals and health care professionals (Escrivá Gracia et al., 2019). The most common types of MEs include 1) monitoring, 2) prescribing, 3) system, 4) transcription, 5) administration, and 6) dispensing (Wondmieneh et al., 2020). Unsafe use of dangerous medications prescription MEs with a high probability of patient mortality. Escrivá Gracia et al. (2019) reported that MEs occur in 1% - 10% of hospitalizations and cost patients and hospitals \$3 billion. Fortunately, interventions that address burnout among health care professionals can reduce the occurrence of MEs (Lahana et al., 2017). Such efforts include establishing boundaries between work and personal life,

appropriate and manageable workloads, and experimental work processes (Waddill-Goad, 2019).

Theory

Lewin's three-step model is ideal for achieving these changes. The first step involves "unfreezing" the status quo to overcome resistance and conformity (Connelly, 2020). Here, stakeholders are motivated by preparing for change and building trust. The second step is movement, in which stakeholders are persuaded to understand and appreciate the importance of change. Finally, in the third step, the "refreezing" stage, efforts are made to sustain the change, and new practices are reinforced.

3. Recommended Practice Change, Quality Improvement, or Innovation

3.1. Recommendations

As Dubale et al. (2019) noted, there should be an improvement in health care organizations to reduce burnout in nurses. Demanding work should be reduced to deal with physical and emotional exhaustion. This article has shown the importance of enhancing nurses' psychological well-being to prevent burnout. The problem of nurse burnout has been linked to the poor performance of nurses in health care settings. The best recommendation to deal with this issue is to educate the nurses on coping with stressful conditions, personalization, emotional exhaustion, and depersonalization. As Pradas-Hernández et al. (2018) argued, these factors contribute most to burnout. In addition, Márquez-Hernández et al. (2019) suggested nurse education as a key to dealing with burnout. The authors found that more knowledge leads to positive behaviors and attitudes among nurses.

The practice change should be supported by adopting the MBI and SBAR tools to facilitate the measurement of burnout levels and communication in teamwork. (Ezenwaji et al., 2019) discussed the effectiveness of the MBI in reducing burnout in a study that targeted more than 200 nurse managers. Kostoff et al. (2016) demonstrated the importance of using the SBAR tool to enhance teamwork through effective communication, which can also reduce burnout. Building nurses' resilience is based on the need to develop their capacity to cope with stressful situations in their profession. Brown et al. (2018) showed that resilience is a critical factor that can help nurses speak up when they need help. The evidence-based literature widely supports this theme.

The problem examined in this study focuses on the impact of nurse burnout on patient outcomes. Burnout is a serious issue in health care that affects nurses and the delivery of quality care. Evidence suggests that burnout is linked to patients' MEs and poor treatment outcomes. In addition, burnout among nurses significantly compromises patient safety. The evidence summary has substantiated several critical causes of burnout, including work conditions (Mudallal et al., 2017); demographic characteristics (Ezenwaji et al., 2019); stress (Jarrad et al., 2018); and personal accomplishments, emotional exhaustion, and depersonalization (Pradas-Hernández et al., 2018).

Plan

The action plan aims to enhance the quality of care by reducing nurse burnout in the work environment. Liu et al. (2018) showed that working conditions must be improved to prevent nurse burnout. The action plan that can better these conditions includes creating quality leadership with opportunities to learn, shared goals, reward systems, role clarification, and participatory decision-making. Ultimately, communication should be enhanced at all levels.

Furthermore, the organizational structure should be decentralized, and nurses should be represented in health care departments. As Ezenwaji et al. (2019) observed, demographic characteristics play a crucial role in nurse stress and burnout. Female nurses should be given adequate time, including family leave, to attend to the family issues that stress them the most since they are often the caregivers at home.

Limiting nurses' workload can reduce stress (Liu et al., 2018). Modifications in workload can be achieved by hiring more nurses to ensure no shortage of nurses and assigning a certain number of patients per nurse. Liu et al. (2018) advocated stress reduction measures by minimizing workload and improving nurses' working conditions. The length of shifts should be reduced to prevent stress and burnout among nurses. Moreover, motivational factors such as reward systems can address personal

achievements and depersonalization in the workplace (Pradas-Hernández et al., 2018). Emotional exhaustion should be addressed by providing more social support to nurses. Specifically, Albar Marín & García- Ramírez (2005) determined that introducing social support services helps reduce the stressors in nurses' lives that lead to burnout.

Given that the ethical principles of nursing are justice, beneficence, non- maleficence, accountability, fidelity, autonomy, and integrity, the adverse effects of burnout on nurses and their patients represent a flagrant failure to abide by these ethical principles. This is especially true for accountability concerning MEs, fidelity, non-maleficence, and justice, where nurses have witnessed negli- gence resulting from burnout. According to the literature reviewed, an estimated 10% of all medical errors reported by nurses are due to burnout syndrome, com- passion fatigue, moral distress, intent to quit, and understaffing (Dyrbye et al., 2017; Kim et al., 2020).

Therefore, based on the preceding discussion, this study recommends practice change and quality improvement aimed at both psychological and structural empowerment of nurses to help reduce the incidence of nurse burnout. Fur- thermore, through the recommended action plan for policy development and implementation, this project provides an evidence-based pathway for stakehold- ers in the health sector to develop measures and practices that can help mitigate the adverse effects of burnout on patient experiences. Overall, this project com- plements previous studies that have also called for empowering leadership for nurses through effective policy development, implementation, and training.

The proposed policy, which promotes quality improvement by reducing nurse burnout, focuses on the need to improve staffing and work relationships. How- ever, the actual procedure should ensure that nurses involve supervisors and other medical staff in implementing strategies to increase clinical staffing, retain experienced nurses, and find ways to improve relationships between nurses and physicians (Kanai-Pak et al., 2008).

3.2. Literature Gap

The high workload in the nursing profession and other environmental issues such as poor staff-patient ratios, inadequate nurse-physician communication, and ineffective leadership have been associated with burnout in nurses (Shah et al., 2021). Several strategies have been proposed in the literature to reduce nurse burnout, such as training to improve communication skills among health care workers, increasing the number of nurses, staff appreciation, training on team- work, and physical and spiritual programs (Zhang et al., 2020). However, nurse burnout continues to increase despite the proposed strategies and negatively impacts health care delivery. According to Shah et al. (2021), 31.5% of U.S. nurses in a sample of 50,000 quit their jobs due to burnout in 2018.

Despite the various studies that have addressed nurse burnout, there remain gaps in the literature. According to Dall'Ora & Saville (2021), most research stu- dies misuse burnout measures for nurses, such as using only one subscale of the MBI. For example, emotional exhaustion in the MBI is often used alone without justifying the reason. Because of such sources of bias in these studies, the causes of burnout among health care workers cannot be reliably determined. Conse- quently, this makes it challenging to develop effective interventions to reduce burnout.

It is therefore critical to address these gaps in the literature to develop effective interventions to reduce nursing burnout. Dall'Ora & Saville (2021) recommended using all three subscales of the MBI to avoid bias. Therefore, the present study aims to address these gaps using the MBI to implement solutions based on the three subscales: personal accomplishment, emotional exhaustion, and deperso- nalization. The study will also use the SBAR approach in communication to im- plement innovations that will create effective care teams and nursing-sensitive care measures. This study will implement holistic interventions based on prac- tice change, quality improvement, and innovation.

A holistic approach will ensure that strategies are not based on a single subs- cale and can be used to address different causes of nurse burnout. In addition, this study will help maintain effective nurse leadership that enhances relation-

ships and communication in health care settings. Nurse managers will therefore be able to use a well-rounded approach and be more likely to identify nurse burnout by understanding workplace stressors and their causes of burnout.

3.3. Implementation

Description of the Steps

As a nurse leader, the researcher had witnessed nurses expressing dissatisfaction in the workplace because of their feelings of work burnout. Similarly, during the researcher's nursing career, periods of emotional exhaustion were experienced at various points. It was also observed that other nurses experienced the same difficulties or developed a lack of fulfillment and depersonalization. During the researcher's observation, patients' quality of care began to decline, leading to substandard care and poor patient outcomes.

As a result, the negative impact of nurse burnout on the patients they cared for had to change. The researcher involved the nurses in developing resources needed to meet their work expectations; this allowed them to make suggestions that would support them in reducing burnout. Training sessions were also designed to improve and maintain the nurses' skills, which helped them emotionally and physically cope with work burnout without compromising the quality of their work for patients.

Furthermore, the researcher occasionally reached out to the nurses in the health facility to express appreciation and encourage them to improve in areas where there may have been deficiencies. Individual appreciation sessions with these nurses allowed them to open to the researcher and talk about the problems they faced working with burnout, their perceived impact on the current situation, and what they would like to do about it. Some mandatory physical activities and breaks were also introduced to reduce current burnout.

Before implementing these empowering practices among the nurses at the health facility, the researcher wrote an email to the hospital's management requesting approval of the techniques presented. Evidence was shown from the various observations of burnout among nurses at the health facility and how it negatively affected the quality of care and health of patients they were treating to support the need for the proposed methods. As a nurse leader, it was the researcher's responsibility to ensure that nurses' well-being was maintained and improved. Therefore, once the problem of work burnout was identified, the online literature was searched to find different approaches to reducing work burnout appropriate for the current work environment. A stakeholder meeting was also held to analyze the impact of a good work environment. These meetings provided space for input on how to improve the work environment.

The researcher worked with hospital and health sector policymakers regarding leadership empowerment practices to establish these techniques as a new policy. Brainstorming sessions were also held during the various meetings before developing the new guidelines so that those in attendance could suggest any significant changes to the recommended leadership empowerment practices. During the stakeholder meeting, it was determined that training was the best way to create a supportive environment in the workplace. Therefore, the researcher was tasked with coordinating a two-week training for all the employees at the health facility.

This training aimed to educate the health facility personnel on improving the health care work environment. During the training, leaflets, presentations, and practical illustrations on the impact of work burnout on nurses and all hospital employees were used. These materials demonstrated the value of creating and maintaining a supportive work environment. After the implementation steps were completed, nurses at the health care facility were interviewed to determine if there had been a reduced work burnout. Each interview was conducted outside the nurses' work shifts to avoid interfering with their daily activities. During these interviews, nurses were also asked to identify problems that had not yet been addressed concerning the proposed implementation. Discussion of Changes no noteworthy

changes to the original plan were made.

Discussion of the Barriers

Several obstacles were encountered in the implementation of this project. First, there was resistance to change, especially from hospital management. Because hospital management had been using their administrative system long, they were satisfied with the status quo and saw no need for change. Similarly, some nurses had become so accustomed to their previous schedules that they considered them the norm. In most cases, nurses were putting in extra shifts to earn overtime or to maximize the hours required in the hospital to make time for their other activities outside the hospital. This challenge produced a new lack of cooperation between nurses and hospital management. Because some of them were satisfied with how things had been running, they used their lack of cooperation to hinder the successful implementation of the changes.

Overcoming the Barriers

To overcome resistance to the changes, extensive communication was conducted with nurses, hospital management, and other stakeholders to inform them of the need to prevent nurse burnout. In addition, statistics on burnout rates and the negative consequences of burnout on the quality of patient outcomes and the nurses themselves were used to highlight the seriousness of the situation and gain the buy-in of stakeholders. Furthermore, the administration's support was sought to achieve cooperation. Because hospital management and leaders were entirely behind the change, it was easy to convince the rest of the nursing staff of the need to support the changes. In addition, the potential benefits of the changes were communicated, so stakeholders were optimistic about successful implementation.

Identifying Interprofessional Relationships

Thirty hospital management, nurse leadership, and health ministry representatives were involved in this study. The hospital's nursing department was the stakeholder directly affected by the project. The department comprised the chief nursing officer, bedside nurses, educators, managers, and directors.

Discussion of Relationships

Interpersonal relationships within the project significantly impacted its successful implementation. For example, connections between hospital management, the hospital executive, and the nurses allowed the project team to assess the challenges associated with nursing burnout and the potential solutions. The nursing department is one of the most critical areas of the hospital and requires well-rested nurses to achieve better patient outcomes.

The 30 representatives on the project team were trained for over two months to learn leadership empowerment practices to develop strategies to manage burnout among nurses. These strategies included addressing staffing levels, departmental workloads, and work schedules and using team-building activities to manage emotional fatigue and stress. Because the nurses were the most crucial staff within the project and the subjects of the MBI, it was critical to establish a good working relationship. The alliance between the project team, nurses, and other stakeholders allowed for effective collaboration and evaluation of the potential benefits and challenges of implementing the changes. In addition, the partnership between stakeholders helped to assess and work through the emerging social and technical issues that challenged the project team. Including nurses on this team was essential, as it laid the groundwork for the education and training needed to effect sustainable change.

The interprofessional relationship between the project management team and the nurses allowed for creating communication plans and the necessary infrastructure to teach and train the nurses in the new protocols. In addition, the communication plan provided clear guidelines on the relationships and responsibilities between the different stakeholders to avoid potential misunderstandings and promote good working relationships. Furthermore, the health ministry offered financial support, and the hospital provided the conference hall and other necessary materials, including pens and paper. Collaboration between stakeholders and understanding each member's expectations were critical to implementing the changes.

3.4. Discussion of the Project's Successes

This project had several critical successes. First, the collaboration between project stakeholders was a crucial success factor. At the beginning of the project, there was some hesitation, resistance, and lack of cooperation. However, the project team decided to communicate the existing challenges, potential solutions, and imminent benefits of implementing the changes. Once the team's expectations were made known to all stakeholders, collaboration allowed the team to overcome all other obstacles and move forward with the project. This collaborative effort allowed stakeholders to accept and adapt to the changes brought about by the project and was a significant success in its implementation phase.

In addition, this helped improve communication among hospital staff and increase the likelihood of future collaboration.

The availability of necessary resources also played a critical role in the project's success. The team brought together stakeholders, such as the hospital executive and management, who provided the necessary resources. These resources enabled the implementation of the MBI by giving the nurses and other stakeholders the training required to use the tool. In addition, these resources strengthened the willingness of stakeholders to contribute to the completion of the project.

Finally, the nurses' acceptance of the problem and the proposed tools played a crucial role in the project's success. They helped to increase awareness and understanding of the concept of nurse burnout. The project's key component was the MBI, which measured levels of emotional exhaustion, recognized personal accomplishments, and assessed the nurses' workload. The fact that nurses accepted the existence of the overarching burnout problem facilitated the acceptance of the tool. Despite hesitation about the change and its potential consequences, appropriate communication quickly remedied this. Recognition and acceptance of the problem contributed to the approval of the proposed changes, thus facilitating their implementation. This is supported by Mansaray (2019), who argued that the right kind of leadership during a change-management process could help ensure that the problem is recognized. As a result, the solutions are accepted, contributing to a project's successful implementation. Therefore, the project implementation process, which included nurse training, allowed for a better understanding of the problem and the tools used.

Implementing the MBI and interventions will most likely impact other areas within the hospital. First, the project is a recognition of the burnout problem that occurs within the hospital. Aside from the number of hours worked and the workload placed on the hospital nurses, other factors include the amount of rest they get at home and their dynamic environment, both at home and at work. Therefore, the staff needs to do much more than use a tool to measure their workload and fatigue—they need to focus on their lives. This focus could affect the nurses' thought processes, the communication they expect in their work environment, and changes in their personal lives. Thus, this project could lead to the creation of future work-life balance projects.

In addition, this study will provide relevant insights for future projects. Because the project was successfully implemented, its successes and failures can serve as a foundation for future research. Furthermore, the project's effective collaboration and cooperation with relevant stakeholders can be applied to future projects, increasing the likelihood of success.

The plan to reduce the shift lengths of the hospital's nurses was based on the need to minimize burnout and fatigue. However, the project team failed to recognize the need for additional resources at the hospital because reducing shifts would mean more hours that other nurses would have to fill. This tactical detail affected the implementation of the changes in the first few days. As a result, patients experienced delays in care and a severely understaffed hospital.

Because the impact of the changes on other areas of the hospital's work was overlooked, the team did not prepare adequately for the acute shortage of nurses that would result from implementing the new changes. Although this shortage presented a tactical challenge, it was effectively managed. However, this aspect will positively impact future projects, as it highlights a mistake that should not be repeated

on any project.

The literature review found that nurse burnout significantly contributes to poor patient outcomes, decreased nurse performance, and more medication errors (Mudallal et al., 2017). In this study, current hospital practices include nurse shifts of 10 to 12 hours on consecutive days. It was determined that these long shifts increased fatigue and burnout among the nurses.

Most literature on nursing burnout suggests reducing nursing shifts and improving resilience (Brown et al., 2018), with varying strategies to achieve these outcomes. Recommended strategies included using tools to monitor nurses' shifts, such as the MBI, and hiring additional nurses to reduce workload. The MBI was selected as a strategy in this case because there is ample evidence in the literature that this tool can improve the quality of nurses' output (Brusaferro et al., 2000).

Following the implementation of the MBI, a technical database was implemented to evaluate and monitor nurses' shifts and schedules. This tool helped in the efficient scheduling of all nurses (in combination with the additional staff acquired) to achieve an optimal system in which nurses were allocated sufficient hours for work and other activities, such as rest.

Insights into the need for a change in leadership style were also incorporated. Thus, an empowerment policy was introduced to give nurses authority in decision-making and autonomy over their work areas. Several short-and long-term maintenance plans can be established to ensure the continued success of the implemented changes. For example, a clear communication plan can keep stakeholders informed of the project's progress in the short term. Continued communication will ensure that the project is maintained over time, despite its full implementation, with a focus on its progress.

The first plan is to develop a long-term policy for leader-empowerment practices. This plan was part of the implementation process to establish empowerment practices as organizational culture. This will be combined with modifications in corporate culture to encourage autonomy and decision-making among nurses and increase their support for future change. Furthermore, continued staffing adjustments will be made, with the hospital striving to always have enough nurses in the facility. These adjustments will ensure that shift assignments are maintained and that nurses have sufficient time to recover and live outside the hospital. Finally, adequate resources will be provided to continue supporting the project. For the project to be successful, the necessary resources must always be available to ensure its long-term sustainability.

The project team responsible for evaluation and analysis will be the essential resource needed during the post-implementation phase. Since the project will have already been implemented, this process will need to be evaluated to determine progress, successes, and failures. Of the 30-person team, only five people will be responsible for evaluation and analysis.

Financial resources such as the MBI will also be required to maintain the tools used for the change. In addition, these resources will support the ongoing use of the instruments and training of nurses, should the need arise.

3.5. Reflection

The study aimed to implement innovative nursing practices to reduce nurse fatigue and burnout and improve patient outcomes. In addition, the MBI was employed to assess the number of hours nurses worked and ensure that fatigue did not affect the quality of care.

Nurses who work long shifts week after week and enter a patient room when tired or not well-rested face ethical, professional, and legal consequences. This study points out the lack of professionalism in such activities, which endangers the health of nurses and patients. In addition, the study's results informed hospital staff of the need for adequate rest to reduce the legal, professional, and ethical consequences of nurse burnout through training. Theoretical learning at the university provided the necessary information on nurse burnout. In addition, this learning enabled the translation of research findings into concrete practice changes and the development of evidence-based practice.

4. Conclusion

Developing Effective Organizational and Leadership Mechanisms for Enhanced Patient Care and Continuous Development

The issue work. that However, was a highlighted closer within look the at hospital the was causes initially of deemed the to problem be revealed related that to leadership the issues technical also aspect played of a nursing significant role in the persistence of the problem. The practice changes were in any way related to hours the worked assessment by of the nurses and the workload of the nurses in the workplace. However, there were other changes that needed to be put in place to support this study including; giving the nurses the freedom to make decisions and coming up with a healthy organizational culture.

Research and evidence on nurse burnout and hospital leadership provided the basis for the leadership changes that were needed to bring about the right changes. Thus, the administration ensured high-quality patient care through implementing leadership practices in the course of the program. Also, it was important for nurse's autonomy and healthy organizational culture to support learning.

The research provided the foundation for the understanding of how research can be applied in practice. The data collected in the study assisted in determining the problem at the hospital and evidence-based literature was consulted to find out how the problem could be solved and how the quality of care at the hospital could be enhanced.

References

- Albar Marín, M. J., & García-Ramírez, M. (2005). Social Support and Emotional Exhaustion among Hospital Nursing Staff. *The European Journal of Psychiatry*, 19, 96-106. <https://doi.org/10.4321/S0213-61632005000200004> https://scielo.isciii.es/scielo.php?pid=S0213-61632005000200004&script=sci_arttext&tlng=en
- Brown, L. W., & Quick, J. C. (2013). Environmental Influences on Individual Burnout and a Preventive Approach for Organizations: Environmental Influences on Burnout. *Journal of Applied Biobehavioral Research*, 18, 104-121. <https://doi.org/10.1111/jabr.12002>
- Brown, S., Whichello, R., & Price, S. (2018). The Impact of Resiliency on Nurse Burnout: An Integrative Literature Review. *MEDSURG Nursing*, 27, 349-378.
- Brusaferro, S., Agnoletto, A. P., Gubian, F., & Balestrieri, M. (2000). Use of the Maslach Burnout Inventory to Support Health Care Workers Management in Hospital. *Journal of Preventive Medicine and Hygiene*, 41, 18-23.
- Cishahayo, E. U., Tuyisenge, M. J., Mwiseneza, M. J., Segor, R., & Bhengu, B. R. (2019). Perceived Effects of Burnout on Patients and Its Management among Nurses in the Intensive Care Unit and Emergency Department of a Rwandan University Teaching Hospital. *Rwanda Journal of Medicine and Health Sciences*, 2, 147-153. <https://doi.org/10.4314/rjmhs.v2i2.10>
- Connelly, M. (2020, September 12). The Kurt Lewin Change Management Model. Creating Positive Change. https://www.change-management-coach.com/kurt_lewin.html
- Dall'Ora, C., & Saville, C. (2021). Burnout in Nursing: What Have We Learnt and What Is Still Unknown? *Nursing Times*, 117, 43-44. <https://www.nursingtimes.net/roles/nurse-managers/burnout-in-nursing-what-have-we-learnt-and-what-is-still-unknown-25-01-2021/>
- de Oliveira, S. M., de Alcantara Sousa, L. V., Vieira Gadelha, M. do S., & do Nascimento, V. B. (2019). Prevention Actions of Burnout Syndrome in Nurses: An Integrating Literature Review. *Clinical Practice & Epidemiology in Mental Health*, 15, 64-73. <https://doi.org/10.2174/1745017901915010064>
- Deldar, K., Froutan, R., Dalvand, S., Ghanei Gheshlagh, R., & Mazloum, S. R. (2018). The Relationship between Resiliency and Burnout in Iranian Nurses: A Systematic Review

- and Meta-analysis. *Open Access Macedonian Journal of Medical Sciences*, 6, 2250-2256. Dimunova, L., Sovariova Soosov, M., & Mohnyanszki, F. (2018). Work-Related Factors Influencing Burnout Syndrome in Nurses. *Clinical Social Work and Health Intervention*, 9, 25-30. https://doi.org/10.22359/cswhi_9_1_04
- Doré, C., Duffett-Leger, L., McKenna, M., & Breau, M. (2017). Perspectives on Burnout and Empowerment among Hemodialysis Nurses and the Current Burnout Intervention Trends: A Literature Review. *CANNT Journal*, 27, 16-31.
- Dubale, B. W., Friedman, L. E., Chemali, Z., Denninger, J. W., Mehta, D. H., Alem, A., Fricchione, G. L., Dossett, M. L., & Gelaye, B. (2019). Systematic Review of Burnout among Healthcare Providers in Sub-Saharan Africa. *BMC Public Health*, 19, Article No. 1247. <https://doi.org/10.1186/s12889-019-7566-7>
- Dyrbye, L. N., Shanafelt, T. D., Sinsky, C. A., Cipriano, P. F., Bhatt, J., Ommaya, A., West, C. P., & Meyers, D. (2017). Burnout Among Health Care Professionals: A Call to Explore and Address This Underrecognized Threat to Safe, High-Quality Care (p. 7). *NAM Perspectives*, National Academy of Medicine. <https://doi.org/10.31478/201707b>
- Escrivá Gracia, J., Brage Serrano, R., & Fernández Garrido, J. (2019). Medication Errors and Drug Knowledge Gaps among Critical-Care Nurses: A Mixed Multi-Method Study. *BMC Health Services Research*, 19, Article No. 640. <https://doi.org/10.1186/s12913-019-4481-7>
- Ezenwaji, I. O., Eseadi, C., Okide, C. C., Nwosu, N. C., Ugwoke, S. C., Ololo, K. O., Oforika, T. O., & Oboegbulem, A. I. (2019). Work-Related Stress, Burnout, and Related Sociodemographic Factors among Nurses: Implications for Administrators, Research, and Policy. *Medicine*, 98, Article ID: e13889. <https://doi.org/10.1097/MD.00000000000013889>
- Freudenberger, H. J. (1977). Burn-Out: Occupational Hazard of the Child Care Worker. *Child Care Quarterly*, 6, 90-99. <https://doi.org/10.1007/BF01554695>
- Gollwitzer, P. M., Mayer, D., Frick, C., & Oettingen, G. (2018). Promoting the Self-Regulation of Stress in Health Care Providers: An Internet-Based Intervention. *Frontiers in Psychology*, 9, Article No. 838. <https://doi.org/10.3389/fpsyg.2018.00838>
- Greives, N. (2016). Implementation of a Nursing Workload Tool to Reduce Nurse Burnout. *Evidence-Based Practice Project Reports*, Article No. 80. <https://scholar.valpo.edu/ebpr/80>
- Guo, Y., Luo, Y., Lam, L., Cross, W., Plummer, V., & Zhang, J. (2018). Burnout and Its Association with Resilience in Nurses: A Cross-Sectional Study. *Journal of Clinical Nursing*, 27, 441-449.
- Gutsan, E., Patton, J., Willis, W. K., & PH, C. D. (2018). Burnout Syndrome and Nurse-to-Patient Ratio in the Workplace. In 54th Annual MBAA Conference .
- Hall, L. H., Johnson, J., Watt, I., Tsipa, A., & O'Connor, D. B. (2016). Healthcare Staff Wellbeing, Burnout, and Patient Safety: A Systematic Review. *PLOS ONE*, 11, Article ID: e0159015. <https://doi.org/10.1371/journal.pone.0159015>
- Jacobs, A. W., Hill, T. D., Tope, D., & O'Brien, L. K. (2016). Employment Transitions, Child Care Conflict, and the Mental Health of Low-Income Urban Women with Children. *Women's Health Issues*, 26, 366-376. <https://doi.org/10.1016/j.whi.2016.05.003>
- Jaishree, S., & Parthiban, S. (2018). Burnout among Nursing Professionals—A Literature Survey. *International Journal of Research and Analytical Reviews*, 5, 2348-1269.
- Jarrad, R., Hammad, S., Shawashi, T., & Mahmoud, N. (2018). Compassion Fatigue and Substance Use among Nurses. *Annals of General Psychiatry*, 17, Article No. 13.

<https://doi.org/10.1186/s12991-018-0183-5>

Kanai-Pak, M., Aiken, L. H., Sloane, D. M., & Poghosyan, L. (2008). Poor Work Environments and Nurse Inexperience Are Associated with Burnout, Job Dissatisfaction and Quality Deficits in Japanese Hospitals. *Journal of Clinical Nursing*, 17, 3324-3329. <https://doi.org/10.1111/j.1365-2702.2008.02639.x>

Khoo, E. J., Aldubai, S., Ganasegeran, K., Lee, B. X., Zakaria, N. A., & Tan, K. K. (2017). Emotional Exhaustion Is Associated with Work Related Stressors: A Cross-Sectional Multicenter Study in Malaysian Public Hospitals. *Archivos Argentinos de Pediatría*, 115, 212-219. <https://doi.org/10.5546/aap.2017.eng.212>

Kim, Y., Lee, E., & Lee, H. (2020). Association between Workplace Bullying and Burnout, Professional Quality of Life, and Turnover Intention among Clinical Nurses. *PLOS ONE*, 14, Article ID: e0226506. <https://doi.org/10.1371/journal.pone.0226506>

Kostoff, M., Burkhardt, C., Winter, A., & Shrader, S. (2016). An Interprofessional Simulation Using the SBAR Communication Tool. *American Journal of Pharmaceutical Education*, 80, Article No. 157. <https://doi.org/10.5688/ajpe809157>

Lahana, E., Papadopoulou, K., Roumeliotou, O., Tsounis, A., Sarafis, P., & Niakas, D. (2017). Burnout among Nurses Working in Social Welfare Centers for the Disabled. *BMC Nursing*, 16, Article No. 15. <https://doi.org/10.1186/s12912-017-0209-3>

Liu, X., Zheng, J., Liu, K., Baggs, J. G., Liu, J., Wu, Y., & You, L. (2018). Hospital Nursing Organizational Factors, Nursing Care Left Undone, and Nurse Burnout as Predictors of Patient Safety: A Structural Equation Modeling Analysis. *International Journal of Nursing Studies*, 86, 82-89. <https://doi.org/10.1016/j.ijnurstu.2018.05.005>

Mansaray, H. E. (2019). The Role of Leadership Style in Organisational Change Management: A Literature Review. *Journal of Human Resource Management*, 7, 18-31. <https://doi.org/10.11648/j.jhrm.20190701.13>

Márquez-Hernández, V. V., Fuentes-Colmenero, A. L., Cañadas-Núñez, F., Di Muzio, M., Giannetta, N., & Gutiérrez-Puertas, L. (2019). Factors Related to Medication Errors in the Preparation and Administration of Intravenous Medication in the Hospital Environment. *PLOS ONE*, 14, Article ID: e0220001. <https://doi.org/10.1371/journal.pone.0220001>

Maslach, C. (1976). Burned-Out. *Human Behavior*, 5, 16-22.

Maslach, C., & Jackson, S. E. (1984). Burnout in Organizational Settings. *Applied Social Psychology Annual*, 5, 133-153.

Maslach, C., & Leiter, M. P. (2017). New Insights into Burnout and Health Care: Strategies for Improving Civility and Alleviating Burnout. *Medical Teacher*, 39, 160-163. <https://doi.org/10.1080/0142159X.2016.1248918>

Mudallal, R. H., Othman, W. M., & Al Hassan, N. F. (2017). Nurses' Burnout: The Influence of Leader Empowering Behaviors, Work Conditions, and Demographic Traits. *INQUIRY: The Journal of Health Care Organization, Provision, and Financing*, 54, Article ID: 0046958017724944. <https://doi.org/10.1177/0046958017724944>

Nantsupawat, A., Kunaviktikul, W., Nantsupawat, R., Wichaikhum, O.-A., Thienthong, H., & Poghosyan, L. (2017). Effects of Nurse Work Environment on Job Dissatisfaction, Burnout, Intention to Leave. *International Nursing Review*, 64, 91-98. <https://doi.org/10.1111/inr.12342>

Pearce, P. F., Morgan, S., Matthews, J. H., Martin, D. M., Ross, S. O., Rochin, E., & Welton, J. M. (2018). The Value of Nurse Staffing: ANA Principles Redevelopment and Direction for the Future. *Nursing Economics*, 36, 169-176.

- Pradas-Hernández, L., Ariza, T., Gómez-Urquiza, J. L., Albendín-García, L., De la Fuente, E. I., & Cañadas-De la Fuente, G. A. (2018). Prevalence of Burnout in Paediatric Nurses: A Systematic Review and Meta-Analysis. *PLOS ONE*, 13, Article ID: e0195039. <https://doi.org/10.1371/journal.pone.0195039>
- Prapanjaroensin, A., Patrician, P. A., & Vance, D. E. (2017). Conservation of Resources Theory in Nurse Burnout and Patient Safety. *Journal of Advanced Nursing*, 73, 2558-2565. <https://doi.org/10.1111/jan.13348>
- Shah, M. K., Gandrakota, N., Cimiotti, J. P., Ghose, N., Moore, M., & Ali, M. K. (2021). Prevalence of and Factors Associated With Nurse Burnout in the US. *JAMA Network Open*, 4, Article ID: e2036469. <https://doi.org/10.1001/jamanetworkopen.2020.36469>
- Shenoi, A. N., Kalyanaraman, M., Pillai, A., Raghava, P. S., & Day, S. (2018). Burnout and Psychological Distress among Pediatric Critical Care Physicians in the United States. *Critical Care Medicine*, 46, 116-122.
- Sillero, A., & Zabalegui, A. (2018). Organizational Factors and Burnout of Perioperative Nurses. *Clinical Practice & Epidemiology in Mental Health*, 14, 132-142. <https://doi.org/10.2174/1745017901814010132>
- Van Bogaert, P., Peremans, L., Van Heusden, D., Verspuy, M., Kureckova, V., Van de Cruys, Z., & Franck, E. (2017). Predictors of Burnout, Work Engagement and Nurse Reported Job Outcomes and Quality of Care: A Mixed Method Study. *BMC Nursing*, 16, Article No. 5. <https://doi.org/10.1186/s12912-016-0200-4>
- Waddill-Goad, S. M. (2019). Stress, Fatigue, and Burnout in Nursing. *Journal of Radiology Nursing*, 38, 44-46. <https://doi.org/10.1016/j.jradnu.2018.10.005>
- Wei, R., Ji, H., Li, J., & Zhang, L. (2017). Active Intervention Can Decrease Burnout in Ed Nurses. *Journal of Emergency Nursing*, 43, 145-149. <https://doi.org/10.1016/j.jen.2016.07.011>
- Wondmieneh, A., Alemu, W., Tadele, N., & Demis, A. (2020). Medication Administration Errors and Contributing Factors among Nurses: A Cross Sectional Study in Tertiary Hospitals, Addis Ababa, Ethiopia. *BMC Nursing*, 19, Article No. 4. <https://doi.org/10.1186/s12912-020-0397-0>
- Zhang, X., Song, Y., Jiang, T., Ding, N., & Shi, T. (2020). Interventions to Reduce Burnout of Physicians and Nurses: An Overview of Systematic Reviews and Meta-Analyses. *Medicine*, 99, Article ID: e20992. <https://doi.org/10.1097/MD.00000000000020992>