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Factors Contributing to Nurse Burnout in Oncology

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NURS 498VH: Nursing Honors Thesis Project

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May 06, 2022

Abstract

Nurse burnout is a pressing concern for healthcare with significant implications for all areas of nursing and patient outcomes. However, the specialty of oncology experiences burnout differently than other specialties for a multitude of reasons. This literature review aims to determine factors that contribute to nurse burnout within oncology, and identify evidence-based prevention strategies. The twenty studies included in the review underscore the crucial role of management and leadership in the prevention of nurse burnout. Further education and research are needed to better understand causes of burnout, as well as proper interventions. Interventions need to be established on a hospital and unit basis, as every facility and specialty functions differently and will respond individually to burnout reduction techniques.

Introduction

The World Health Organization (WHO) defines nurse burnout as “a syndrome conceptualized as resulting from chronic workplace stress that has not been successfully managed” (2019, para 4). Burnout is an increasingly prevalent occurrence in nursing, characterized as an occupational phenomenon involving the nurse’s feelings of exhaustion, being distant from their job, and decreased professional efficacy. Like burnout, oncology nurses commonly struggle with compassion fatigue, which involves having negative feelings due to helping others. However, compared to burnout, compassion fatigue results from handling others’ trauma, while burnout stems from poor management and occupational stress.

Burnout and compassion fatigue cultivate a poor environment for patients, as they are associated with a deterioration in patient care, and extreme exhaustion that the nurse is unable to perform their job safely (Ortega-Campos et al, 2020). The significance of burnout varies depending on the individual stakeholder. In nurses, burnout creates an unsafe environment,

affecting the nurse's health and well-being. One study shows that burnout directly relates to immune function, as levels of C3, C4, and CD4 positive T cells were associated with symptoms of burnout, including depersonalization and emotional exhaustion (Cui et al., 2021). Nurse burnout affects patient care quality and safety. When nurses are unable to work to their best ability due to burnout, patient care suffers. Lastly, burnout affects the hospital and healthcare system, costing an estimated \$4-6 billion every year (Franceschi, & Brandes, 2021). Aside from financials, as nurses become increasingly burnout, more are fleeing bedside. According to the American Association of International Healthcare Recruitment, 36% of nurses have or are considering leaving bedside since the pandemic for their own safety and mental health (2021).

It is important to distinguish burnout and compassion fatigue in oncology compared to other specialties, as these nurses face death and the grieving process every shift. The oncology specialty in this study refers to nurses that provide care to patients who have had, currently have, or are at risk of getting cancer. Oncology nurses consistently handle decisions concerning life and death for illnesses that typically have no cure. Whereas medical-surgical nurses still experience patient deaths, many conditions their patients receive care for have treatments with higher success rates. Lack of hope contributes to high rates of burnout and compassion fatigue in oncology. Oncology nurses care for patients and families enduring long illnesses, futile treatments, and high death rates. The cumulative emotional exhaustion couples with managing complex physical and psychological patient needs can contribute to burnout.

The Covid-19 pandemic brought media recognition and public appreciation for nurses' daily efforts. Alongside celebration, nurses have increasingly reported exploitation and complex challenges in navigating safe patient care amid a politicized environment. Oncology nurses continue treating and providing compassionate care to cancer patients, who are some of the most

vulnerable against the virus. By identifying the factors contributing to nurse burnout within the oncology specialty, interventions and treatment can be employed to evade burnout as a new grad nurse in this specialty.

PICOT Research Question:

What factors contribute to nurse burnout in oncology nursing?

Study Design

A systematic review of research is studied to examine the various factors contributing to oncology nurse burnout. This review upholds PRISMA guidelines and contains articles derived by CINAHL and PubMed.

Information Sources

One student searched MEDLINE Complete, CINAHL with Full Text, APA PsycInfo, and Social Work Abstract databases using MeSH terms.

Search Strategy

The terms used to formulate a conclusion to the PICOT question included “burnout” and “nursing”. Search results were limited to articles published within the past five years.

Inclusion/Exclusion Criteria

Articles were chosen based on the PICOT question: (1) the study examined nurses, particularly in the specialty of oncology (P); (2) the study focuses on nurse burnout (I); (3) the study looks at factors contributing to burnout in oncology compared to other specialties (O). The research question did not meet the criteria to include a comparison or time frame.

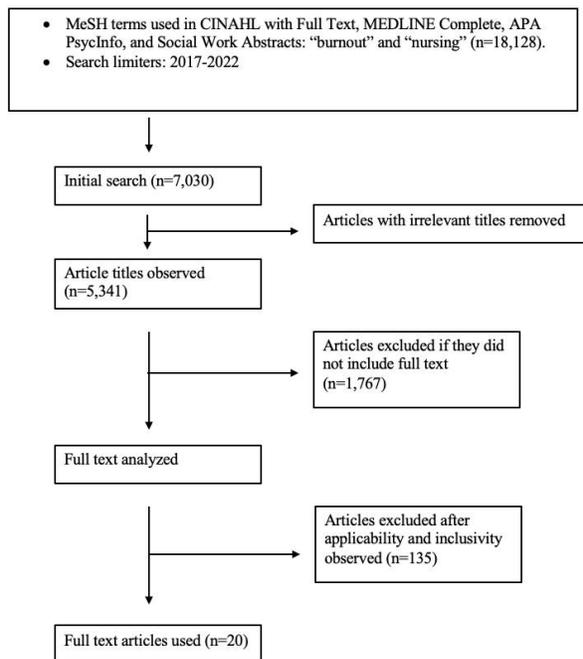
Data Extraction

From the articles found in the initial search, the author, design and method, sample/setting, measures, data, and findings were taken.

Search Results

The search from MEDLINE Complete, APA PsycInfo, CINAHL with Full Text, and Social Work Abstracts provided an initial 18,128 articles. Articles were then limited to those published within the past five years (7,030), and irrelevant titled articles were removed (5,341). Articles were excluded if they did not have full text written in English (1,767). Lastly, articles were chosen based on how well they aligned with the study, looking at burnout in nursing professionals working in oncology (20).

Figure 1



Results

Characteristics of Studies

The studies chosen include a variety of designs, such as systematic literature reviews, comparative cross-sectional reviews, questionnaires, longitudinal studies, meta-analysis study, a

mixed-method approach, and surveys. The sample from included articles is diverse, including a variety of nurse specialties, namely oncology and adult medical-surgical. Further, some articles include managers, charge nurses, and physicians, representing those in the United States, China, Europe, and Australia. Major variables studied in the articles correlate to the PICOT question, looking at compassion fatigue, burnout, nurse turnover, and verbal/physical violence.

Summary of Studies

Nurse burnout is a pertinent topic, that has received increased attention from healthcare researchers and the public in recent years. The pandemic, alongside the media, introduced the general public to a side of healthcare that many were unaware of previously, including poor working conditions, lack of access, and the emotional exhaustion that comes from working in healthcare. The pandemic has had a profound effect on burnout in healthcare workers, to the extent that these workers had post-traumatic stress symptoms similar to victims of a large-scale natural disaster (Franceschi, & Brandes, 2021). Nurse burnout is a debated topic, particularly in terms of identifying the cause. A multitude of studies show different causes of burnout, specifically for their hospital or unit. The most prominent causes of burnout include a poor work environment, interdisciplinary bullying, and a lack of leadership by nurse leaders. Burnout has been shown to directly affect patient outcomes, most notably patient safety (Liu et al, 2018). Nurses are frontline workers involved in direct patient care, spending the greatest time with patients providing emotional and physical care. When nurses experience burnout, leading to emotional exhaustion, patient safety and the quality of care are hindered.

While prominent in all nursing specialties, burnout appears differently depending on the healthcare setting and patient care population. A study done in Wuhan, China compares nurse burnout in those working the frontline compared to a typical medical-surgical floor. Burnout

rates were lower in those working Covid-19 frontlines, suggesting that these nurses felt they had more control of their situation compared to those not working directly with COVID patients (Wu et al, 2020). The oncology nurses in this study showed higher rates of burnout, as their patients are exceedingly susceptible to illness. The pandemic also suspended many cancer treatments and clinical trials for patients, adding further workplace stress on nurses leading to higher rates of burnout. Burnout has also been shown to appear differently depending on the occupation. For example, oncologists were shown to have higher depersonalization rates than oncology nurses, while nurses have higher rates of personal accomplishment (HaGani, Yagil, & Cohen, 2022). This difference highlights that interventions for burnout need to be tailored for that particular group or hospital. Another factor affecting burnout found in the studies is age, as young oncologists entering the workforce during the pandemic have high rates of anxiety, moderate to severe depression, and state their doubts about their medical vocation (Jiménez-Labaig et al., 2021). Healthcare is a stressful and emotionally taxing occupation on its own, handling death and dying with both patients and family members on the daily. The pandemic has instilled a fear of the unknown in both patients and staff, changing the face of healthcare forever.

Burnout in the oncology specialty is more prominent compared to medical-surgical specialties, as these workers more often deliver bad news, discuss life-changing decisions with patients and family, and commonly give medications with burdensome side effects. Cancer is a disease with high mortality and, while treatment is improving, care is commonly futile. As compared with diseases such as diabetes or heart failure, cancer treatment is only trying to allow the patient to live longer. Treatment for diabetes or heart failure is intended to make the patient healthier and recover from their illness. Being a provider, knowing that there's a high chance all

of these interventions provided will not sustain the patient's life, can make delivering care extremely difficult.

Figure 2

First Author (year)	Conceptual Framework	Design/Method	Sample/Setting	Major Variables Studied	Measurements	Data Analysis	Findings	Appraisal: Worth to Practice
WHO (2019)	None	None	None	None	None	None	Defining burnout as an occupational phenomenon	None
Ortega-Campos (2019)	None	Systematic literature review	900 oncology nurses	Compassion satisfaction, burnout, and compassion fatigue	Literature review	StatsDirect	19% for low compassion satisfaction, 56% for medium & high burnout, and 60% for compassion fatigue	Increase in burnout can be prevented and minimized by making tailored interventions
Guo (2018)	None	Comparative Cross-Sectional	100 Australian and 197 Chinese nurses	Burnout, reliance, and turnover intention	Online & hardcopy questionnaire	MBI-GS and the CD-RISC	Burnout worse in Australian nurses. Turnover intention predicted this burnout in Australians, while	It is useful information, but effective strategies need to be developed

							low reliance/turnover intention/low exercise predicted burnout in Chinese.	ed that is relevant to the U.S.
Wei (2020)	None	Systematic literature review	18 studies from 7 countries	Burnout, leadership styles	Literature review	Cooper's step-by-step recommendations for research synthesis	Authentic & transformational leadership help leaders demonstrate self-awareness and high moral standards	Useful information, but leadership styles can differ from hospital and community.
Lear (2021)	None	Systematic literature review	7 articles	Nurse burnout in oncology	Literature review	Review	Mindfulness and other activities were beneficial, improving resilience was linked to improving skill, and emotional support interventions all helped.	This is helpful information, but can be manipulate to apply to our country and lifestyle.
Schuster (2021)	None	Questionnaire	1,100 HART coach consults and 98	Burnout, moral distress, and PTSD in health-care staff	Review	Review	25.6% increase in staff reporting as "extremel	This is a great article that shows what

			HART shifts				y satisfied” with support	can be done, but it needs to be adopted in a different manner depending on the hospital/unit.
Liu (2021)	None	Longitudinal study	108 adult medical-surgical units from 23 hospitals in China (once in 2014 and again in 2018)	Changes in quality of care, nurse job outcomes, nursing work environment, non-professional tasks, and nursing care left undone	Literature Review	Review	Increase in nursing care tasks left undone, less reported job dissatisfaction or intention to leave, improved quality of care.	A better nursing work environment was directly related to better nurse job outcomes and quality of care.
Vose (2021)	None	Longitudinal study	-	Burnout, frustration, emotional exhaustion, and work dissatisfaction	Review	Review	Oncologists showed high rates of frustration, emotional exhaustion, and work dissatisfaction	Teamwork is what will help give support to staff
Santos	None	Cross-sectional study	231 nursing	Verbal/physical violence	Chi-square, Fisher’s	Work stress scale	Higher prevalence of	Important, but needs

(2021)			professionals	prevalence, sociodemographic information, work-related violence	Exact, Student T and Mann-Whitney tests		physical/verbal aggression if they were tired at the end of a shift. Higher rates of burnout, work stress, and worse sleep quality in those that suffered from workplace violence.	to be evaluated on a hospital and unit basis.
Paiva (2021)	None	Cross-sectional study	655 nursing professionals	Burnout syndrome	Maslach Burnout Inventory Human Service Survey	Univariate analysis and binary logistic regression models	10.2% stated they were burnout. Marital status, workplace stressors, and melancholy were predictors of burnout.	Strategies need to focus on changing the work process and create a positive environment for coworkers.
Mascaro (2021)	None	Mixed-method approach	130 coordinators from cancer centers in the Southeastern US	Resilience, sleep dysfunction, stress, and incivility	Self-report measures and group discussion	Descriptive statistics	Found that burnout was triggered by feeling overwhelmed.	Having a supportive work culture fostered in teamwork can help

								buffer these feelings of being overwhelmed.
Hlubocky (2021)	None	Cross-sectional study	31 articles	Burnout, and interventions surrounding it.	None	None	The clinician well-being task force was created to improve quality, safety, and value of cancer care. This was done by improving oncology professional's well-being.	This is a good representation of interventions that can be done in hospitals to support a culture of community.
HaGani (2022)	None	Meta-analysis study	34 total studies (4,705 oncologists and 6,940 oncology nurses)	Compare burnout between oncologists and oncology nurses	Maslach Burnout Inventory	Fixed and random effects models used to calculate estimates	Higher depersonalization found in oncologists.	Tailored interventions are needed depending on profession and specialty, as well as hospital.
Jiménez-Labrieg	None	Survey	243 completed the first survey,	Burnout levels and determinants in young	Maslach Burnout Inventory	Linear regression using IBM SPSS	Burnout was more common in oncology	It is important to continuously

(2021)			263 completed the second	oncologists, and the effect the pandemic has had			residents, and was associated with a poor work-life balance, poor vacation time, and higher burnout.	monitor burnout in healthcare workers .
Cui (2021)	None	Survey	105 female nurses	Look at the effects of burnout on immune function	Maslach Burnout Inventory	Spearman rank correlation analysis	Levels of C3, C4, and CD4/CD8 positive T cells were associated with burnout symptoms .	Behavioral and psychological interventions need to be established to reduce burnout and better regulate nurses' immunity.
Nwan ya (2021)	None	Cross-sectional study	31 total articles, covering North America and Europe from 2014-2020.	Burnout in oncology nurses	None	None	Prevalence of burnout was high and has since increased since the pandemic. Major causes of burnout occur in the workplace ,	Interventions need to focus on both institutional fixes as well as the individual's coping mechanism.

							including things that prohibit nurses from working according to their values.	
Franceschi (2021)	None	Meta-analysis	166 clinicians	Burnout in oncology, and what can be done to remediate this burnout.	None	None	COVID-19 has had profound implications on the mental health of clinicians, and has significantly increased the risk of burnout. Promoting team health is vital to prevent this burnout.	In order to face burnout, it is the responsibility of both the hospital and the clinician. Clinicians need to feel empowered, in both themselves and coworkers. Hospitals need to include more activities that built community.
Bui (2021)	None	Survey + 2 questionnaires	28 participants in question	Look at the effectiveness of	Maslach Burnout Inventory	Wilcoxon signed rank test	Found a correlation between teams that	Specific interventions need to

			nature + articles	interventions in decreasing burnout, looking at work and lifestyle risk factors			didn't work well together and high emotional exhaustion.	be made to prevent and reduce burnout in oncology nurses.
Avci (2021)	None	Cross-sectional study	285 medical oncologists	Mindfulness effect on burnout	Mindful Attention Awareness Scale + Maslach Burnout Inventory	Statistical significance	Mindfulness was shown to decrease emotional exhaustion and depersonalization, while increasing personal accomplishment in oncologists.	Hospitals can start enforcing mindfulness as a normal practice for their staff in order to help reduce burnout.
Liu (2018)	None	Cross-sectional study	23 hospitals in China (1542 nurses)	Impact of hospital work environment, nurse burnout, workload, and care left undone on patient safety	Maslach Burnout Inventory	Structural equation modeling	Having a better work environment was directly associated with better patient outcomes and safety.	In order to reduce burnout and increase patient safety, hospitals need to increase staffing, provide better support to nurses,

								and improve their work environment.
Wu (2020)	None	Survey	220 staff members of COVID-19 units and those in usual wards.	Frequency of burnout on the frontline versus those working in usual wards.	Maslach Burnout Inventory	Chi-squared test	Those working the frontlines had less burnout and were not as worried about being infected compared to those working in usual wards.	Suggests that different areas of the hospital might need to have tailored interventions to figure out what's best.

Discussion

Healthcare is an inherently difficult profession to work in, as one is dealing with complex bodily diseases, many of which there is minimal knowledge on, and often deal with death and the dying process. The work environment in this study will consist of bedside nursing, and not include physicians' offices, home health, or outpatient clinics/school. Many contributing factors cause a hospital or unit to have a poor work environment. Within nursing, this poor environment can be attributed to the current nurse shortage, the aging population of baby boomers, and the subsequent aging out of experienced nurses. The relationship these factors have with nurse burnout is cyclical, indicating they all affect one another to the extent that it continues to occur. Burnout exists due to the poor work environment, and the poor work environment worsens due to nurse burnout.

Workplace violence appears in the physical and emotional sense, notably within healthcare, and can have a significant effect on burnout. According to the U.S. Bureau of Labor Statistics, the incidence of violence increased from 6.4 to 10.4 per 10,000 social assistance workers from 2011 to 2018 (Jones, 2021). Patient's themselves or visitors commonly initiate this abuse. Abuse predominantly escalates to violence which is precipitated by numerous factors. The physical set-up of hospitals, including a lack of security, patient areas commonly open to the public, and a lack of metal detectors, are components that increase the likelihood that violence will occur. Many patients in the hospital struggle with debilitating diseases, such as dementia and withdrawal, that cause them to become violent against their better judgment. Furthermore, patients and family members in the hospital are sick and going through difficult times, making tensions worse and emotions high. This violence has always been a problem in hospitals, and the pandemic is bringing it to the light. Some hospitals have interventions in place to combat this violence, such as panic buttons staff can wear to alert safety officers (Shivaram, 2021). When violence occurs, it needs to be treated on a situational basis while ensuring the patient and nurse safety. Verbal abuse is also common, coming from patients, family members, as well as coworkers. Workplace bullying is shown to be more common in new nurses, particularly those with less than five years of experience and nurses who work rotational shifts (Kim, Lee, & Lee, 2019). Bullying from coworkers can be attributed to poor leadership styles, and feeling unsatisfied in one's job. While this is a situational occurrence, some people are simply rude with no explanation. There are deeply engrained management styles, or the lack thereof, that allow this bullying to continue. Nurse managers are extremely important in preventing, recognizing, and intervening with bullying. Violence of all kinds increases the rate of burnout in nurses, as it becomes one more reason to feel disdain for a

previous passion. Hospital management must have detailed repercussions established for how to handle abuse, whether it is coming from a patient, family member, or another coworker.

Another critical factor that impacts nurse burnout is leadership. Issues arise when managers have inappropriate leadership style or an absence of leadership in general. Although individual factors, such as being unmarried and perceiving stress in the workplace, are predictors for higher burnout in nurses (Paiva et. al, 2021), the responsibility for burnout is greater from employers rather than employees. When an organization has the appropriate leadership style, in higher management as well as in nurse managers and charge nurses, burnout is less likely to occur. A study showed that when nurse leaders demonstrated authentic and transformational leadership styles, burnout in nurses was lower compared to other leadership styles (Wei et. al, 2020). Common leadership styles in nursing include laissez-faire, democratic, transactional, and transformational. Laissez-faire leaders deliver a hands-off approach, which typically works well with highly experienced nurses but fails for new nurses which is the primary population of current nurses. Democratic leaders encourage collaboration, working well in improving quality and inclusion, but fails in emergent situations that need a quick decision to be made. Transactional leaders look at rewarding and punishing workers depending on their performance, working well with problem-solving, but fall short at encouraging and inspiring the team. Finally, transformational leaders look at the entire picture, working at building confidence and trust with nurses in order to improve the facility (Wofford, 2021). Ultimately, a transformational leadership style allows the manager to empower and promote nurse engagement to create healthy work environment. The work environment, cultivated through the suitable leadership style, needs to ensure employee wellness. Moreover, smarter budgeting should be addressed with all workers.

The entire organization from the bottom-up needs to ask relevant and timely questions in order to introduce better data surrounding causes of burnout.

While burnout is fully preventable, it is unrealistic for hospitals and nursing staff to not have a set of interventions in place to offset the inevitable burnout. The most researched interventions concerning burnout includes mindfulness practice, along with hospital created support programs. Mindfulness is one's ability to be fully present, bringing awareness of what is actively occurring while not being overwhelmed or overly reacting (Mindful, n.d.). One practice of mindfulness includes meditation, where a person becomes fully in tune with sensation, emotion, and thoughts. Mindfulness can be utilized individually by going on meditation walks, being present in daily conversation with others, being kind to the heart, and practicing bedtime meditation. Nurses experience negative encounters every day when caring for patients and families, more so in oncology. Engaging in mindfulness allows nurses to give themselves compassion, and the time to process what happens at work. One study looks at different mindfulness techniques the reduce compassion fatigue and burnout in oncology nurses, including yoga-based meditation, knitting while debriefing on a stressful situation that had occurred, and attending an education program on stress management (Lear, 2021). These different interventions highlight that mindfulness can be sought through a practical activity, like knitting, or through learning strategies and putting them to use on one's own. It is important to note that these interventions must be practical, as time commitment is a common barrier to practicing mindfulness. For example, while knitting provides a physical and practical manner of relieving stress, many do not have time whether at work or at home to sit down and knit. Another study looks at mindfulness in oncology physicians, finding that as mindfulness activities increases, emotional exhaustion and depersonalization decrease (Avci et. al, 2021). Practices that were associated with mindfulness include having a hobby,

participating in regular exercise, and having more experience as a physician. From these studies, it can be concluded that interventions need to be researched and established on an individual level. Different specialties, professions, and learning styles will respond distinctively depending on the mindfulness activity.

Alongside individual mindfulness practice, leadership and hospital management can create support groups focused on encouraging teamwork to decrease levels of burnout in staff. One example is the Hematology/Oncology/Stem Cell Transplant Advancing Resiliency Team (HART), which was first introduced at Boston Children's Hospital by Michelle Schuster. Miss Schuster established the HART team to help nurses and other medical staff through their battle with PTSD in caring for hematology, oncology, and stem cell transplant patients. HART coaches work days every week for eight-hour shifts, both on days and nights, and aim to create a healthier work environment to improve morale on the unit. While these coaches are nurses and not trained therapists, they are able to provide a confidential space to talk about events and provide education on handling the specialty. Since introducing HART, staff have stated they felt more supported by leadership and took more breaks throughout their shift, with a 25.6% increase saying they are extremely satisfied with unit support (Schuster, 2021). Another support group established is the Clinical Well-Being Task Force, created by the American Society of Clinical Oncology (ASCO) that's led by two co-chairs and sixteen members of ASCO. This task force was created in order to address the 45% of ASCO member medical oncologists that reported feeling symptoms of burnout such as emotional exhaustion and depersonalization (Hlubocky et. al, 2022). The purpose of this intervention is to improve the safety, quality, and value of cancer care through improving the well-being of oncologists. In order to remain dedicated, both within the oncology specialty and throughout the pandemic, oncologists have remained empowered and not lost hope. The task force

encourages self-focused interventions, such as meditation, deep breathing, and keeping attention to one's well-being, as well as relational and job-focused interventions to prevent burnout. Relation-focused interventions they stress includes lobbying for better team communication, and making a true effort to connect with coworkers. Job-focused interventions they utilize include debriefing after difficult situations, having confidential employee programs, and improving access to education on compassion fatigue and burnout.

Ultimately, interventions on the individual and hospital level must be personalized and practical, ensuring that nursing staff are able to commit them into practice. Burnout must be addressed more from the top down in hospitals, starting with management to see a ripple effect on nursing staff. Individual mindfulness will only help so much to reduce burnout that already exists, but management and leadership interventions such as support groups, teamwork, and communication can to be established in order to prevent burnout from occurring.

Limitations

Limitations within this study includes the location in which the studies were conducted, some being done through the United States while some were conducted abroad. The way in which healthcare is conducted in Western society is extremely different compared to European countries, so the level of nurse burnout and patient quality of life could be measured differently than in the U. S. Another limitation is the articles that only look at one particular type of cancer, meaning that the results can only be applied to that specific group of patients. Furthermore, limitations persist in the way burnout was measured. Primarily the articles measured burnout by nurse statements and opinions, indicating there is no objective way of measurement. This brings about limitations as one nurse's burnout may look entirely different from another nurse. Every hospital or healthcare organization has their own environment and culture, indicating that one

hospitals nurse turnover and burnout rate may look different than other hospitals. All of these limitations are important to consider when evaluating the conclusions deduced from these studies.

Research on burnout in nursing is a systemic, ongoing topic that needs to be further researched and handled appropriately by nursing and hospital staff. Burnout is a serious topic that nursing students and all nurses, no matter the specialty, need to be aware of. With the recent pandemic and the current nursing shortage, the U. S. healthcare system simply cannot afford for nurse burnout to persevere. Nurses need to have strong emotional intelligence in order to be appropriately prepared to recognize the signs of burnout, how to prevent burnout, and how to treat their burnout selves. When nurses are better supported through teamwork, initiated by leadership, and allowed to feel valued and heard in their profession, patient safety and quality of care is improved.

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