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An Integrative Review:

The Experiences of Stress, Burnout, and Compassion Fatigue by Ambulatory Care Nurses

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NUSR 7863: Thesis Research Project

Abstract

Aim: One aim of this integrative review is to highlight workplace issues outpatient (ambulatory care) nurses experience, specifically related to stress, burnout, and compassion fatigue. Another aim is to bring awareness to and discuss recently implemented tools and strategies to help alleviate these manifestations.

Background: Stressors in the outpatient setting date back to the 1970s when psychologist Herbert Freudenberger mentioned the burnout he experienced while in a Free Clinic. He describes feeling exhausted due to the demands on energy, strength, or resources. In modern-day, 50 percent of nurses experience workplace burnout, and most of them confess to feeling emotional exhaustion. Various studies discuss the challenges nurses endure in the inpatient setting, but only a few focus on ambulatory healthcare.

Method: Whittemore and Knafl's approach was used to conduct this integrative review. A comprehensive search was conducted, identifying studies published between January 2011 and May 2022 using predetermined inclusion/exclusion criteria and search terms. Databases included Cumulative Index to Nursing and Allied Health Literature (CINAHL), PsychInfo, and OVID via Medline. Identified studies were evaluated and appraised using the Johns Hopkins Nursing Evidence-Based Practice Research Evidence Appraisal Tool. A thematic analysis was utilized, and emergent themes and sub-themes were extracted for the four research questions related to contributing factors, effects, measures, and tools and strategies.

Results: Six studies met the criteria. Collectively, 12 themes were identified across four research questions, such as the nurse's experience; workload/staffing issues; patient experiences, traumas, and transition phases; and interprofessional relationships. Seven sub-themes were identified.

Conclusion: This integrative review summarizes what is already known about stress, burnout, and compassion fatigue among nurses who work in the outpatient healthcare setting. It also suggests promoting additional research in this area and future services to help reduce these manifestations in the fast-growing nursing specialty.

The Experiences of Stress, Burnout, and Compassion Fatigue by Ambulatory Care Nurses

Nursing is more than just putting on a pristine scrub uniform, administering medications, and charting patients' care for an entire work shift. Nurses are trained professionals with a knack for providing various complex skill sets specific to their workplace specialty (International Council of Nurses, 2022). A nurse's work environment typically consists of hospitals, physician offices, home healthcare, and skilled nursing facilities. Although nurses can specialize their knowledge and experience to a specialty, all nurses work under the common practice known as the nursing process. The five stages of the nursing process involve the completion of a systematic assessment, working autonomously and collaboratively with other health care professionals to appropriately diagnose a patient, creating a plan of care individualized to each patient and their healthcare needs, carrying through effectively with the plan of care, and ultimately, evaluating the patient's health and well-being measurable to the expected outcomes related to the plan of care (American Nurses Association [ANA] n.d.-a). The process previously stated illustrates how nurses perform their ethical duties unwearied to recognize and preserve the healthcare of individuals (ANA, n.d.-b).

Determined by the health care facilities' requirements, a nurse may be practicing as a licensed practical nurse (LPN), registered nurse (RN), or an advanced practice registered nurse (APRN). Regardless of certification, nurses experience the physical and mental demands of the profession. The U.S. Bureau of Labor and Statistics (2021) predicts a seven percent growth in the nursing occupation. This growth is largely due to an increase in prevention medicine and a steady increase in chronic illnesses as the baby-boomer population grows older yet are living longer lives than previous generations. In spite of the rewarding healthcare profession, it is nationally known that nurses are woefully at risk for exposure to illnesses (U.S. Bureau of Labor

and Statistics, 2021) and bloodborne pathogens. Three of the most common bloodborne pathogens nurses are at greatest risk of contracting are human immunodeficiency virus (HIV), hepatitis virus B (HVB) and hepatitis virus C (HVC) (Centers for Disease Control and Prevention, 2019). The ANA reports that on average, up to 800,000 needle sticks or other objects pierce the skin per annum (ANA, 2010). Nurses are invariably in contact with infected individuals and exposed to hazardous materials and environments, such as radiation. A nurse's profession can require extended periods of standing, walking, and lifting persons or heavy objects with a lack of ergonomics. Lipscomb et al. (2004) reported that the physical demands of nursing can lead to severe musculoskeletal disorders that unfortunately affect the nurse’s neck, shoulders, and back. Mental demands, also known as emotional demands, are referred to situations such as the role requirements that interfere with or increase the workload and nurses overly expressing compassion (Balducci et al., 2014). The consequences of physical and emotional demands nurses come up against lead to feeling job dissatisfaction and resigning from the specialty or career as a whole. These types of changes lead to job shortages. Other contributing factors that leave nurses dissatisfied within the profession are the interprofessional relationships within the workplace and organization factors that vary from managerial personnel to the introduction of and expectation with using new technologies (Moustaka & Constantinidis, 2010). Despite nurses' silent cry for help during challenging moments, they are adjudged to comply with the nursing code of ethics and commit to the excellent quality of care appropriate to the profession (Gaines, 2020). Nurses lose their drive, becoming overwhelmed with the workplace's demands and instability, with direct causation of stress. Nurses' stress could interfere with a patient's quality of health care.

Of all essential workers, nurses are recognized to be less healthy than the average American due to weight gain, unhealthy level of stress, and lack of sleep (ANA, Healthy Nurse Healthy Nation [HNHN], 2021). Because of this national problem, HNHN has joined with organizations who have partnered with the ANA to bring awareness and aid in improving nurses' health and well-being. The health challenges involve improving activity, rest, nutrition, quality of life, and safety (ANA, HNHN, 2021).

Stress is a subjective phenomenon, defined by theorist Hans Selye, as a general term to describe a body's response to demands (Tan & Yip, 2018). Stress encompasses the feeling of being overwhelmed and the inability to cope. A study conducted by Mohammadi and Haghighi (2011) that examined the relationship between stress and burnout indicates that 86.7 percent of nurses experience moderate stress because of their workplace. Physical, emotional, and psychosocial abnormalities are displayed when nurses are stressed. Somatic responses to stress can include but are not limited to sleeping difficulties, changes in appetite, and neuralgia (Getto, 2011). Some of the body's emotional responses to stress are displayed as irritability and irrational thinking or behavior (The Mental Health Foundation, 2021). Psychosocial effects nurses may experience due to stress are an imbalance in family dynamics, depression, and substance abuse (Kowalczuk et al., 2017). Nursing stress in the nursing workplace can be determined by an increased workload, staffing issues, and lack of support from either upper management or colleagues (Louch et al., 2017). Muncer et al. (2001) also mention that lack of autonomy, nurses wearing the hat of multiple roles, and witnessing patients suffer contribute to their stress. The longstanding plight of chronic stress within the nursing profession related to demands leads to nursing burnout and compassion fatigue. Nurses living in a constant state of stress begin to

display unprofessional habits such as regularly staying away from work, caring less about patients and the patient's care, and less work engagement (Keykaleh et al., 2018).

Burnout is a workplace phenomenon, defined by The World Health Organization (2019) as a condition that is stemmed from persistent workplace stress that is not well managed, causing exhaustion and diminution of energy. Kelly et al. (2021) touches on the issues stating that burnout contributes to increased healthcare financial loss due to nursing resignation, postponing patient care or procedures, and nursing new employment training. Some of the risks for nurse burnout include being a woman, working in intensive care units, lacking spirituality, and working as a new graduate nurse (LeVeck, 2018).

Compassion fatigue is a psycho-emotional response to chronic stress and burnout within the organization that negatively affects patients' quality of care due to nurses feeling helpless and experiencing prolonged exposure to unhealthy work challenges, including intense patient care (Nolte et al., 2017). The predominance of pediatric nurses experiencing compassion fatigue is 26.95 percent, and non-pediatric nurses is 59.87 percent (Zhang et al., 2018). Stress, burnout, and compassion fatigue are not limited to the inpatient hospital setting. Although much of these concepts have thoroughly painted a picture for the challenges nurses face, majority of data have been a result of acute care and inpatient healthcare settings. Awareness also needs to be brought to the challenge nurses experience working in the outpatient setting, also known as ambulatory care setting.

Nursing personnel encounter constant challenges in the outpatient healthcare setting, some of which have to do with the specialty growing quickly. The specialty continues to grow in popularity with the goal to provide healthcare services at a cheaper cost without needing inpatient resources (American Hospital Association, 2021). Misfortunes noted in the outpatient

setting include the inappropriate dissemination of patients' care to other specialties, the unpredictable state of health care delivery, poor demonstration of individualizing care to each patient and their needs, and difficultly managing the expansion of the growing outpatient setting (Singh, 2021). The ambulatory care setting differs from the inpatient setting due to various objectives. For example, the inpatient setting is noted to be a treatment center, where an admission occurs and patients are able to seek medical treatment from a team with a skilled specialty with overnight observation (Cigna, n.d.). In contrast, the ambulatory care setting typically does not offer any hospital admission services, although specialty medical treatment is offered (Institute for Patient-And Family-Centered Care, n.d.). The patient's goal is to seek routine preventative care and have non-critical, acute concerns addressed. Professional nursing care specific to the outpatient specialty is documenting patients' chief complaint and reason for visit, obtaining a history and physical, and venipuncture blood draws. These tasks are in addition to medication administration, performing diagnostic testing, and developing a plan of care that may involve collaboration with other professional healthcare specialties, all in a short-term visit (EveryNurse Staff, 2021). Patients can also be seen on a follow-up basis. Therefore, outpatient nurses are often able to learn the needs of health seekers and establish lifelong rapport with them.

As the outpatient profession continues to expand, the increased patient workload can cause stress and burnout. The relationships and empathy nurses experience with patients along with giving their personal all can lead to compassion fatigue (Peters, 2018). Hence, there is a need to identify the causes of stress, burnout, and compassion fatigue among nurses who work in ambulatory/outpatient healthcare, as well as effective tools that can help nurses alleviate the phenomena and promote health and well-being.

Background

Nursing is said to be the most trusted profession (Short & Derouin, 2022) while taking the lead in national ratings for honesty and ethics for the past 20 years, according to the Gallup poll (Yale School of Nursing, 2022). The notable Florence Nightingale paved the way for the profession, beginning with the Crimean War during the nineteenth century. Even during this time, Ms. Nightingale witnessed troops dying along with being placed in unsanitary environments with a lack of appropriate food and medication essential to the healing process (The National Archives, 2022). Approximately five years later, women left their homes to serve as nurses during the American Civil War. By 1865, those women could say they cared for soldiers diagnosed with pneumonia, gastrointestinal infections, some that caused diarrhea, and malaria (Texas Women's University, 2019). Imagine the traumatic stress the war left on women.

Since the 1950s, stress has been viewed as an occupational hazard, although it was not until the 1960s that stress was officially assessed by psychoanalyst Isabel Menzies (Hughes & Jennings, 2008). Menzies completed a case study, 'The Functioning of Social Systems as a Defense Against Anxiety,' discussing the observations from teaching hospitals. These same hospitals established working norms to protect nurses from the stress they come up against as they gained rapport with sick patients and ones near death (The Therapeutic Care Journal, 2011). However, time continued to pass and stressors steadily increased for nurses. Hughes and Jennings (2008) describe the reasoning behind the rise in stress levels during the 1980s were due to technological advancement, increasing healthcare costs, and the chaotic workplace setting. In a health risk appraisal study, the ANA (2017) identified eighty-two percent of nurses noted they were at a "significant level of risk for workplace stress" (p. 4). These nurses' workplace environments consisted of either the hospital setting, acute care, or academic setting.

Burnout is a direct cause of stress, analyzed by psychologist Herbert Freudenberger. Freudenberger mentions being directly affected by the burnout syndrome after working in a Free Clinic where care was given to individuals, poor and young, needing treatment for infections, distressing psychedelic experiences, sexually transmitted diseases such as venereal disease, abscesses, and common illnesses (1971a as cited in Fontes, 2020). The feelings are described as "becoming exhausted by making excessive demands on energy, strength, or resources" in the workplace (Freudenberger, 1974, p.159 as cited in Heinemann & Heinemann, 2017, p. 2). Unlike stress, where it is possible to take a break, cope with the issues, and move forward, burnout makes it challenging to have any interest or motive to complete one's work (Southeast Missouri University, n.d.). In 2019, the Professional Research Consultants conducted the Nursing National Engagement Report, and studies found that of the fifty percent of nurses experiencing burnout in their workplace who do not plan on leaving, ninety-seven percent report emotional exhaustion (Professional Research Consultants, 2019).

Originally described as the "loss of the inability to nurture," in 1992, Carla Joinson studied the effect of compassion fatigue on emergency department nurses (Boyle, 2011). Compassion fatigue is secondary traumatic stress and burnout (Southeast Missouri University, n.d.). Compassion fatigue results from attempting to take on the patient's pain and suffering. This stress phenomenon may lead to anxiety, depression, post-traumatic stress disorder, obsessive-compulsive disorder, and substance abuse (Thurrott, 2021) for nurses and other healthcare professionals, making it more challenging for nurses to perform their roles and duties.

The Nursing Stress Scale (NSS) was first implemented in 1981 to one hundred twenty-two professionals, including registered nurses, licensed practical nurses, and nursing assistants practicing on five hospital units (French et al., 2000). The NSS is a thirty-four-item, four-point

psychometric scale created to evaluate the prevalence and most significant sources of stress experienced by nurses in the hospital setting. There is also the Visual Analog Scale, used for the first time in 1921 to rate an individual's pain (Physiopedia, n.d.), whether acute or chronic, as it is measured between no pain and worst pain (Delgado et al., 2018). However, in the study by Hand et al. (2019), participants were required to address their perceived stress level using a ten-point scale. Christina Maslach created the Maslach Burnout Inventory questionnaire in 1981 to measure burnout in three dimensions: emotional exhaustion, depersonalization, and personal accomplishments (Davis et al., 2013). Of the studies found, the twenty-two-question self-administered test was studied in a hospital setting such as the emergency room (Williamson et al., 2018).

Although there are studies available to understand the stressors of nurses working in the physical hospital setting, there's a scarcity of literature that explicitly describes the stress, burnout, and compassion fatigue experienced in the outpatient healthcare setting. Ambulatory healthcare is complex; it offers a variety of avenues for patient care that is structured to implement independent and collaborative practice. Healthcare within this setting not only focuses on one patient, but there is also the family, populated groups, and communities who require a treatment plan which is conducted outside of the physical hospital setting (Spyder, 2021). Whether the services provided are preventative or diagnostic, the patient and healthcare worker can interact either in-person or virtually, and treatment services do not require a visit nor overnight stay in the hospital (Snedaker & Rima, 2014).

The well-being of nurses influences the prosperity of healthcare and a healthcare organization. Considering patients are living longer, healthcare maintenance can be done outside of the hospital setting. As healthcare continues to advance, there has to be an acknowledgment of

the challenges nurses experience in the outpatient/ambulatory care setting. Constant staff shortage, interactions with patients, and their expectation for nurses to know and properly treat their concerns (Starc, 2018) can lead outpatient nurses to feel burned out or to experience compassion fatigue. It is a popular misconception that ambulatory care is less stressful for nurses than the hospital setting. Haddad et al. (2022) concluded that inpatient nurses suffer more from insults than outpatient nurses. However, in the outpatient setting, it can be described as an environment where nurses should always expect the unexpected with a high patient volume, which requires diverse treatment plans and level of care. Instead of allowing nurses to endure the hardship of the evolving outpatient setting, this is a time to explore and implement solutions to these issues. This integrative review aims to support ambulatory care nurses and implement tools and strategies to promote their health and well-being as the specialty continues to advance.

Aim

The researcher was inspired to conduct an integrative review of published literature that acknowledges the stress, burnout, and compassion fatigue that nurses experience while working in the outpatient healthcare setting, as well as interventions known to be effective. This integrative review was aimed to summarize what is already known in the literature and to recognize the gaps in an effort to promote additional research and provide future services and resources to outpatient nurses.

Objective

The goal of this integrative review was to highlight the issues nurses experience, specifically within the outpatient healthcare setting, who provide any form of care to patients and focus less on the indications within the hospital setting. Nurses caring for patients within the outpatient setting are confronted with challenging events that can lead them victimized to stress,

burnout, and compassion fatigue. This review was also conducted to bring awareness and discuss recently implemented tools and strategies to allay these manifestations. There is a need to acknowledge ambulatory care as a growing specialty requiring nurses to provide safe, ethical, and quality care. Most importantly, nurses are entitled to care for themselves if they need to be the healthcare superheroes they are shown to be and exhibit the qualities they are best known for.

Conceptual Definitions

1. Stress- any type of change that causes physical, emotional, or psychological strain (World Health Organization, 2021)
2. Burnout- exhaustion of physical or emotional strength or motivation usually as a result of prolonged stress or frustration (Merriam-Webster, n.d.-a)
3. Compassion Fatigue- the physical and mental exhaustion and emotional withdrawal experienced by those who care for sick or traumatized people over an extended period of time (Merriam-Webster, n.d.-b)

Research Questions

Accordingly, the research questions to lead this integrative review were:

1 What contributes to the stress, burnout, and compassion fatigue ambulatory care nurses experience?

2 How does stress, burnout, and compassion fatigue affect the ambulatory care nurse?

3 How are stress and burnout measured?

4 Which tools and strategies have been implemented to alleviate the symptoms related to stress, burnout, and compassion fatigue for nurses who work in the outpatient setting?

Methods

Design

The integrative review method was centered around Whittemore and Knafle's (2005) 'The Integrative Review: Updated Methodology.' Because Kirkevold (1997 as cited in Whittemore & Knafle, 2005) trusted the exercise of an integrative review being written based on a theoretical point of view that encourages utilizing broad and diverse sampling data (Whittemore & Knafle, 2005), this review method allows a variety of study designs. This integrative review included study designs such as descriptive pilot, cross-sectional, and qualitative studies, pre-and post-test designs, and multicentered cross-sectional designs. This approach enables readers to grasp current information generated to explore the phenomenon. Whittemore and Knafle’s (2005) methodological review is composed of five stages which include problem identification, literature search, data evaluation, data analysis, and presentation. The problem identification was previously discussed. The other four stages will be presented next.

Literature Search Stage

Search Strategy

This stage expounds on the search terms, databases, and other search strategies and expatiates on the inclusion and exclusion data intended to highlight literature apposite to the integrative review's topic (Whittemore & Knafle, 2005). The information was generated using an advanced search tool by Kennesaw State University's online library. To obtain the most appropriate literature to answer the integrative review research questions, the following electronic databases were used within the advanced search: Cumulative Index to Nursing and Allied Health Literature (CINAHL), PsychInfo, and OVID via Medline Database. Boolean operators were used within each electronic database with the following search terms: *ambulatory*

care, burnout, caring, compassion fatigue, fatigue, nurses, nursing, stress, oncology nursing, and outpatient clinic. No additional search strategies were used.

Inclusion and Exclusion Criteria

Specific criteria were included to reduce the possibility of bias and encourage readers to independently determine the literature's validity (Melillo et al., 2020). Published literature was included if the nurses mentioned were currently practicing in the outpatient/ambulatory care setting and possessed an active license practicing as a practical or registered nurse. The specificity of the degree obtained was not applicable due to the risk of omitting significant studies. Articles selected were to address one or more of the following phenomena: stress, burnout, and compassion fatigue The literature search was limited to include articles published in English between January 2011 and May 2022. Grey literature was excluded. Literature was also excluded if articles were not full text, were not in peer-reviewed academic journals, were published in a language other than English, or focused on the challenges nurses experienced practicing within the inpatient/bedside setting. Additionally, literature that included healthcare workers who were described as physicians, physician assistants, medical or nurse assistants, and/or students were omitted.

The literature search was conducted from February 2021 until May 2022 to ensure no additional articles were published specifically that met the inclusion criteria. A comprehensive search concluded with 1,104 prospective articles using the previously mentioned search terms. Initially, titles were reviewed, which removed 848 articles because they were duplicates and/or were not specific to ambulatory healthcare. Titles for 256 articles were printed and reviewed. Two hundred twenty-eight articles were not applicable since they were not full text. Twenty-eight abstracts were saved in a desktop folder and thoroughly read by the researcher to confirm

which articles applied to inclusion criteria and which were to be eliminated due to exclusion criteria. Twenty-one articles discussed the phenomena; however, the method sections included all different healthcare workers and were not specific only to licensed nurses, so they were eliminated. Seven articles were thoroughly read to determine if all criteria were met. One article was removed after determining that a tertiary healthcare facility does not include outpatient or ambulatory healthcare. Ultimately, six articles met the criteria for review (Hand et al., 2019; Ko & Kiser-Larson, 2016; Melvin, 2012; Potter et al., 2013; Tellie et al., 2020; Wahlberg & Bjorkman, 2018). The selected six articles' reference lists were reviewed with the hope of identifying additional articles. Unfortunately, no other articles were appropriate in accordance with inclusion and exclusion criteria. This information was documented and presented in a PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analysis) diagram. Refer to Appendix A for the flow diagram of the screening process.

Data Evaluation Stage

Once the search strategy was complete and the final sample of articles was identified for the integrative review, each piece was evaluated and appraised using the Johns Hopkins Nursing Evidence-Based Practice (JHNEBP) Research Evidence Appraisal Tool (Johns Hopkins University, n.d.). Dang and Dearholt (2018) describe rating scales as an option to critically appraise evidence in a "structured way to differentiate evidence of varying levels and quantity" (p.130). The level of evidence ranges from one to three. The highest level of evidence is Level I, classified as either a Randomized Controlled Trial (RCT) or an Experimental Study. Level II studies are noted to be Quasi-Experimental, and Level III studies are Non-Experimental. Studies are also rated based on quality. Grade A is high quality, B is good quality, and C is equivalent to low quality or major flaws.

Data Analysis Stage

The data analysis stage is a requisite to enhancing rigor in an integrative review. This process comprises the primary literature chosen to support the review that is eventually "ordered, coded, categorized, and summarized into a unified and integrated conclusion about the research problem" (Whittemore & Knafle, 2005, p. 550). The motivation behind the data analysis stage is to experience a scrupulous and neutral interpretation of the original literature that, when amalgamated, creates an informative synthesis.

A thematic analysis method was utilized for the process of data analysis in this integrative review. Thoroughly explained by Dwyer et al. (2020), the thematic analysis method is widely used and flexible when recognizing, examining, and describing patterns within data. The six phases essential to identifying unifying themes are familiarizing one's self with their data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report (Braun & Clarke, 2006, as cited in Dwyer et al., 2020).

Presentation Stage

Once the literature was evaluated and the quality appraisal was complete, data were transcribed from each literature source and displayed in the form of matrices to help aid in data interpretation and identification of themes. Data extracted were author (s), year of study, study design, sample size and setting, the purpose of the study, quality rating and level of evidence, and contributing factors/results. A matrix was created for each integrative review research question. Within each matrix, themes and subthemes emerged. Literature that supported the question was grouped to that matrix.

To help organize the commonalities among the studies used for this integrative review, a color-coding technique was implemented. During this process, the contributing factors/results section for each question were reviewed for key words and/or phrases that helped answer the question. Once key words and phrases were identified, they were placed into themes and subthemes. The words and phrases belonging to each theme and respective subtheme were represented as one color. For example, for integrative review question number one, five overall themes were identified and color-coded as follows: workload= blue; patient experiences, traumas, and transition phase=orange; interprofessional relationships=green; organizational issues with subthemes preparedness/readiness, resources, and physical work environment=red; and nurses' experience with subthemes thoughts and feelings and rest and recuperation= yellow. Both researchers assisted with the task independently and then met several times throughout the process to reconcile any discrepancies and to finalize the themes and subthemes. Appendix B provides a visual representation that supports all information gathered for the thematic analysis.

Results

Description of Studies

This integrative review was built on six studies. In regards to quality rating and level of evidence, there were Level II (*n*=2) and Level III (*n*=4) literature used in this integrative review. All six studies were rated to be good quality. Included were two quantitative and four qualitative studies. Of those, there was one descriptive study design, two descriptive pilot studies, one descriptive cross-sectional study, one case study design, and one pre-/posttest design. All studies were published between the years 2012 and 2020 and focused on nursing care that took place in the ambulatory/outpatient healthcare setting. Three studies were centered around the oncology specialty, one looked at telehealth nursing, and two examined community health that

differentiated between hospice/palliative care and human immunodeficiency virus (HIV). The HIV setting not only included adult health but the pediatrics and neonatal populations as well. The locations also varied. Two studies were completed at a cancer center, one with home health, one at an infusion center, one at an HIV clinic, and one at a call center. Number of nurse participants in each study ranged from six to one hundred. Licensed practical nurses, registered nurses, and advanced practice nurses were found in some of the studies. Four studies were conducted in the United States (U.S.), one was in Sweden, and one was in Africa.

Themes and Subthemes

The researchers analyzed findings from six studies; ultimately, all four integrative review questions were addressed. Four articles addressed research question one and identified the contributions to the stress, burnout, and compassion fatigue the ambulatory care nurses experience (Ko & Kiser-Larson, 2016; Melvin, 2012; Tellie et al., 2020; Wahlberg & Bjorkman, 2018). Four studies addressed research question two and noted the effects of stress, burnout, and compassion fatigue on an ambulatory care nurse (Ko & Kiser-Larson, 2016; Melvin, 2012; Tellie et al., 2020; Wahlberg & Bjorkman, 2018). Three articles addressed research question three and identified reliable tools that measured stress and burnout (Hand et al., 2019; Ko & Kiser-Larson, 2016; Potter et al., 2013). Finally, four articles addressed research question four and named the tools and strategies created and implemented to alleviate the previously mentioned phenomena for nurses in the outpatient setting (Hand et al., 2019; Ko & Kiser-Larson, 2016; Melvin, 2012; Potter et al., 2013). Themes and subthemes were identified for each research question as listed on Table 1 in Appendix C.

Research Question One: Contributing Factors

Research question one asked what contributes to the stress, burnout, and compassion fatigue ambulatory care nurses experience? Four of the six articles addressed this question. There were five themes and five subthemes identified. The first theme was workload/staffing issues. This theme addressed the copious amounts of work nurses were expected to complete while working in a demanding, understaffed work environment. Although patient death and dying were mentioned, Ko and Kiser-Larson (2016) also expressed that the oncology nurses' workload was one of the most stressful factors. One nurse commented that the paperwork increased and stated, "I come home after working 10 hours and I have 3 to 4 hours of paperwork to do…" (Melvin, 2012, p. 609). Nurses at the HIV clinic described their work caseload as affecting the time they had to spend with the patients (Tellie et al., 2020). Unfortunately, nurses in the call centers felt they were seen as the "dumping grounds," considering they had to address calls from different areas of expertise with limited resources (Walhberg & Bjorkman, 2018).

The second theme was related to patient experiences, traumas, and transition phases that the nurses were able to be a part of. The patient's experience is comprised of the relationships with the healthcare system as a whole which includes the healthcare team (Agency for Healthcare Research and Quality, 2016). Although the focus is on the patient and it is expected for nurses to provide exceptional care during a vulnerable time, careful attention should be made to those same nurses. Of the stress levels and contributors to stress, patient death and dying were noted to be among the most stressful factors (Ko & Kiser-Larson, 2016). Similarly, the community home health registered nurses working in hospice and palliative care were repeatedly exposed to death and dying patients, which led to distress related to "patient and family trauma and suffering" (Melvin, 2012, p. 610). The most disturbing but most occurring issue nurses

experience with patient care was described in the study by Tellie et al. (2020), which explained how the patients unexpectedly stopped their treatment and were noncompliant with their treatment plan.

The following theme evolved around interprofessional relationships that included experiences related to conflict and support. Ko and Kiser-Larson (2016) found that outpatient oncology nurses experienced conflict with the physicians and nurses. This was linked to the unacceptable work behaviors other colleagues felt were inappropriate and the defining of how shifts were determined (Rodriguez & Chaves, as cited in Ko & Kiser-Larson, 2016). Telenursing is such a monumental change in healthcare. Still, those nurses felt as though there was invaluable support at times from their colleagues when they needed to ask clinical questions regarding patient care (Walhberg & Bjorkman, 2018). This affects the expert level of care the nurses are capable of providing. The authors stated this issue leads to reports of high levels of job-related stress. This also negatively impacted the nurses' performance review.

Next, the organizational issues theme had three subthemes: preparedness and readiness, resources, and physical work environment. Overall, the nurses felt unsupported while working with limited resources, whether from the employer or the workplace environment. Although identified, the least stressful contributing factor for oncology nurses working in the outpatient setting was inadequate preparation for patient care during the transition phases (Ko & Kiser-Larson, 2016). The contributing factors of workplace stress for the telenurses identified in the literature were related to the healthcare providers' lack of awareness related to the complexity of telehealth nursing (Walhberg & Bjorkman, 2018). Unfortunately, those same nurses had to work in an environment unfit to provide quality care. They experienced working in small, dirty workspaces where other colleagues were present and speaking loudly, which can be a significant

distraction. There were also instances when technological issues were presented, and the computer systems worked improperly. How effective is that environment in providing confidential, effective, quality care?

The nurses' experience was the fifth and final theme identified for question number one. This experience was gathered with the nurses' dialect. Their feelings and the effect of their feelings were verbalized. Within this theme were two subthemes: thoughts and feelings; rest and recuperation. The views and feelings of the nurses in the literature by Ko and Kiser-Larson (2016) described the uncertainty with the patient's treatment plan as one of the stressors, but it was a less stressful feeling compared to other categories identified on the Nursing Stress Scale. Professional compassion fatigue was noted in the hospice nurses, and it was experienced by the nurses working in the outpatient retroviral clinics. Nurses expressed that they felt as if there was no post-work recovery occurring (Melvin, 2012). There was also mention of feeling frustrated and the inability to disengage from patient care due to patient demands in the outpatient retroviral clinic (Tellie et al., 2020). There is no work-life balance. Other nurses working in the call centers were alone and vulnerable and felt that taking breaks was difficult (Wahlberg & Bjorkman, 2018).

Research Question Two: The Effects

Question number two asks, 'How does stress, burnout, and compassion fatigue affect the ambulatory care nurse?'. Four of the six studies addressed this question. There were two themes but no subthemes identified. The first theme was specific to the emotional and physical response of the nurses who endured stress and compassion fatigue in their ambulatory care workplace. Sadly, the LPNs and RNs working in the outpatient oncology center described that their emotional cost for caring or coping mechanism had them crying or withholding tears or feeling

anxious and uptight (Ko & Kiser-Larson, 2016). Nurses practicing within palliative care/hospice appeared to have the inability to disconnect the setting from personal life as it was said by a nurse "feeling sole responsibility of patients and worry about them at home at the end of the day" (Melvin, 2012, p. 609). Study participants at the antiretroviral clinic had a mix of expressions, such as being irrational and irritable, as well as feeling dizzy (Tellie et al., 2020). Every healthcare person has felt tired post long shifts, and the same goes for telehealth nurses (Wahlberg & Bjorkman, 2018).

There was also the behavior response theme that was related to the stress and compassion fatigue the study participants encountered. Some nurses ate sugary foods (Ko & Kiser-Larson, 2016) while the registered community health nurses were unable to enjoy and reap the benefits of vacation time since they were struggling to relax (Melvin, 2012). Compassion fatigue manifested in one group with losing the passion for the specialty and nurses and being late to work (Tellie et al., 2020). The telehealth nurses related their tiredness to the fear of making misleading assessments of patients' clinical concerns (Wahlberg & Bjorkman, 2018).

Research Question Three: Measures

The third research question was 'How are stress and burnout measured?'. There were three themes revealed for this integrative review question; no subthemes were identified. The themes focused on the reliable instruments for measurements: scales that measured stress, surveys that measured burnout, and tests that measured compassion fatigue. Two scales focused on stress: the Nursing Stress Scale (NSS) and the Visual Analog Scale (VAS). The NSS measured the levels of stress frequency and stressful factors. Forty oncology nurses' NSS scores were categorized into three levels. The results showed the number of nurses and the level of stress they experienced: no stress or less stress (n=21), moderately stressed (n=18), and highly

stressed (*n*=1) (Ko & Kiser-Larson, 2016). The VAS measured participants' perceived levels of stress. For results, the nurses were encouraged to mark the level of stress (Hand et al., 2019). If there were feelings of little to no stress, the nurse would mark close to the left of the ruler. With greater levels of stress, the nurse would mark on the right side of the ruler. The Impact of Event Scale-Revised (IES-R) measured the respondents' subjective distress. It measured the respondents' personal feelings and opinions of stress related to traumatic events while assessing intrusion, avoidance, and hyperarousal (Potter et al., 2013). The Maslach Burnout Inventory (MBI) – Human Services Survey is a twenty-two-item survey measuring job-related feelings such as emotional exhaustion, depersonalization, and personal accomplishment. The participants' scores throughout the study remained below high risk for burnout. The ProQOL IV is a revised compassion fatigue self-test in which scores were at increased risk levels for stress at the beginning of the study but made a change for less of a risk after the first three and six months as it related to compassion satisfaction, burnout, and secondary trauma.

Research Question Four: Tools and Strategies

The fourth research question was, 'Which tools and strategies have been implemented to alleviate the symptoms related to stress, burnout, and compassion fatigue for nurses who work in the outpatient setting?'. Four of the six articles addressed this question. Two themes and two subthemes were identified.

The first theme was "workplace approach,". The subthemes were "effectively communicate issues" and “support/training”. The theme and subthemes were created based on the information found that discussed the personal choices and coping behaviors for nurses. The literature also mentioned the resources and changes implemented by the workplace in an effort to reduce either or all of stress, burnout, and compassion fatigue. Some nurses sought to do more

work to alleviate stress, while others looked forward to their job's strategies, such as having discussion meetings, having support from physicians (Ko & Kiser-Larson, 2016), and providing space for effective communication with colleagues (Melvin, 2012). The second theme, health behavior, included the physical and social activities created to alleviate or manage stress, burnout, or compassion fatigue. Some coping behaviors expressed by the nurses at the oncology center included exercise and relaxation, while the workplace implemented the yoga class, social outings, and counseling (Ko & Kiser-Larson, 2016). At another cancer center, a mechanical massage chair was placed in a spare room that allowed 20-minute sessions for nurses in an effort to reduce their heart rate and blood pressure. There was a 43.5 percent reduction in perceived stress levels (Hand et al., 2019). Potter et al. (2013) discussed the success of the two five-week compassion fatigue resiliency programs where thirteen ambulatory oncology nurses were present. The program promoted resiliency through self-regulation, such as "relaxation and reducing negative arousal during times of stress…. Nurses wrote their covenant (in their journal) to how they chose to live and work" (p. 182).

Discussion

The aim of this integrative review was to highlight workplace issues ambulatory care nurses experience, specifically related to stress, burnout, and compassion fatigue. This integrative review was to also describe the interventions implemented to alleviate the symptoms related to these phenomena. Outpatient healthcare is a growing specialty. It differs from the inpatient healthcare setting in many ways. Therefore, valid and resourceful data are essential to promote a healthy workplace for ambulatory care nurses. The development of the NSS, VAS, MBI-Human Services Survey, and ProQOL IV acts as tools to aid in data collection and identify challenges nurses may endure while practicing. What may appear to some as simple techniques,

managing workplace stressors and reversing burnout as well as compassion fatigue can be done appropriately if there is adequate nursing support from nursing management and physicians. Ambulatory care nurses also need an opportunity to express their needs and wants as well as to be acknowledged.

There is a plethora of literature published to study workplace stress, burnout, and compassion fatigue that is occurring in hospitals, particularly in bedside, intensive care units, and the emergency department. For example, Galdikiene et al. (2019) discovered that work organizational culture had an effect on nurses' perceived level of stress. In this study, it was also mentioned how the entire team reported their stress of work function depended on the nurses' perceived stress. Another study by Vaclavik et al. (2018) revealed oncology nurses frequently reported how healthcare providers offered a false sense of hope.

There has been little regard to nurses and the challenges within the outpatient healthcare setting. This methodological review attempted to expound on the available literature in an effort to provide insight into the specialty, alone. Altogether, the four integrative review questions were answered, which suggests there are adequate tools and strategies available to begin improving the workplace environment and encouraging nurses to focus on their health and well-being in the outpatient work setting. Of all the six studies, four mentioned the contributions to stress and compassion fatigue, the effects of the phenomena on the ambulatory care nurse as well as the current strategies used to alleviate stress and compassion fatigue (Ko & Kiser-Larson, 2016; Melvin, 2012; Tellie et al., 2020; Wahlberg & Bjorkman, 2018), but there was no discussion of burnout. The MBI- Human Services Survey was the only measurement tool for burnout. It has been concluded that nurses can prosper within their career when practicing in the outpatient setting if the environment allows effective communication, teamwork, and work-life balance.

Limitations

This integrative review thoroughly sought information that focused on the contributions, effects, measuring tools, and interventions implemented to improve stress, burnout, and compassion fatigue nurses experience while practicing in the outpatient healthcare setting. However, nurses are not the only healthcare workers who endure the challenges of working in the ambulatory care setting. Therefore, including the experiences of the workplace interprofessionals and other outpatient disciplines, such as dentistry, could have been valuable to the research findings. Grey literature and articles not published were not included in this integrative review, limiting the number of studies appropriate for inclusion criteria. Additionally, three of the six articles had small sample sizes, with thirteen participants or fewer (Melvin, 2012; Potter et al., 2013; Tellie et al., 2020). There was also a lack of information that implied the participants' sex, male or female, as well as how long the participant worked as a nurse and their years of experience working in the outpatient setting. There were two articles rated as level two with good quality (Hand et al., 2019; Potter et al., 2013), while the other four were rated as level three with good quality (Ko & Kiser-Larson, 2016; Melvin, 2012; Tellie et al., 2020; Walhberg & Bjorkman, 2018). If the researchers successfully found useful data, there could have been a range of quality and level of evidence to improve the generalizability. The researchers discovered none of the articles, individually, could answer the four questions to the integrative review. Only one article addressed burnout (Potter et al., 2013), and the others focused on stress and compassion fatigue. Ultimately, the study's reliability may have been enhanced if both researchers had been available for input at each applicable stage of the integrative review process (e.g., independently screening data to ensure inclusion criteria were met).

Implications for Nursing Practice

Improving the health and well-being of nurses working in ambulatory care is essential to both the patient and the nurse. The findings from this integrative review insinuate there are valuable data available to evolve the issues associated with nurses who are practicing in outpatient healthcare. There is no ethical reasoning behind nurses working themselves until they begin to experience stress, burnout, or compassion fatigue and, not to forget, injuring themselves due to the lack of self-care. This task can be done with the support of leaders and physicians, and by encouraging a work-life balance. As previously mentioned, the discussion has been concluded about caring for nurses in the hospital setting. However, outpatient healthcare is a growing specialty, and nurses are crucial to the advancement of the setting and the patients' quality of care. Healthcare depends on nursing for everything. If nurses have not taken care of themselves physically and mentally, expect patients to be affected.

Conclusion

Stress, burnout, and compassion fatigue will continue to impact the nurses' ability to practice in an ever-growing environment such as ambulatory care services unless healthcare leaders acknowledge and defend their health and well-being. For example, leaders can take the information gathered from the nurses' experiences, surveys, and scales and create new strategies that work for that workplace in particular. As previously mentioned, nurses are nationally leading for the most trusted profession. This title will not remain without support. With the evidence to support this, it appears that nurses can effectively manage the challenges of stress, burnout, and compassion fatigue if tools and strategies are appropriately implemented. This integrative review suggests promoting additional research in this area, and future services are necessary to help reduce these manifestations in the fast-growing nursing specialty.

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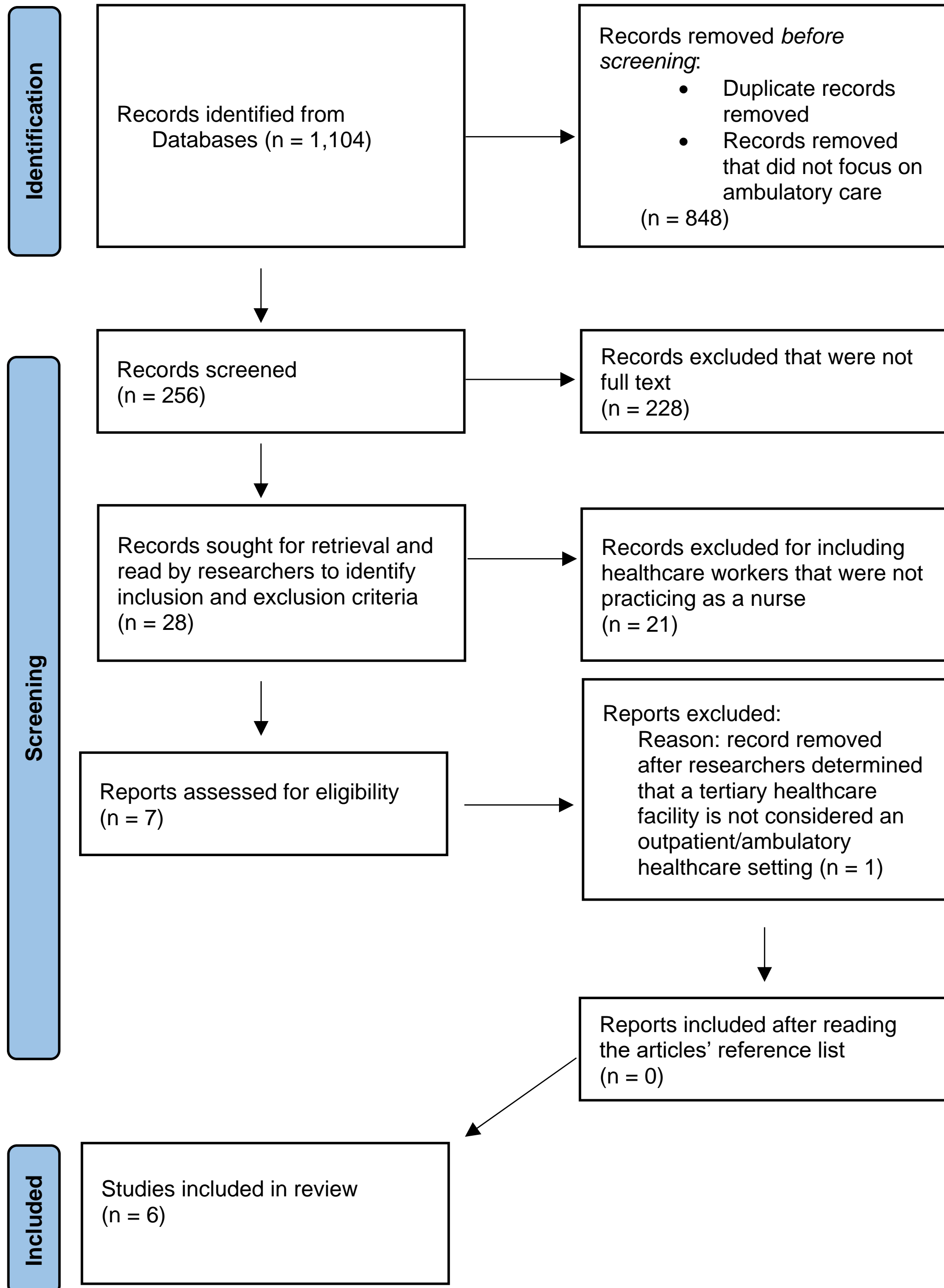
Appendices

Appendix A: PRISMA Flow Diagram

PRISMA 2020 Flow Diagram



Appendix B: Summary of Integrative Review Literature

Matrices

Question 1

What contributes to the stress, burnout, and compassion fatigue ambulatory care nurses experience?						
Author(s)	Year	Study design and level of evidence	Sample size and setting	Study Purpose	Quality Rating	Contributing Factors/Results
Ko & Kiser-Larson	2016	Descriptive, cross-sectional, quantitative, III	40 outpatient oncology nurses (LPNs and RNs combines) from four outpatient units at one cancer center in the U.S.	Identify stress levels and stressful factors of nurses working in oncology outpatient units. Explore coping behaviors for work related stress for outpatient oncology nurses.	Good	18 participants identified as having no stress or less stress. 21 participants were moderately stressed. 1 participant was highly stressed. Stress factors from highest to lowest ranking are: workload; patient death and dying; conflict with physicians; uncertainty with treatment; conflict with other nurses; inadequate preparation; lack of support **(Specific to stress only)**
Melvin	2012	Descriptive, qualitative pilot study, III	6 community home health registered nurses from a home health agency in U.S.; provided hospice and palliative care (dealt with death and dying on continual basis)	Explore the significance of professional compassion fatigue and its effect and coping means for nurses. 1) Nurses dealing with death and dying continuously develop professional	Good	Two themes specific to contributing factors to **professional compassion fatigue** are exposure to repeated death over an extended period of time; providing hospice and palliative care Lots of paperwork (has quadrupled last couple years – does at home after work (3-4

				compassion fatigue. 2)What are physical and emotional consequences?		hours). Recovery piece not happening. Demanding work Getting attached to patients then suddenly, they die/transition
Tellie, Leech, & Wyk	2020	Qualitative study, III	6 registered nurses, 1 enrolled nurse (EN) who work in three outpatient antiretroviral clinics in a tertiary hospital (adults, peds and ante-natal) for HIV+ patients in South Africa. All nurses were trained in HIV care except for the enrolled nurse	Describe the cost of nurses having a relationship with patients with HIV at an ARV outpatient clinic.	Good	Leads to **compassion fatigue**: Being empathetic and getting emotionally involved; being exposed to patient's traumatic experiences events. Traumatized patients associated HIV with death ("Oh I'm going to die; I want to commit suicide") Some did not seek medical help until very ill; knowing that patients didn't want treatment due to the fear of the stigma associated with HIV (suffering from denial and stigmatization). Nurses were frustrated with patients who discontinued care and lied about taken medication as prescribed. Some were none compliant because they did not want their partner to know their HIV status. Infected children (felt heartbroken) or if parent sick, worry about child's future The patient suffering/in pain (nurses were unable to distance themselves).

						Patient death – grief, feeling emotional and sadness Nurses were unable to grieve long; feeling guilt when patient dies because they felt they could do more (intrusive thoughts) inability to disengage because the nurse is preoccupied with patient Feel hopeless; fighting losing battle (e.g., patient refuse to use condoms) High case load and short staffed Unable to maintain professional boundaries – take job home (affects family as well; not feel like being with family; tired)
Wahlberg & Bjorkman	2018	Descriptive, qualitative, III	24 telephone advice nurses (aka tele nurses; all RNs); setting = 6 call centers in Sweden	To describe telehealth nurse's work environment and how it impacts their nursing care	Good	Nurses sometime felt disrespected by HCPs and employer. They felt disrespected when providing care, by care-seekers, management, healthcare staff in other services, and city council policymakers. There is invaluable support from colleagues; high work load and role conflicts. Other HCP had limited knowledge of their work and did not understand the complexity of it contributing to disrespect shown to them. Felt like the

						dumping grounds since all kinds of calls were forwarded to them with limited resources Reported not receiving support needed to perform expert nursing care they were employed to provide; lacking support from managers (e.g., having to take calls that were longer than expected because the nurses had to coordinate care; train new hires Care seekers were sometimes demanding and even unfriendly at times Taking breaks was sometimes difficulty (due to long queues and staff shortage) Sometimes had to handle difficult calls (angry care-seekers or life-threatening health problems) Felt pressure from employer to answer as many calls as possible during a shift; felt they were being monitored Stressful when employer knows what they are doing every second, all the time. Shows up on performance reviews High turnover rates, leading to staff shortage – led to having to

						take more calls and train new colleagues Felt quantity was more important than quality (focus on budget and accessibility, handling as many calls as possible) Feels alone and vulnerable if something goes wrong with an assessment (employer saves their own skin (themselves)) Lack of appreciation from manager Some thought/believed content and structure of support system hindered them sometimes lacked clear instructions from employer Multiple reorganizations (e.g., frequently changing managers) Some lacked regular or enough training Some c/o receiving feedback only when there were complaints Physical work environment had negative impact (e.g., disturbing sounds such as colleagues talking loudly.) Physical work space is a mess and there are only 10 workstations (e.g., too many tele nurses working in same room is exhausting; hard to concentrate

						(move to red; physical work environment); leads to re-work/ do the care seeker assessment over again) Sometimes computer with the records or telephone lines worked improperly (causing stress); also breaks concentration AND insufficient training on new technology after being changed by technicians. (frustrating and stressful) Sometimes received wrong kinds of calls (not fit for telenursing – e.g., mental health & substance use – led to fear of making inadequate assessment and referrals) Cooperation issues across telehealth sites (problems with referrals) Lack of accessibility of other providers – placing responsibility for care-seekers' health problems on the nurse High workload and staffing problems **Related to job-related stress**

Question 2

How does stress, burnout, and compassion fatigue effect the ambulatory care nurse?						
Author(s)	Year	Study design and level of evidence	Sample size and setting	Study Purpose	Quality Rating	Effects of Stress, Burnout, and/or compassion fatigue
Ko & Kiser-Larson	2016	Descriptive, cross-sectional, III	40 outpatient oncology nurses (LPNs and RNs combines) from four outpatient units at one cancer center in the U.S.	Identify stress levels and stressful factors of nurses working in oncology outpatient units. Explore coping behaviors for work related stress for outpatient oncology nurses.	Good	4 oncology nurses had an **emotional response to stress** which were crying, struggling with headaches, feeling uptight and anxious, keeping feelings internal, putting patients first, holding back tears, cynicism. 1 nurse brings stress home and another eats sugary foods.
Melvin	2012	Descriptive, qualitative pilot study, III	6 community home health registered nurses from a home health agency in U.S.; provided hospice and palliative care (dealt with death and dying on continual basis)	Explore the significance of professional compassion fatigue and its effect and coping means for nurses. 1) Nurses dealing with death and dying continuously develop professional compassion fatigue. 2)What are physical and emotional consequences?	Good	Professional **compassion fatigue.** There was a physical and emotional cost of caring: "feeling sole responsibility of patients and worry about them at home at the end of the day". It can eat away at you – multiple losses. Not able to fully relax or recover during vacations, now only feeling a quarter full – struggling mentally and physically ("feel heavy on the shoulders") It can be physically and emotionally exhausting which compounds synergistically in a negative way

						May find self-teary or angry at somebody (due to demanding work and exhaustion)
Tellie, Leech, & Wyk	2020	Qualitative study, case-study design, III	6 registered nurses, 1 enrolled nurse (EN) who work in three outpatient antiretroviral clinics in a tertiary hospital (adults, peds and ante-natal) for HIV+ patients in South Africa. All nurses were trained in HIV care except for the enrolled nurse	Describe the cost of nurses having a relationship with patients with HIV at an ARV outpatient clinic.	Good	Manifestations of **compassion fatigue:** physical energy levels were depleted (very tired; emotionally drained). Psychologically, nurses were irrational, irritable, angry, and depressed. Nurses were feeling numb and no longer cared Dizziness Losing passion= compassion fatigue Tardiness (to work) Some not care for themselves anymore (in the way they dress; hairstyle)
Wahlberg & Bjorkman	2018	Descriptive, qualitative, III	24 telephone advice nurses (aka tele nurses; all RNs); setting = 6 call centers in Sweden	To describe telehealth nurse's work environment and how it impacts their nursing care	Good	Some aspects of their work environment prevented them from being the experts they felt they truly were Sometimes felt disrespected (by HCPs and employers) Felt like dumping grounds: (all kinds of calls were referred to them and they had to deal with the general lack of accessibility of healthcare resources Felt tired when worked long shifts (especially when queuers were long, thus limited recovery time. Tiredness could lead to

						cognitive impairment and fear of making erroneous assessments of care-seekers' health problems; this impacted their interest in the care seeker (you need time and energy to provide good nursing care) Felt had limited opportunities to develop their skills and knowledge Experienced lack of career opportunities at their workplace broke concentration and increased risk of mistakes (e.g., erroneous assessment) **Related to job-related stress**

Question 3

How are stress and burnout measured?						
Author(s)	Year	Study design and level of evidence	Sample size and setting	Study Purpose	Quality	Measurements
Hand, Margolis, & Staffileno	2019	Pre-/post -test design, II	100 nurses (RNs and Advanced Practice Providers) in one U.S. ambulatory care cancer center (200 chair sessions by 51 nurses)	Determine the effects of massage chair sessions for nurses in ambulatory cancer centers. Assess perceived level of stress, HR and BP after mechanical chair message	Good	**Visual analog scale (VAS)** measures perceived levels of stress in healthcare workers. It is a 10 mm horizontal line (visual ruler); (scale of 0 to 10). One the left is 0 meaning no stress and a 10 on the right as unbearable stress
Ko & Kiser-Larson	2016	Descriptive, cross-sectional, III	40 outpatient oncology nurses (LPNs and RNs combines) from four outpatient units at one cancer center in the U.S.	Identify stress levels and stressful factors of nurses working in oncology outpatient units. Explore coping behaviors for work related stress for outpatient oncology nurses.	Good	Nursing Stress Scale (NSS)measures **levels of stress** frequency and stressful factors. The NSS divided into 7 subscales: patient death and dying; conflict with physicians; inadequate preparation; conflict with other nurses; workload; uncertainty concerning treatment.
Potter, Deshields, Berger, Clarke, Olsen & Cheng	2013	Descriptive pilot study, II	13 outpatient oncology nurses (RNs) who worked in one of the outpatient infusion centers as part of a	Evaluate nurse resiliency program designed for oncology nurses regarding compassion fatigue	Good	**Maslach Burnout Inventory (MBI)-Human Services Survey**: 22 item survey that measures job-related feelings separated into three categories of burnout: emotional exhaustion, depersonalization,

			NCI Cancer Center in the U.S.			and lack of personal accomplishment. **ProQOL IV:** revision of the Compassion Fatigue Self-Test: addresses the separation of burnout and secondary trauma. It measures compassion satisfaction, secondary traumatic stress, and burnout**.** The **Impact of Event Scale-Revised** measures a respondent's subjective distress caused by a traumatic experience. Nursing Job Satisfaction Scale (measures enjoyment (N/A))

Question 4

Which tools and strategies have been implemented to alleviate the symptoms related to stress, burnout, and compassion fatigue for nurses who work in the outpatient setting?						
Author(s)	Year	Study design and level of evidence	Sample size and setting	Study Purpose	Quality	Tools and Strategies
Hand, Margolis, & Staffileno	2019	Pre-/post-test design, II	100 nurses (RNs and Advanced Practice Providers) in one U.S. ambulatory care cancer center (200 chair sessions by 51 nurses)	Determine the effects of massage chair sessions for nurses in ambulatory cancer centers. Assess perceived level of stress, HR and BP after mechanical chair message	Good	Mechanical Massage chair sessions (up to 20 minutes each session) – scheduled vs. spontaneous
Ko & Kiser-Larson	2016	Descriptive, cross-sectional study, III	40 outpatient oncology nurses (LPNs and RNs combines) from four outpatient units at one cancer center in the U.S.	Identify stress levels and stressful factors of nurses working in oncology outpatient units. Explore coping behaviors for work related stress for outpatient oncology nurses.	Good	1.How would you describe your coping behavior to manage work-related stress? **Verbalization; exercise and relaxation; taking time for self; separation of work and home life; doing work** 2.What resources has your workplace made available to help manage work-related stress? **Spiritual resources; administrative resources; discussion meetings; yoga class; counseling; social outing; more task to help ease stress.** 3.What would help you to improve your management of work-related stress? **More**

						staffing; management support; breaks; more meetings; support from physicians; support from nurses; social outing; better skills
Melvin	2012	Descriptive, qualitative pilot study, III	6 community home health registered nurses from a home health agency in U.S.; provided hospice and palliative care (dealt with death and dying on continual basis)	Explore the significance of professional compassion fatigue and its effect and coping means for nurses. 1) Nurses dealing with death and dying continuously develop professional compassion fatigue. 2)What are physical and emotional consequences?	Good	Supportive supervisors and partners; talking with colleagues; reflection; physical health/regular exercise setting professional boundaries to maintain ability to work end-of-life care and to maintain a personal-professional balance (helps preserve them from burnout) Other personal strategies reported for coping with PCF: adequate sleep, good nutrition, regular exercise, and relaxation
Potter, Deshields, Berger, Clarke, Olsen, & Chen	2013	Descriptive pilot study, II	13 outpatient oncology nurses (RNs) who worked in one of the outpatient infusion centers as part of a NCI Cancer Center in the U.S.	Evaluate nurse resiliency program designed for oncology nurses regarding compassion fatigue	Good	Two 5-week compassion fatigue resiliency programs – consisted of: Promote resiliency through self-regulation such as relaxation and reducing negative arousal during times of stress. Nurses wrote their covenant (in journal) to how they chose to live and work; social support; self-care

						interventions to refuel and restore one's energy and passion for professional caregiving.

Appendix C

Table 1

An Illustration of the Themes and Subthemes for Each Integrative Review Question

Author(s) and Year	Focus of Research Question	Themes	Sub-Themes
Ko & Kiser-Larson, 2016; Melvin, 2012; Tellie et al., 2020; Wahlberg & Bjorkman, 2018	#1 – Contributing Factors	Workload/Staffing Issues	None
		Patient Experiences, Traumas, and Transition Phase	None
		Interprofessional Relationships	None
		Organizational Issues	Preparedness/Readiness
			Resources
			Physical Work Environment
		Nurses' Experience	Thoughts and Feelings
			Rest and Recuperation
Ko & Kiser-Larson, 2016; Melvin, 2012; Tellie et al., 2020; Wahlberg & Bjorkman, 2018	#2 – The Effects	Emotional and Physical Response	None
		Behavior Response	None
Hand et al., 2019;	#3 – Measures	Scales that Measured Stress	None

Ko & Kiser-Larson, 2016; Potter et al., 2013			
		Surveys that Measured Burnout	None
		Tests that Measured Compassion Fatigue	None
Hand et al., 2019; Ko & Kiser-Larson, 2016; Melvin, 2012; Potter et al., 2013	#4 – Tools and Strategies	Workplace Approach	Effectively Communicate Issues
			Support/Training
		Health Behaviors	None