SHEDDING LIGHT ON NEW FACTORS RELATED TO BURNOUT AMONG NURSES: A MIXED-METHODS STUDY

By

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ABSTRACT

Background: Burnout is characterized by profound physical, emotional, and mental exhaustion that is common among nurses. Discrimination and Sexual Harassment may cause burnout, but existing scales do not address this, which can limit understanding and contribute to inequities. More research is needed to determine how discrimination and Sexual Harassment may cause burnout.

Methods: I used a novel data source: the 'Nursing' subreddit on Reddit in this study. I used mixed methods approach to analyze the results. Keywords were defined and I developed a Python script for automatic extraction of posts. I used BERTopic model analysis, a Machine Learning Technique, for data analysis. As part of this study, I analyzed a total of 770 posts.

Results: The analysis reveals that nurses of different race, ethnicity, gender, age, and religion often face unexpected and uncomfortable interactions with patients, patient's family, and co-workers. For instance, a nurse shared an experience where a patient not only made remarks about the nurse's race but also refused care from the nurse based on racial bias. The analysis also reveals that nurses, irrespective of gender, face sexual harassment both physical and verbal from patients, patient's family, and co-workers. For instance, a nurse mentioned in one of the posts how sexual remarks from a patient made them uncomfortable and made all subsequent interactions difficult. In both cases, nurses described how these encounters left them feeling emotionally exhausted, leading to burnout.

Discussion: The data reveals that discrimination of any type, sexual harassment, and burnout are not separate individual conditions but are interconnected. This study suggests that discrimination and sexual harassment are not different from burnout but can instead act as triggers for it. Unfortunately, none of the existing burnout measuring scales include these two critical factors identified in this study. Therefore, I believe there is a need to update the current burnout scales to address health inequities withing the nursing workforce.

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INTRODUCTION

Burnout denotes a condition characterized by profound mental, physical, and emotional depletion. Coined in the 1970s by the American psychologist Herbert Freudenberger, the term was employed to delineate the repercussions of acute stress and elevated ideals within healthcare professionals like physicians and nurses *(Institute for Quality and Efficiency in Health Care (IQWiG), 2020)*.

Burnout occurs mainly in healthcare professionals as these are helping professions. It particularly often concerns nurses, because their professional work is associated with stress, showing understanding, compassion, and commitment, with the simultaneous need to maintain the necessary emotional distance (Pérez et al., 2022; De Oliveira et al., 2019).

A recent report by Flynn (2023) summarizes the prevalence of burnout among nurses based on surveys administered July 2021 and from January to December 2022. 95% of nurses have reported feeling burnt out within the three years prior to the survey. Only 15.6% of nurses felt burnt out in 2019, but since the start of the COVID-19 pandemic, that number has risen to 62%. Up to 30% of all US nurses quit their jobs in 2021 and 27% of them who quit have cited burnout as their main reason for doing so. As of 2023, the current annual turnover rate for nurses is 27.1% (Flynn, 2023).

While burnout is common among nurses, it is particularly common among certain nurses. Results from a 2020 national survey conducted by American Nurses Association, shows that almost two-thirds of nurses (62%) experience burnout (AHA News, 2020). It's especially common among younger nurses, with 69% of nurses under 25 reporting burnout. This issue affects all hospitals and health care systems in the U.S (ANA, 2023; COVID-19 Impact Assessment Survey - the Second Year, 2022).

As we all witnessed and know, the COVID-19 pandemic has changed all the existing equations. It has been particularly tough for healthcare professionals. This is why the findings

of the second year COVID-19 Impact Assessment Survey, conducted between Jan 8th – Jan 29th of 2022, indicate that a substantial portion of the participants (nurses) experienced burnout, with 49% reporting such feelings just two weeks prior to the survey. Among this group, 70% of younger nurses (those aged less than 25) selected the option "burnout" to describe their current state or feelings (COVID-19 Impact Assessment Survey - the Second Year, 2022). This data highlights a concerning trend of burnout, especially among younger healthcare professionals, which can have serious implications for their well-being and the quality of care they can provide.

As we have seen statistics from various sources mentioning burnout in nurses, it is evident that there is a need for intervention in this area. Despite the existence of numerous interventions (Marine et al., 2006; Bagheri, 2019; Xie et al., 2011; Nowrouzi et al., 2015; M. R. Lee & Cha, 2023; Aryankhesal, 2019; H. F. Lee et al., 2016; Selič et al., 2023; Ramachandran et al., 2022; Pratt et al., 2023; Tjasink et al., 2023; Cohen et al., 2023), the issue persists, indicating that the current interventions may be lacking. The long-term goal is to develop an intervention for nurses who suffer from burnout. In order to develop a new intervention to address burnout, it is necessary to understand these interventions and the gaps they have.

It is imperative to address nurse burnout at the individual level due to the profound impact it has on patient care. When a nurse experiences burnout, the repercussions ripple through their ability to provide high-quality care to their patients. Equally significant is the need to tackle burnout at the structural level, focusing on the organizational aspects that contribute to its development. Healthcare organizations play a substantial role in precipitating nurse burnout. Factors such as understaffing, an inhospitable work environment, irregular and extended working hours, and overwhelming workloads take a heavy toll on nurses, both physically and emotionally. To mitigate these challenges and provide a supportive, conducive

environment for nurses, structural interventions must be implemented within healthcare organizations. This will not only safeguard the well-being of nurses but also foster a healthcare system where patients receive the high-quality care they deserve (Jun et al., 2021; Orrù et al., 2021; Galanis et al., 2021).

Interventions and their drawbacks

Literature (Xie et al., 2011) suggests that interventions at the individual level may have better effects than those at a workplace level. Workplace interventions are difficult to implement as they are administrative, financial, and personnel initiatives that institutions are often unable to achieve; These interventions include assigning less number of patients to each nurse, having more nurses to avoid issues with understaffing, to give the flexibility to nurses to have breathable time in between while treating different patients. Accordingly, I will focus my discussion on individual-level interventions.

According to Bagheri (2019) teaching stress-coping strategies and group cognitive-behavioural therapy to nurses can significantly decrease burnout, particularly in the subscales of depersonalization and individual performance of MBI scale. The study also found that the effectiveness of the intervention can be maintained over time, with a significant difference in results before and after the intervention even after a month. However, the emotional fatigue subscale did not show a significant decrease. The stress-coping strategies were taught using group discussion, whiteboard, Power Point, and role model. In the group cognitive-behavioural therapy, the intervention group participates in 10 group cognitive therapy sessions of 1.5 to 2 hours, once a week for 2 and a half months. The therapy sessions were based on a cognitive approach and focused on identifying and challenging negative thoughts and beliefs, as well as developing problem-solving skills. A group cognitive therapy book was used to educate the participants, and the researcher developed the protocol for each group psychotherapy session based on this book (Bagheri, 2019).

The drawbacks of Cognitive Behavioural Group Therapy is it is a group activity. It requires a specific commitment of time from everyone, which may or may not be feasible at all times. This therapy typically necessitates a group of 5-10 people for at least 1.5 to 2 hours per day in general (Choosing Therapy, 2023). The time frame changes depending on the intensity at which the group needs this therapy (Choosing Therapy, 2023). The stress coping techniques encompasses four key actions, which are Avoid, Alter, Accept, and Adapt. Nurses can't always avoid or alter situations, and while acceptance may help with some stressors, it may not be suitable for chronic nurse burnout. Accepting burnout as inevitable can harm nurses' health. While nurses are adaptable, sustained adaptation to high-stress environments can lead to chronic burnout, causing physical and emotional exhaustion. Continuous adaptation may not be a sustainable long-term solution.

Mindfulness-based stress reduction is more widely suggested and followed intervention (Nowrouzi et al., 2015; M. R. Lee & Cha, 2023; Aryankhesal, 2019; H. F. Lee et al., 2016). These are a specific form of intervention that are essential in facilitating healthy nursing practices. Mindfulness interventions focus on elements of mindfulness (Selič et al., 2023), facilitated by trained instructors, in groups or as individuals, either at home or in a facility, following a structured schedule with audio-visual materials, or self-directed with manuals or online resources. The mindfulness means meditation. This will have different modes like walking noticing breath, temperature of air, sights and sounds of surroundings, sitting, mindful eating that include noticing smell, taste, texture, and flavour of food and etc (Harper, 2023). It is assumed that 8–12-week mindfulness-based programs are the exclusive way to deliver mindfulness training (Creswell, 2017). According to Marine (2006), any intervention would take 6-24 months to reflect the positive effects of it.

The drawbacks of mindfulness include it is time consuming, people have varying preferences for coping strategies, and mindfulness may not resonate with everyone.

Mindfulness practices have cultural roots, and their effectiveness may vary based on cultural backgrounds. Mindfulness practices can initially bring up uncomfortable thoughts or emotions, especially for individuals dealing with burnout. This initial discomfort may discourage some from continuing with the practice. Learning and practicing mindfulness effectively often require proper guidance. In the absence of skilled instructors or appropriate resources, individuals may not fully grasp the techniques or experience the desired benefits.

Another form of intervention to avoid burnout is art therapy-based interventions for healthcare workers. These interventions involve various forms of creative arts therapy, such as art making on a theme or with specific directives, sharing or reflective discussion, visual journaling, goal setting, and participants being given art materials to use at home in their own time. The interventions were most commonly provided in group format, with the most frequent group size consisting of 2 to 8 members. Single sessions and short blocks of 2-4 sessions made up the majority of interventions. More than half of interventions included non-art therapy-specific elements such as mindfulness or relaxation exercises, creative or reflective writing, and psychoeducation (Tjasink et al., 2023).

The drawbacks of art therapy-based interventions for addressing burnout include the subjective nature of artistic interpretation, making it challenging to measure therapeutic outcomes. Some individuals may feel uncomfortable or resistant to artistic expression, finding the process intimidating and potentially leading to increased stress. The need for additional time, resources, and dedicated space for art therapy sessions can pose challenges, particularly in a hospital setup. The lack of standardized protocols and guidelines in the field may impact the consistency and replicability of outcomes. Moreover, limited accessibility, influenced by factors like geographical location, financial constraints, and the availability of qualified art therapists, may hinder the widespread adoption of art therapy as a burnout intervention.

An additional approach for managing burnout involves periodically stepping away from work to engage in activities such as watching, reading, or listening to something. This is particularly difficult for nurses who put in extra hours for due to overtime or understaffing roles (Miguel-Puga et al., 2020; Jun et al., 2021; Buckley et al., 2020). These activities are, however, time-consuming and require some dedicated moments for nurses to rejuvenate and reflect positively.

All the above-mentioned interventions require nurses to invest their time in one way or another daily, and it takes time to observe their positive effects. Thus far, there are no in-time interventions available. For instance, when a nurse encounters an issue and is stressed about something, there are no immediate interventions or methods that can assist them quickly and consume relatively less time.

We have identified these drawbacks of existing interventions, this would help me in making a new in-time intervention. To do this, we also need to understand how burnout is measured and consider all the factors that these scales consider. Therefore, as part of this study, I are examining different prominently used scales to measure burnout. Building on our initial understanding of different interventions and scales, I analysed posts from Reddit, which served as the data set for this study.

Today, there are many globally accepted burnout measuring scales in practice. However, these scales fail to identify two main crucial factors, discrimination based on race, ethnicity, age, gender, and religion, and sexual harassment (both verbal and physical). This study aims to highlight this gap in the current scales and emphasize the importance of including discrimination and sexual harassment as factors in burnout measuring scales. Before addressing this gap, the following sections will provide a detailed insights on what burnout is, its causes and its consequences.

WHAT IS BURNOUT?

As mentioned earlier to come up with the intervention for burnout in nurses, it is necessary to know about how burnout is scientifically defined in the literature. Burnout is defined as a state of emotional, physical, and mental exhaustion caused by both acute and chronic stress (Jun et al., 2021).

Christina Maslach, a researcher, played a pioneering role in investigating the definition, prediction, and measurement of burnout among working professionals. Her contributions have marked her as a trailblazer in the field of burnout research. Her early work in the 1970s helped define and shape the concept of burnout, bringing attention to the emotional and psychological impact of chronic workplace stress. Maslach's research has identified various individual and organizational risk factors that contribute to burnout. This includes factors such as high workload, lack of control, insufficient rewards, and interpersonal conflicts. Understanding these risk factors is crucial for developing interventions to prevent and address burnout. She developed the most prominently used scale – Maslach Burnout Inventory scale which is used to measure burnout.

According to Christina Maslach (Maslach & Jackson, 1981; Maslach & Leiter, 2016; Adriaenssens et al., 2013), burnout is the body's reaction to prolonged stress. It can be described as a psychological syndrome characterized by three main components: emotional exhaustion, depersonalization, and a diminished sense of personal accomplishment. Emotional exhaustion refers to a person's overall mental and emotional well-being. It indicates that the individual has become overwhelmed and emotionally depleted due to the prolonged stress they've experienced. Depersonalization refers to responding negatively or becoming overly indifferent to the people who are usually the recipients of the person's services or the subjects of their care. It involves a sense of detachment or disengagement from those they are supposed to be helping. A reduced sense of personal achievement refers

to decline in an individual's self-assessment of their competence and their ability to achieve success in their work. It often manifests as a reduced belief in their own capabilities.

Since Maslach's work, much research has documented how burnout appears. The presentation and manifestation of burnout symptoms can vary among individuals, reflecting the complex and multifaceted nature of this condition. While the specific signs may differ, some common indicators align with Maslach's early work and include emotional exhaustion, depersonalization, reduced personal accomplishment, and a range of emotional and physical disturbances (Jun et al., 2021; Buckley et al., 2020; Orrù et al., 2021). The physical symptoms of burnout are headaches, stomach aches, fatigue, frequent illnesses, changes in appetite, gastrointestinal problems and sleep patterns (Buckley et al., 2020; Khatatbeh et al., 2021). Emotional symptoms include feelings of helplessness, cynicism, a sense of failure or self-doubt, reduced satisfaction, a sense of detachment or loneliness, decline in motivation, and a lack of empathy towards patients may become apparent, further contributing to the complex picture of burnout (Jun et al., 2021; Orrù et al., 2021). Behavioural signs of burnout include reduced performance in everyday tasks, withdrawal or isolation, procrastination, outbursts, and using substances to cope (Buckley et al., 2020).

In-order to facilitate the positive development of an individual's well-being, it is important to identify the various manifestations of burnout and its nuanced symptoms before they significantly impact the individual. A demanding lifestyle can subject individuals to heightened stress, leading to feelings of profound exhaustion, emptiness, an inability to cope, and an incapacity to revert to a normal emotional state. Recognizing that burnout is a complex phenomenon, with its symptoms manifesting uniquely in each person, influenced by personal attributes, the nature of their work, and the degree of burnout experienced. The timely recognition and intervention of burnout are indispensable, serving to mitigate its adverse effects on both the individual's well-being and the overall functioning of the

workplace. Early identification enables a proactive approach, allowing for targeted interventions that address the root causes and contribute to the preservation of mental and emotional health in individuals. Furthermore, such interventions have the potential to enhance overall workplace productivity and create a conducive environment for sustained positive well-being.

HOW IS BURNOUT MEASURED?

The different scales used to measure burnout contribute additional insights into how it presents itself. Besides the MBI scale, other scales commonly used are the Work-Related Quality of Life Scale (WR-QOLS), Copenhagen Burnout Inventory (CBI), Connor-Davidson Resilience Scale (CDRS), Disturbance Due to Hospital Noise Scale, and the Nursing Stress Scale (NSS), and Pieta Nurse Role Conception (PNRC) tool.

The Maslach Burnout Inventory scale (Maslach & Jackson, 1981; Maslach & Leiter, 2016; Adriaenssens et al., 2013), consists of a series of questions or statements that individuals respond to, typically on a scale, to assess their levels of burnout. Questions like 'I feel emotionally drained by my work', 'Working with people all day long required a great deal of effort', 'I feel like my work is breaking me down', 'I feel frustrated by my work', 'I feel I work too hard at my job', 'It stresses me too much to work in direct contact with people', and 'I feel like I'm at the end of my rope' are used to measure burnout in any professional worker.

The Work-Related Quality of Life Scale (Khatatbeh et al., 2021; Casida et al., 2018), a 23-item questionnaire that assesses six facets of Quality of Work Life, encompassing job and career satisfaction, general well-being, home-work interface, stress at work, control at work, and working conditions. This scale has questions like 'I often feel under pressure at work' and 'I often feel excessive levels of stress at work' to understand nurses stress at work. Questions like 'I feel able to voice opinions and influence changes in my area of work', 'I am involved in decisions that affect me in my own area of work', and 'I am involved in decisions that affect members of the public in my own area of work' assess the subscale control at work. Questions like 'My employer provides me with what I need to do my job effectively', 'I work in a safe environment', and 'The working conditions are satisfactory' assess the subscale working conditions.

The Copenhagen Burnout Inventory (Khatatbeh et al., 2021; Casida et al., 2018; Buckley et al., 2020), a 19-item questionnaire is used to evaluate burnout across personal, work-related, and client-related contexts, with its three distinct subscales: PB (prolonged physical and psychological exhaustion), WB (prolonged exhaustion in relation to one's work), and CB (prolonged exhaustion related to one's work with clients), as outlined by Casida et al. (2018). This scale has questions like ‘Is your work emotionally exhausting?’, ‘Do you feel burntout because of your work?’, ‘Does your work frustrate you?’, ‘Do you feel wornout at the end of the working day?’, ‘Are you exhausted in the morning at the thought of another day at work?’, ‘Do you feel that every working hour is tiring for you?’, and ‘Do you have enough energy for family and friends during leisure time?’ to measure work-related burnout. Questions like ‘Do you find it hard to work with clients?’, ‘Do you find it frustrating to work with clients?’, ‘Does it drain your energy to work with clients?’, ‘Do you feel that you give more than you get back when you work with clients?’, ‘Are you tired of working with clients?’, and ‘Do you sometimes wonder how long you will be able to continue working with clients?’ are used to measure client-related burnout.

The Connor-Davidson Resilience Scale (CDRS) is a questionnaire with 25 items, with five subscales assessing personal competence, tolerance of negative effects and resilience against stress, positive acceptance of change, self-control, and spiritual influences (Elias et al., 2020). This scale has questions like ‘I am able to adapt when changes occur’, ’I tend to bounce back after illness or hardship’, ‘I can handle unpleasant feelings’, ‘I can deal with whatever comes my way’, ‘I see the humorous side of things’.

In a study (Duquette et al., 1994) reviewing factors related to nursing burnout along with existing scale Maslach Burnout Inventory few additional questions were asked such as "What organizational stressors contribute to nursing burnout?" and "What sociodemographic factors are linked to nursing burnout?" Additionally, investigations explored factors that serve

as buffers against nursing burnout. Various other scales, including the SBS-HP, the Disturbance Due to Hospital Noise Scale, and the Nursing Stress Scale (NSS), were employed to appraise the mental state of nurses. Questions like ‘If something or someone really annoys me I will bottle up my feelings’, ‘I am unable to perform tasks as well as I used to, my judgement is clouded or not as good as it was’, ‘I frequently bring work home at night’, ‘I couldn't seem to experience any positive feeling at all’, ‘I felt I was close to panic’ are included in NSS.

Several key conclusions can be drawn from this inventory of scales. First, despite the various scales, there appears to be agreement with Maslach that burnout is characterized by physical, emotional, and behavioural symptoms reflecting exhaustion. Second, sources of burnout appear to be workload and other organizational factors along with interpersonal conflict. Another key conclusion relates to the limitations regarding the content of the scales. Specifically, none of the scales capture an important source of burnout that appeared in the analysis: discrimination. It is possible that existing scales are measuring burnout caused by discrimination, but they are not targeting this as a standalone factor. For instance, in the CBI scale, the answer to the question ‘Do you find it hard to work with clients?’ will be answered yes by any nurse who has faced discrimination. However, the scale fails to identify the exact reason why the nurse has answered yes. Therefore, we take that no research has checked to measure burnout that is caused by discrimination directly. This new factor appeared in our analysis. According to Zauderer (2023), 11.4% of the nurses are Black or African American. It is crucial to study and understand the phenomenon of burnout in relation to race because it highlights systemic disparities and inequalities that affect the well-being of individuals from diverse racial backgrounds. By examining the unique stressors and challenges faced by different groups facing discrimination we can work towards addressing and rectifying these issues. Additionally, recognizing the impact of discrimination on burnout allows us to

implement more inclusive and equitable support systems and interventions to promote mental health and overall resilience, ultimately fostering a more just and inclusive society.

WHAT CAUSES BURNOUT?

In addition to the evident challenges of tending to patients, enduring extended shifts, and concerns for their own safety, nurses also grapple with occupational stress stemming from various sources, including deficiencies in skills, organizational issues, and insufficient social support within the workplace. These stressors can culminate in emotional distress, burnout, and even physical manifestations of stress-related ailments. The collective impact of these stressors not only affects the well-being of the nurses themselves but also exerts a tangible toll on both the quality of their personal lives and the quality of care they are able to provide (Sasidharan & Dhillon, 2021; Ruotsalainen et al., 2015). Burnout among nurses is a complex and multifactorial issue and can be broadly classified into two categories, individual level and organisational factors, each with distinct implications for nursing professionals.

According to the literature (Miguel-Puga et al., 2020; Jun et al., 2021; Buckley et al., 2020), Individual factors classify as factors that are directly related to the individual's social interaction with their surroundings. Individual factors are further classified into two, work related and personal factors. Work related factors include extended work hours, irregular work hours, frequent changes in the shifts, on-call duties, negative interactions with patients, families, co-workers, supervisors, and managers. Nurses often find themselves burdened with an excessive number of responsibilities, pushing the boundaries of what is realistically achievable within their roles. Personal factors such as age, gender, and marital status also intersect with burnout. Gender disparities can lead to inequalities in pay and opportunities, potentially causing female nurses to experience higher levels of burnout due to gender stereotypes. Marital status, while the subject of conflicting research findings, can influence burnout levels in various ways (Khatatbeh et al., 2021; Galanis et al., 2021; Nantsupawat et al., 2015).

Existing literature (Miguel-Puga et al., 2020; Jun et al., 2021; Buckley et al., 2020; Khatatbeh et al., 2021; Galanis et al., 2021; Nantsupawat et al., 2015) suggests that organisational level factors are factors that are directly related to the workplace's administrative and financial disposition. Understaffing and miscommunication between the management often attributes to administrative level issues. On the other hand, low salaries often attributed to funding issues, result in nurses being undercompensated relative to their skills and dedication. The lack of support from colleagues and supervisors, combined with negative interactions among co-workers and with supervisors, further exacerbates the issue, leaving nurses without the necessary professional support when needed. Additionally, inadequate training and a shortage of essential resources hinder nurses' ability to provide quality patient care effectively.

Burnout caused by discrimination is a new factor I identified from the analysis that needs to be addressed at both individual and organisational level. From our initial findings, I found that discrimination is one of the factors causing burnout, and none of the scales directly address this factor. Therefore, we don't know at what level we need to answer in order to come up with an intervention for burnout among nurses. As this is a new factor, it is still not known how this would affect someone at both the individual and organizational levels.

WHAT BURNOUT CAUSES?

It is important to broaden our understanding of different sources of burnout, like discrimination, because of its negative impact on healthcare delivery. Addressing burnout is not only essential for the health and satisfaction of nurses but also pivotal for maintaining the integrity of the healthcare system as a whole. The consequences of burnout extend to numerous other facets of healthcare, casting a shadow over the well-being of nurses, the quality of care they provide, and the operational efficiency of healthcare organizations. Individuals grappling with burnout may struggle to maintain job satisfaction and productivity, often experiencing increased criticism and blame, which erode their emotional well-being (Galanis et al., 2021).

Burnout effects the well-being of nurses and the quality of care they provide to patients. Burnout among nurses carries profound consequences that extend far beyond the individuals experiencing it, resonating within the realm of patient care and the healthcare organization itself. A nurse's loyalty and attachment to their healthcare institution are compromised by burnout. Burnout jeopardizes the quality and safety of care provided by nurses (Jun et al., 2021; Buckley et al., 2020). Diminished dedication leads to subpar healthcare services, resulting in patients not receiving appropriate treatments, enduring care delays, and failing to have their unique needs met. This suboptimal care can manifest in errors, accidents, and adverse events during treatment, posing a risk to patient safety and well-being (Buckley et al., 2020; Khatatbeh et al., 2021). The degree of nurse commitment is integral to patient outcomes, resource allocation, and overall care quality (Miguel-Puga et al., 2020; Jun et al., 2021; Buckley et al., 2020; Khatatbeh et al., 2021; Galanis et al., 2021; Nantsupawat et al., 2015). The reduced dedication hampers nurse productivity and, in turn, the efficiency and effectiveness with which patient care is delivered.

Operational efficiency of healthcare organisations is often affected by lower productivity which contributes to care delays, prolonged hospital stays, and heightened stress

levels for both nurses and patients. Diminished or lower productivity is caused due to the factors like absence of nurses, presence of ill nurses, heavy workloads, inadequate staffing levels, administrative burdens, and complex patient cases, resulting in delayed care, protracted hospital stays, and increased stress levels for both nurses and patients (Buckley et al., 2020; Khatatbeh et al., 2021). These potential results increase the likelihood of medical errors. High turnover rates among nurses are common, driven by job dissatisfaction and inadequate support, disrupting team cohesion, undermining care continuity, and placing added stress on the remaining staff. The exodus of experienced nurses due to turnover burdens healthcare organizations and leads to a decline in morale and a palpable sense of instability (Miguel-Puga et al., 2020; Jun et al., 2021; Buckley et al., 2020; Galanis et al., 2021; Nantsupawat et al., 2015).

METHODS

Data Source and Data Collection

I utilized Reddit, a widely used social media platform, to collect user-generated content related to the nursing profession. On Reddit, users publicly share detailed personal narratives across a variety of topics, organizing these discussions into specific communities called subreddits. For this study, I focused on the 'nursing' subreddit, where nurses actively engage in conversations about their professional and personal experiences.

Since the mental health condition I planned to study in this research is burnout, I used it as the first search term. It generated a few posts, and I began the analysis with the first post that appeared on the results screen from the nursing subreddit. I analysed the post and tried to understand what the user was expressing from different perspectives, assigning it three to four relevant name tags. These name tags are called keywords or search terms. I then used these new keywords to search the nursing subreddit to see if they would pull up any posts and, if so, what kind of posts they would retrieve. To my surprise, they pulled up relevant posts.

I then analysed the first few posts to determine if there was enough content to support my research hypothesis and this analysis provided some valid insights with respect to this study. Furthermore, to guide the data extraction, I reviewed several established burnout scales, identifying key terms and phrases commonly associated with burnout symptoms. For example, the Copenhagen Burnout Inventory (CBI) frequently uses different forms of the word 'frustration,' making it one of the main keywords. A python script was then developed, including the initial keywords identified, and this script automatically extracted additional posts from the subreddit.

Initially, I manually analysed a few posts to make sure data extraction has extracted relevant posts, and afterward, they were thematically analysed using MAXQDA to identify the common themes and keywords relevant to this study. To guide the data extraction, I reviewed

several established burnout scales, identifying key terms and phrases commonly associated with burnout symptoms. For example, the Copenhagen Burnout Inventory (CBI) frequently uses different forms of the word 'frustration,' making it one of the central search terms. A python script was then developed, including the initial keywords identified, and this script automatically extracted additional posts from the subreddit.

Reddit data dumps from 2005 June to December 2023 is available in two different formats, one where data from all subreddits is arranged in monthly files, and another where each subreddit has its own file. The entire the Reddit data dump is 2.6TB. I used the October 2023 monthly file for the first round of automated data extraction and extracted posts of 659. Of these, 78 were from Nursing subreddit, and these posts were filtered and compiled into a new file. Using MAXQDA, I conducted thematic analysis of the data and generated an additional list of keywords. These new keywords, along with the earlier list, were used to re-extract posts from the same October 2023 data file. This time, 879 posts were extracted, with 99 from the Nursing subreddit. I repeated this process, each time adding new keywords to the list. Using this approach, I compiled a comprehensive list of keywords, including terms related to disrespect, harassment, discrimination, and frustration. The final keyword set included: 'Disrespect,' 'Less respect,' 'Dishonest,' 'Insult,' 'Threaten,' 'Harass,' 'Unfair,' 'Abuse,' 'Discourage,' 'Deny,' 'Difficult,' 'Racial jokes,' 'Humiliate,' 'Uncomfortable,' 'Afraid,' 'Discriminate,' 'Racist,' 'Sexist,' 'Homophobic,' 'Prejudice,' 'Bias,' 'Mistreat,' 'Microaggression,' 'Inequality,' 'Yell,' 'Shout,' 'Violent,' 'Scream,' 'Angry,' 'Hate,' 'Depress,' 'Rape,' 'Slap,' 'Punch,' 'Kick,' and 'Push.'

Once the list of keywords are finalised I used the subreddit specific file and developed a new Python script to extract the posts from this new dataset. The script was programmed to scan both the titles and bodies of posts, searching for the keywords mentioned above. Matching

posts were extracted into a separate CSV file for analysis. Using this method, I collected a total of 7671 posts.

Data Processing and Topic Modeling

Given the large volume of data, I employed the BERTopic modeling technique to facilitate deeper analysis by identifying patterns and topics within the dataset. BERTopic is a machine learning technique for data analysis that clusters similar text data based on their content, allowing for efficient topic generation in large-scale datasets (Aryani et al., 2024; Grootendorst, 2022). This technique was implemented using a Python script to streamline the analysis of the extracted Reddit posts. In the BERTopic model, I used sentence-transformers model. A sentence-transformers model maps sentences & paragraphs to a 384 dimensional dense vector space and can be used for tasks like clustering or semantic search. One of the core components of BERTopic is its Bag-of-Words representation and weighting with c-TF-IDF. This method is fast and can quickly generate a number of keywords for a topic without depending on the clustering task. The model generates several topics based on the keyword distribution, grouping similar posts together and assigns each group a label based on the most frequent terms, referred to as topic words. The first iteration of the BERTopic model generated only four topics shown in the table1 below.

Table 1

Initial BERTopic model results.

Topic number	Topic words	Number of posts	Assigned topic name	Relevancy (To this study)

Table 1 (cont'd)

-1	marijuana, pregnancy substance use, pregnancy substance, harm reduction toolkit, use harm reduction, substance use harm, reduction toolkit pregnancy, toolkit pregnancy, toolkit pregnancy substance, cannabis	28	Substance Use	Not relevant
0	nurse, patient, work, nursing, patients, nurses, hospital, care, shift, working	6720	Nurses	Relevant
1	pharmacy, pharmacology, nursing, pharm, pharmacist, drugs, nurses, drug, pharma, med	572	Medicine	Not relevant
2	colorado, license, nursing, nurses, denver, substance abuse, nurse, hospitals, hospital, moving	351	Location	Not relevant

In the table above, 'Topic number' is a unique identifier assigned to a specific topic generated during the modelling process. These numbers allows the users to reference and differentiate between the various topics identified in the data. 'Topic words' are the key terms or phrases that characterize a particular topic generated by the model. These words are extracted from the textual data and represent the most relevant or frequently occurring terms within the cluster of documents assigned to that topic. 'Number of posts' refers to the total number of posts assigned to a specific topic number. 'Assigned topic name' is the label I have given to each topic, since each section contains numerous topic words, I assigned a name to make it easier to reference and discuss about it. 'Relevancy (To this study)' has been added to the table to clarify the relevance of each specific topic to this study.

The results of the first iteration of BERTopic model run on the data set is shown in table 1. A few of the initial posts from each topic generated were analysed to determine whether it was valid to pursue that group of posts further. The posts were then assigned topic names based on the groupings. Following this review, it was determined that 6,720 posts from Topic 0 were relevant to the study, and the BERTopic model analysis was conducted on this subset of posts again. This time the model generated a total of 8 topics, these are shown in table2.

Table 2

Round 2 of BERTopic model analysis.

Topic number	Topic words	Number of posts	Assigned topic name	Relevancy (To this study)
-1	patients, nurses, nurse, patient, work, nursing, hate, care, hospital, icu	1158	Patient care	Not Relevant
0	like, nurse, nursing, patient, feel, patients, nurses, hospital, care, school	2669	Nurses	Not relevant
1	worst, patient, patients, nurse, worst thing, what's worst, nurses, hospital, yelling, stories	649	Patient care	Not relevant
2	hate, deleted hate, hate job, job deleted, removed hate, hate deleted, job removed, discouraged deleted, job hate, hate removed	538	Hate job	Not relevant
3	racist, patient, patients, nurse, harassment, nurses, sexual harassment, discrimination, nursing, hospital	327	Discrimination	Relevant

Table 2 (cont'd)

4	nursing, nurses, nurse, hate nursing, deleted hate, hate nurse, removed hate, hate nurses, nursing deleted, nursing removed	321	Deleted & Removed posts	Not relevant
5	depression, anxiety, depressed, night shift, nursing, sleep, depression anxiety, nights, nurse, nurses	282	Mental health impact	Relevant
6	covid, vaccine, mask, nurses, masks, patients, vaccinated, pandemic, nurse, unvaccinated	270	Covid Vaccine	Not relevant
7	nurses, hospital, nurse, week, nurses week, union, staff, nursing, patients, cafeteria	261	Organisation tree – hierarchy	Not relevant
8	color, colors, color scrubs, colored, nurses, yellow, coloring, scrub color, nurse, hair color	242	Scrub colors.	Not relevant

As the research focus of this study is discrimination, I stopped running the BERTopic model analysis after it grouped the posts related to discrimination in topic model 3. To be safe, I reviewed all posts from the other topic models to ensure the BERTopic model didn't misclassify any. During this review, I noticed some posts in other topic models were also relevant to the study. Ultimately, I analyzed posts from topic models 3, 5, and a few from the remaining models, resulting in a total of 637 posts.

In the process of analysing posts related to discrimination, I also uncovered a significant number of posts where nurses described experiences of sexual harassment from co-workers, patients, and patients' families. Notably, sexual harassment was not a focus of the existing burnout scales I initially reviewed. As a result, the scope of this research was expanded to address nurses' experiences with both discrimination and sexual harassment, and the impact these factors have on burnout. This study explores the findings related to both these issues.

I expanded the key terms to include synonyms and related terms for 'sexual harassment' and I repeated all the steps mentioned to extract new set of data. The newly added list of keywords were: 'sexual abuse,' 'sexual hatred,' 'sexual crime,' 'sexual pressure,' 'unwanted sexual advances,' 'inappropriate behaviour,' 'boundary violations,' 'physical touch,' 'sexual misconduct,' 'crude behaviour,' 'lewd comments,' 'catcalling,' 'sexual coercion,' 'unwanted attention,' 'assault,' 'groping,' and 'sexual exploitation.'

Using these terms, I extracted 918 new posts from the Nursing subreddit. After applying the BERTopic model, I identified 133 additional unique and relevant posts. Now we have a total 770 posts.

Manual Analysis and Codebook Development

Following the automated topic modeling, a subset of the topic models generated by BERTopic was selected for detailed manual analysis. A total of 770 posts were then thematically analysed using the software MAXQDA to develop a comprehensive codebook. The software's intuitive interface facilitated efficient identification of recurring themes and patterns, while its powerful visualization tools helped in analysing relationships between codes. This streamlined the process of deriving insights from large datasets, enhancing the overall rigor and transparency of the qualitative analysis.

The codebook was developed through an iterative process, starting with open coding, a qualitative research method that allows for the development of themes and patterns directly

from the data(posts). This involved reading and identifying key themes, concepts, and patterns that emerged from the data. Codes were then refined and grouped into broader categories to reflect recurring ideas relevant to the research focus, such as discrimination, sexual harassment, and burnout. As new themes emerged during analysis, the codebook was continually updated to ensure it captured the complexity of the data. This structured approach allowed for consistent coding and helped facilitate a more systematic and transparent analysis. Ultimately a codebook as shown in table 3 was created to document the codes and themes that emerged during this process. This codebook serves as a vital reference for understanding the qualitative findings of the study.

Table 3

Codebook.

Sub-codes		Definitions
Not relevant		These still show signs of burnout but not included in our scope of study. Example: Nurses still in nursing school, as I am dealing with only nurses who work in hospitals, care facilities etc
Discrimination - coworker	Race/Racial comments	This code is given when co-workers, such as nurses, doctors, lab technicians, or hospital staff shows discrimination towards nurses because of their race.
	Color	This code is given when co-workers, such as nurses, doctors, lab technicians, or hospital staff shows discrimination towards nurses because of their skin color.

Table 3 (cont'd)

	Gender	This code is given when co-workers, such as nurses, doctors, lab technicians, or hospital staff shows discrimination towards nurses because of their gender.
Discrimination - Patient/Patient's family members	Race/Racial comments	This code is given when patients or their family members shows discrimination towards nurses because of their race.
	Color	This code is given when patients or their family members shows discrimination towards nurses because of their skin color.
	Gender	This code is given when patients or their family members shows discrimination towards nurses because of their gender.
	Religion	This code is given when patients or their family members shows discrimination towards nurses because of their religion.
Seeking advice		This code is given to posts where nurses are asking their fellow nurses in the subreddit for advice on how to handle the situation.
Asking question	Gender - disc	This code is given to the posts where the users(nurses) asked the nursing community about gender discrimination in healthcare.

Table 3 (cont'd)

	about a situation	This code is given to the posts where the users(nurses) asked the nursing community about a situation they have been in that particular day.
Link doesn't work		Some of the links mentioned in the posts are not working anymore.
Violent/Combative/Assaultive patient or patient's family		This code is given to those posts which talks about how patients or their family members become violent or assaultive or combative, especially the patients with dementia.
Abuse - Patient	Verbal	This code is given to those posts which talks about how patients or their family members verbally abuse nurses.
	Sexual Harassment	This code is assigned to posts that discuss how patients or their family members sexually harass nurses.
Abuse - Co worker	Verbal	This code is given to those posts which talks about how co-workers verbally abuse nurses.
	Sexual Harassment	This code is assigned to posts that discuss how co-workers sexually harass nurses..
Emotions - Patient/family members towards nurses	Angry	This code is given to posts that talk about how patients or their family members become angry and yell at nurses.

Table 3 (cont'd)

	Disrespectful	This code is given to posts that talk about how patients or their family members treats nurses disrespectfully.
	Hate	This code is given to posts that talk about how patients or their family members hate nurses.
Emotions - coworker	Angry	This code is given to posts that talk about how co-workers become angry and yell at nurses.
	Disrespectful	This code is given to posts that talk about how co-workers become angry and yell at nurses.
Difficult co-worker		This code is given to posts that talk about how certain nurses are difficult to work with.
Difficult Patient		This code is given to posts that talk about how certain patients or their family members are difficult to work with.
Burnout		This code is given to posts which directly and explicitly talked about burnout among nurses.
Mental Health Impact		This code is given to posts that talk about how nurse's mental health is impacted because of their experiences with patients or their families or the co-workers.
Intervention		This code is used just to see if having any type of intervention could or would avoid the mental health impact on nurses when they face with something out of common.

Table 3 (cont'd)

Measures taken by hospital/management/co-worker		This code is given to posts that discuss whether the hospital, management, doctors, nurses, or any other co-workers did anything in favor of the nurse who raised the concern.
Ignored by hospital management		This code is given to posts that discuss whether the hospital, management, doctors, nurses, or any other co-workers ignored the nurse's concern.
Exhausting Night Shifts		This code is given to posts that talk about how night shifts exhausts the nurse's mental health and physical health.
Discrimination towards male nurses	used male nurses for their muscles	This code is given to posts that talk about how health care professionals treat male nurses. For example: male nurses are called only when patient becomes violent.
Blaming themselves		This code is given to posts that talk about how nurses blame themselves for any incident that happened or for not reacting to a situation in a certain way.
Other		If the post doesn't fall under any of the above codes, it will be assigned this code.

RESULTS

Themes – Burnout, Discrimination, Sexual Harassment, and Burnout due to discrimination and sexual harassment.

The analysis of the Reddit data revealed that nurses face burnout due to a variety of factors, often without recognizing it as such. Initially, they may interpret their feelings as emotional or physical exhaustion, failing to identify the symptoms of burnout until it has significantly escalated. This gradual realization can lead to detrimental consequences, as they may feel overwhelmed and unable to address the underlying issues in a timely manner.

If not addressed, burnout can severely impact nurses' mental health, contributing to anxiety, depression, and much more. Our findings identified several key themes associated with this phenomenon, including various forms of discrimination from patients and their families, discrimination from co-workers, and instances of sexual harassment by both patients and colleagues. These stressors, if left unaddressed adversely affects the well-being of nurses, which in turn will impact the patient care.

Burnout

Burnout is defined as a state of emotional, physical, and mental exhaustion caused by both acute and chronic stress (Jun et al., 2021). Burnout is not something that is immediately noticed or experienced after the first encounter, but rather, it develops over time. There are posts where nurses explicitly mention they are burned out and specifically discuss what has made them feel this way. A nurse mentioned

> "… i think im really starting to hate my job because i generally get super anxious and dread going into work. everyone in person i ask says its normal to hate your job and that it's probably burnout but i dont know. im starting to really dislike my coworkers and i generally dont seem to have much for patience for the patients. i feel stupid 99% of the time and an

> inconvenience to pretty much everyone i work with. i can also tell my performance has been sucking. overall im just overwhelmed and i think im just looking for someone to tell me its ok to quit once i hit the year mark."

This post could be considered a description of burnout from the nurse's perspective. The nurse states, "I generally get super anxious and dread going into work", where feeling anxious and dreading work reflects emotional exhaustion, a core component of burnout. They also mention, "dislike my coworkers and don't seem to have much patience for the patients", which suggests resentment and detachment, hallmarks of depersonalisation. Self-doubt and a reduces sense of accomplishment emerge as they feel "stupid 99% of the time and an inconvenience to pretty much everyone I work with." Together, these elements indicate a significant struggle with burnout.

Building on this, another nurse opens up about their own struggles with burnout, sharing what's weighed on her and brought her to a similar breaking point.

> "So I kind of hate being a nurse I'm currently employed as an Licensed Practical Nurse (LPN) in a long term care facility. I don't even have a year's worth of experience (not until September) and I am already suffering from burnout… I'm sure everyone has the same complaints that I do, but for some reason my job just really drags me down. I go in there five days a week, bust my ass for other people, and get very little (if any) satisfaction from my job. I don't really feel like I am helping any. I just feel like a pill pusher. I feel like I have way too much piled on me and, most days, I leave without being able to finish my work. It's not like I dick around all day, but it is just way too much for one person to do. I don't understand why management seems to think that the nurses are robots or superhumans. In fact, today I was explaining to my boss that I hadn't done my charting in two days because I have been so

> swamped. Her response was to chuckle and tell me I "need to get it done." How, and when? I haven't even had time to take a bathroom break. Not being able to finish my work also makes me feel like a crappy nurse…"

This nurse's experience reflects classic signs of burnout, characterized by emotional exhaustion, a sense of inefficacy, and overwhelming stress. Despite having less than a year of experience, she expresses deep frustration and dissatisfaction with her role, describing how her job has begun to "drag her down." Feeling like merely a "pill pusher" highlights her lack of personal fulfilment and connection to meaningful patient care. The overwhelming workload, compounded by the inability to finish her tasks, fuels her sense of inadequacy, especially when she struggles to find time even for basic breaks. The dismissive response from her boss, who trivializes her concerns about uncompleted charting, reinforces the perception that nurses are treated like "robots" or "superhumans." This lack of empathy not only exacerbates her feelings of isolation but also underscores systemic issues contributing to burnout, ultimately leading her to question her competence and feel like a "crappy nurse," despite her tireless efforts.

Burnout not only affects the daily performance of nurses, but it can also lead to quitting their jobs. One nurse, for example, posted

> "I just quit my job because of severe burnout and resulting stress/depression. I don't know what to do from here. The thought of going back to bedside nursing makes me dread the rest of my life. Advice would be so appreciated"

The individual expressing this sentiment has reached a breaking point, leading to the decision to quit their job due to severe burnout and the accompanying stress and depression. This suggests that the demands of their nursing role have become unsustainable, significantly impacting their mental health and overall well-being. The mention of dreading the prospect of returning to bedside nursing indicates a profound disconnection from their profession,

signalling that the work environment has become a source of significant emotional pain rather than fulfilment.

Discrimination

The experiences nurses mentioned in the reddit posts represent how nurses face discrimination based on race, ethnicity, and gender. Numerous posts from different nurses illustrate the blatant prejudice they face from patients, patient's family members, and their co-workers. There are a few posts where nurses mentioned that the patients used n-word while making racial comments. One nurse shared their experience in which a patient behaved racist,

> "...he began calling me the n-word, berating me and my education (saying I'm not smart enough and must have gone to junior college), making racist jokes, touching my hair asking if it's real."

From this post we see that the patient not only made racial comments but also violated the nurse's personal space by touching the nurse's hair. The Black nurse's statement reveals the pervasive racial discrimination she faced, where derogatory slurs, assumptions about her education, and demeaning jokes were used to undermine her professional competence and identity. This form of discrimination highlights how racism manifests through both verbal abuse and disrespectful treatment, contributing to a hostile work environment. Building on this, another nurse described an similar encounter of a colleague, a sitter is a bedside nurse, the post says,

> "...a confused old dude called his sitter a ' f***ing n***er during one of his agitated periods…I've been called all kinds of things by confused patients, had them scream that I was raping them, etc. But there really isn't anything that I could be called that carries that kind of weight. "

The nurse felt that they are even ok being called a rapist rather than the n-word. These instances reveal the intensity of racial slurs the nurses face, regardless of a patient's mental state.

These are not isolated incidents. There are patients who made comments on the appearance of the nurses other than White nurses. One nurse recalls introducing herself to a patient only to experience discrimination

> "As I'm introducing myself to them, they say, 'Look at my skin. I don't want a Black nurse. I want a white nurse. I want that Black out of my room.'"

Such statements from patients directly target nurses' race, and the nurses cannot escape this treatment by patients. It highlights blatant racism within a healthcare setting, where the patient explicitly rejects the nurse based solely on her race. The patient's dehumanization of the nurse, reducing the nurse's identity to her race rather than recognizing her as a qualified healthcare professional.

It's not only patients who exhibit racist behaviour, patient's family members also contribute to it. One nurse shared,

> "Just today, I had a patient's spouse complain that there are no American doctors anymore, that the hospital is just full of foreigners."

These remarks reflect broader societal prejudices that manifest in the healthcare setting, undermining the contributions of immigrant healthcare workers. The spouse's complaint suggests a preference for American doctors based on nationality which can reflect a broader sentiment of prejudice. It implies that the spouse values local, American healthcare providers over foreign professionals, potentially disregarding the qualifications and competencies of foreign-trained doctors.

It is not only patients and their families who show discrimination towards the nurses but also there are some situations where nurses show discrimination towards their co-workers. A nurse described an encounter where a white colleague commented on a Black nurse searching for a pen, saying,

> "Get your Ebola hands out of there."

The white nurse here made a racially charged and discriminatory remark by invoking a harmful stereotype to associate the nurse of colour with disease based on ethnicity. When I say discrimination it is not only from White people towards nurses of other races or ethnicity but also to our surprise there were instances where White nurses faced discrimination too from their co-workers too. Discrimination cuts across all racial and ethnic lines; as one white nurse revealed,

> "I work with lots of Hispanics. They constantly call me 'weta,' which is slang for 'white girl,' and it's derogatory. They also call me 'gringa' and just say stupid stuff to me because I'm white."

This post shows us that discrimination has no boundaries and that it is not only faced by people of colour but also by Whites at times. Ethnic and racial discrimination isn't the only form of prejudice nurses face. Some co-workers make targeted, xenophobic comments, as mentioned by a nurse in a post,

> "... where are you from?" "No, where are you REALLY REALLY from" when I insisted that I was originally from California & an American. She proceeded to ask where my parents were from and it was irritating af…"

Despite insisting that they were from California, the coworker persisted in questioning their background, showing a deep lack of respect for their identity as an American.

Discrimination doesn't stop at race. Gender biases also affect nurses. Male nurses are often subjected to outdated stereotypes, as one nurse mentioned

> "...some old people are like, 'Oh, they are male nurses? Oh well, modern times.' I got called gay for working 'a woman's job…I met two residents. "Just a nurse huh? To stupid for med school, huh?"…"

Even fellow healthcare professionals contribute to this gender-based discrimination. The male nurse's statement highlights the gender discrimination he faces, where older patients express

surprise or discomfort about men in nursing, implying it's not a "man's job." Additionally, being labelled as gay for working in a female-dominated profession reflects harmful gender stereotypes, questioning his masculinity and reinforcing outdated notions about gender roles in the workplace.

These examples shed light on the deeply ingrained discrimination that many nurses face daily. Whether it's racism, sexism, or prejudice, these behaviours not only affect the well-being of healthcare workers but also compromise the quality of care patients receive. Addressing these systemic issues is crucial for creating an equitable and supportive healthcare environment.

Sexual Harassment

In addition to discrimination, we see from the posts that nurses also face some instances of sexual harassment from patients, their families, and co-workers. Nurses describe feeling vulnerable and often unsure of how to respond when they experience an unexpected encounter. One nurse shared their sexual harassment encounter with a patient,

> "… This was my first time changing a male patient and I was pretty nervous … I was especially nervous because he was 100% cognitive, so he knew what was going on. I saw him reach for my behind as I was putting on the fresh brief and stepped away. I felt very uncomfortable but quickly finished the job and moved on. He then proceeded to ring the call bell for the rest of my shift for small things … it got me thinking about my future career and the possibility of sexual harassment as a female by patients …"

The nurse's post reveals an instance of sexual harassment, where a patient attempted to touch her inappropriately while she was performing her duties. This unwanted physical advance created a deeply uncomfortable situation, highlighting the vulnerability nurses face to such misconduct in their workplace. The nurse stated that she felt uncomfortable due to the

patient's behaviour toward her. She mentioned that she also had to visit the same patient multiple times, as the patient repeatedly rang the call bell. Regardless of what may or may not have happened, the nurse would enter the patient's room with apprehension about what might occur next. From that single encounter it has become a hostile work environment that could lead to emotional exhaustion. Building on this, another nurse described,

> "…he was just holding my hand a lot, then when he motioned to come close to hear what he's saying, as is common for the elderly, he gave me a kiss. First one hit my mouth, second and third on the cheek. I got away from him and just tried to casually finish, while he told me twice that I was a pretty lady and tried to get me down to his face again… He's not on my normal assigned unit, and I won't even be working that frequently, but it did make me uncomfortable, and I just about gargled purel. I probably won't see him again too often, but now it worries me. And now that it's happened, I'm bothered by the thought of how other male patients might be with me. My first thought was "I shouldn't wear make up at work anymore", and I like, never not wear make up to work… I had a kind of rough time today and even though this wasnt that huge it's still really bothering me…"

In this post a nurse describes her experience with unwanted advances from a patient. What began with him 'holding my hand' escalated quickly when he kissed her 'First one hit my mouth, second and third on the cheek' crossing personal boundaries that made her feel uncomfortable and vulnerable. Even though he's not in her usual unit and she won't see him often, the encounter has left her feeling 'uncomfortable'. The fact that she found herself thinking about how to change her appearance 'I shouldn't wear make up at work anymore' highlights the emotional toll this incident has taken on her. Her first instinct is to alter herself to avoid unwanted attention. Although she tries to brush it off as not being a 'huge' deal, it

clearly weighs on her. This discomfort, though it may seem small, adds to the stress of her job and can lead to feelings of anxiety and fear about future interactions. Such moments can accumulate, creating an environment where she feels unsafe and unsure, ultimately contributing to burnout.

In another post, a nurse's boyfriend shares her experience, describing how the harassment she faces at work has deeply affected her well-being. The post reads,

> "…a patient who been beating on her. Makes sexual references. Tonight while helping him in the bathroom he grabbed her by the neck pulled her down and told her to taste it…she has been reporting these instances, but with nothing coming of it. She fears she'll lose her job speaking up … He cornered another girl the other day and beat the hell out of her. They all hope he hits another patient so they can legally get rid of him …"

This post reveals a troubling situation as mentioned by the nurse's boyfriend, where a nurse is experiencing direct sexual harassment and physical violence from a patient. The patient's behaviour 'making sexual references and physically assaulting her' creates a dangerous and hostile work environment. The incident described, where he 'grabbed her by the neck pulled her down and told her to taste it' is a severe violation of personal safety and boundaries, which can lead to significant emotional trauma. Despite her efforts to report these incidents, the lack of action from the facility only heightens her feelings of helplessness. She fears that speaking up could jeopardize her job security, and this fear can lead to emotional exhaustion, as she constantly navigates the stress of feeling unsafe at work while worrying about the repercussions of voicing her concerns. The mention of the patient having previously cornered another girl and physically assaulted her indicates a pattern of behaviour that not only threatens the safety of staff but also perpetuates a culture of fear. The fact that other nurses are hoping for this

patient to harm someone else just to justify his removal underscores the desperation of the situation and the lengths to which they feel they must go to protect themselves.

These violations are not limited to inappropriate physical contact. Nurses discusses about how patients verbally harass them, as seen in this post,

> "…So today at work my patient asked me "what do you have planned today?" Which I thought was a little odd, I asked him if there was a something specific he wanted to accomplish and he replied that he wanted me to "close the door and do a little striptease."…"

The nurse's statement reveals a clear instance of verbal sexual harassment, as the patient made an inappropriate and objectifying request for a striptease, crossing professional boundaries. This comment not only undermines the nurse's role as a healthcare provider but also places her in an uncomfortable and potentially unsafe situation, highlighting the challenges nurses face regarding unwanted sexual advances in their work environment. Building on this another nurse shared their sexual harassment encounter with their patient,

> "…one patient in particular makes really sexual comments. One comment in particular talked about him grabbing me, which really caught me off guard. I feel trapped because this patient is particular is known to complain at the drop of a hat, and at my facility, all patient complaints are taken very seriously. I don't want to complain about him because I don't want him to turn around and make life hell for me, which I can totally see him doing …"

The patient's suggestive comments, especially one involving the threat of physical contact, have left her feeling vulnerable and caught off guard. She feels "trapped" because this particular patient is known to complain about staff, and in her facility, all complaints are treated very seriously. Reporting the harassment could backfire, as she's afraid the patient might retaliate and make her work life miserable. This constant tension, having to manage her safety

while fearing backlash if she speaks up, adds an emotional toll. Being forced to choose between enduring this behaviour and protecting her job creates a draining and hostile work environment, likely contributing to emotional exhaustion and pushing her closer to burnout.

It's not only the patients who behave inappropriately; family members can be just as invasive. One nurse posted,

> "…A patients family member is sexually harassing me. He kissed me on the lips when I worked Christmas night. He told me he had a present for me and laid a kiss on my lips. I have felt uncomfortable ever since. Today he asked (almost demanded) that I dance with him for his mother, the patient…I feel helpless and I am uncomfortable coming to work…"

Working on Christmas night, a time when she might already feel vulnerable or isolated, this assault would add an extra layer of emotional weight, making her feel unsafe in what should be a secure environment. The discomfort she mentions reflects not only her physical reaction but also a lingering sense of unease that could disturb her future interactions with any patient families.

Co-workers also contribute to the culture of sexual harassment. A nurse mentioned,

> "… I have been on and off sexually harassed by a male RN co-worker…when we first met he had touched me inappropriately and would become passive aggressive whenever I would tell him to stop… he had called me a slut at a staff party…"

The female nurse in this situation is expressing a troubling experience of ongoing sexual harassment by a male RN co-worker, highlighting both inappropriate physical behaviour and verbal abuse. His passive-aggressive reactions when confronted suggest an underlying power dynamic, where he tries to exert control by punishing her for asserting herself. The verbal assault, calling her a "slut" at a staff party, further escalates the harassment into public

humiliation, deepening the emotional harm. This derogatory name-calling not only demeans her personally but also undermines her professional dignity in front of colleagues. Building on this, a male nurse described their sexual harassment encounter with their female co-workers. They stated,

> "… it is not ok to do the following … Walk up behind them while they're preparing the glucometer and pinch their buttcheek hard enough to bruise. Hug them from behind while they're on break eating and give them "playful" neck kisses. Put your hand over their mouth and kiss your hand while making moaning noises. Suggest your coworker come over and clean your house in a bathing suit/maid outfit you provide for them. Several times. Speculate about your coworker's genitals or their skill at using them. I've experienced all of these personally in the past ~2 years I've worked at my hospital. And all of the coworkers doing these things were women. As a (younger) guy it feels like I'm not taken very seriously in healthcare unless I make a specific effort to assert boundaries… Harassment from patients I can brush off. Horny grandmas don't bother me, but I'm supposed to be able to trust my coworkers and go to them for assistance and to blow off steam…"

The nurse describes multiple instances of sexual harassment by female coworkers. Each behavior, from physical invasions of personal space to lewd suggestions and comments, violates his boundaries and sense of safety in the workplace. Actions like being pinched, hugged from behind, and kissed without consent cross the line from friendly interactions into harassment. While he can 'brush off' harassment from patients, feeling violated by coworkers, people he should be able to trust, represents a serious breach of trust. In high-stress fields like healthcare, coworkers are supposed to be allies, but instead, he feels isolated and disrespected. As a younger man, he also senses that his boundaries are not taken seriously, which adds to his

stress. Rather than being able to relax on breaks or 'blow off steam' with colleagues, he feels tense and unprotected, unable to rely on his team for support. Over time, this constant strain can lead to burnout, leaving him feeling drained, alone, and struggling for basic respect at work.

Male nurses are also subjected to inappropriate behaviour from patients. One nurse shared,

> "As a male, I get a lot of comments from the patents. I feel like one giant sex symbol. I get grabbed/touched inappropriately, I get comments all the time, like today (I have a full sleeve) I was asked with a wink if I have tattoos on my butt followed by a "you'll have to show me" before I could even answer. I mean I could write a book on the shit that's said to me. I m not crazy about it … By and large its not seen as an issue, but to me it is, Id rather not have someone grab me when I try to help them… It makes for a rather unsettling work environment…"

He describes feeling like "one giant sex symbol," where his role as a professional is often overshadowed by how people see his body. Patients don't just comment, they grab him and make suggestive remarks, like asking if he has tattoos on his butt and saying, "you'll have to show me," before he even has a chance to respond. Although these interactions might seem harmless to others, they've made his work environment uncomfortable, as he mentioned 'It makes for a rather unsettling work environment.'

These accounts demonstrate that sexual harassment is a pervasive issue in healthcare, affecting both male and female nurses. The harassment comes from patients, their families, and even fellow healthcare workers, leaving nurses feeling helpless, violated, and unsure of how to defend themselves against such behaviour.

Burnout due to discrimination and sexual harassment

I observed in some posts that nurses mentioned being sexually harassed or discriminated against because of their race, gender, or ethnicity, which negatively impacts their mental health. There is another nurse who mentioned she is sceptical about coming back to work the next day because of the racial discrimination they experienced,

> "I've been working for over a year now and luckily haven't dealt with many but now I've been assigned a patient who I know casually used a racial slur that applies to me to their nurse the other day in conversation. The patient's been noticeably short with me and gives me 1 word commands when they want something, are uncooperative when I try to do simple tasks like hook them up to IV tubing (they literally sat like a statue when I asked them to remove their shirt so I could get to their IV and I had to physically take off this person's shirt while I'd just seen them walking around their room and moving clothes around). It's also so draining because this is a heavy patient who takes up most of my shift and I'm constantly in their room. I don't want to ask not to have them as my patient because I know they're a difficult assignment and don't want it to seem like I'm just passing them off but it's so hard to keep my composure and morale around them, especially when I have other really nice patients who I don't get to check in with as much because of this other one. I'm back tomorrow and am dreading doing it again."

This post talks about the physical exhaustion of the nurse. This nurse's experience reflects several contributing factors that can lead to emotional exhaustion and decreased morale. Having worked for over a year, she may already be feeling the cumulative effects of stress from her workload. Now, facing a particularly challenging patient who has displayed not only racial hostility but also uncooperative behaviour, adds a significant emotional strain. The emotional

toll is intensified by the heavy patient load, which monopolizes her time and energy, preventing her from connecting with other patients who are more pleasant and cooperative. This imbalance not only heightens feelings of frustration but also contributes to a sense of isolation, as she may feel trapped in a negative dynamic without the ability to seek relief. The dread of returning to work signals a significant emotional burden and suggests that she is at risk of experiencing burnout, characterized by emotional fatigue, diminished professional efficacy, and a sense of detachment from her role as a caregiver.

There is another nurse how it makes them feel in terms of mental health when patients behave as racists,

> "…My parents are from North Africa and they immigrated before I was born, in my current country. Anyway, the patient, out of nowhere, started to talk about politics and the dreadful effect of immigration (especially from the country of my parents). He then portrayed them as criminals, bloodsucking parasites, and very dishonests people. Of course, that hurt me and I felt the need to interrupt this conversation and to notify him that I was, indeed a children of immigrants from this country in particular, and that I wanted this conversation to stop. He was speechless because according to him, "I didn't look like one" He proceeded to ask me suspiciously if I followed the "traditions" of my parents's country… I am sharing this with you because I realize that in this kind of situation, I am overwhelmed with emotions to the point that I don't even know what to reply…"

The nurse's experience reflects a deeply emotional and complex situation where her identity and heritage are being directly attacked. The patient's derogatory comments about immigration, specifically targeting her parents' country, not only reveal their prejudiced views but also create an uncomfortable and hostile environment for her as a caregiver. This

conversation hurt the nurse as she mentioned “Of course, that hurt me.” Her reaction of feeling overwhelmed to the point of not knowing how to respond is a common reaction to such confrontations, especially when one’s identity is challenged. This indicates a struggle between her professional role as a nurse and her personal feelings, leaving her feeling vulnerable and conflicted. In a healthcare setting, where compassion and care are paramount, encountering such ignorance can evoke feelings of anger, hurt, and frustration, potentially leading to emotional exhaustion over time.

Another nurse talks about how a racist’s patient’s behaviour impacted their mental health,

> “The patient has a history of work place violence towards women, so I’m sure that’s the reason I (male) was placed as their nurse. As I’m introducing myself to them, they say Look at my skin. I don’t want a black nurse. I want a white nurse. I want that *blank* out of my room… It sucks being the only black person on the unit…Not sure why I’m posting this, but just feeling unmotivated to eat, or shower, or study for school on Tuesday. Here’s hoping that tomorrow will be better.”

This nurse's experience highlights the profound impact of racism and bias within the healthcare environment. His statement, "I don’t want a black nurse," signifies not only racial discrimination but also undermines the nurse’s professional identity, reducing him to the colour of his skin rather than recognizing him as a qualified caregiver. Being the sole representative of a marginalized group in a predominantly white environment can amplify feelings of alienation and heighten the stress of navigating workplace dynamics. The awareness of being perceived through a racial lens rather than as an individual can diminish his sense of belonging and self-worth. The emotional toll of dealing with such overt discrimination can significantly contribute to burnout. When a caregiver faces consistent rejection or bias, it creates an ongoing

emotional burden that can lead to feelings of demoralization, fatigue, and detachment. The nurse's admission of feeling unmotivated to engage in basic self-care activities, like eating, showering, or studying, suggests that he is experiencing a significant decline in mental well-being, which is a hallmark of burnout.

There is a post where a nurse talks about how her mental health impacted after having a sexual harassment encounter,

> "… I am a hospice nurse and I love my job. Several months ago, one of the chaplains (male) requested oral sex from me. It was shocking, embarrassing and honestly, I became physically ill after I removed myself from the situation… Since this incident, I have begun to show signs of increased anxiety and depression. I have trouble sleeping, I have trouble getting out of bed, I have trouble leaving the house. I am currently working with a psychiatrist. Two months ago, I decided my mental health was more important and I changed from working in Home Care and moved to the Inpatient hospice in order to get away from this chaplain and from my boss who doesn't seem to care about what I was going through. Now, this same chaplain has been "filling in" and taking "on call" for other chaplains in my organization. This means there is a very real possibility he could show up to the Inpatient center any time. The thought of being around him again only increased my anxiety. I told my new boss about what had occurred. My new boss is supportive and I do feel like she is on my side… I want to scream, yell, call the local news and get a lawyer. I want to tell everyone everything and also stop pretending that I am okay…"

The chaplain's request for oral sex is not only inappropriate but constitutes a severe breach of trust and respect, particularly in a sensitive environment like hospice care. This encounter can

lead to feelings of shock, embarrassment, and violation, making the nurse feel unsafe in her work environment. Her immediate physical reaction of becoming ill after the incident, highlights the intense psychological impact such harassment can have on an individual. The lasting effects of this harassment manifest as increased anxiety and depression, which can severely disrupt her personal and professional life. Difficulty sleeping, reluctance to leave the house, and struggles with getting out of bed are all signs of the emotional toll she is experiencing, indicating that the harassment has extended beyond a single incident and permeated her daily life. These are all the clear signs of burnout.

DISCUSSION

The current burnout scales lack two crucial factors, discrimination and sexual harassment, which I have identified through this study. Discrimination based on race, ethnicity, age, gender, and religion, as well as both verbal and physical sexual harassment, exacerbate the symptoms of burnout, yet they are not included in the burnout scales that are in practice today. As a result, these scales may overlook key contributors to burnout, leading an incomplete understanding of its root cause.

The data reveals a troubling pattern in which discrimination and sexual harassment encountered by nurses are dimensions of burnout. Nurses are subjected to unfair treatment from various sources, including patients, patients' families, and co-workers, creating a hostile work environment that fosters stress and trauma. Numerous posts detail how nurses feel after experiencing unexpected encounters, ranging from verbal abuse to physical harassment. Some nurses expressed feeling trapped and helpless, overwhelmed by the constant mistreatment. In contrast, others internalized the blame, thinking they were responsible for how they were treated. These deeply harmful experiences often leave nurses feeling as though quitting their jobs is the only viable option for protecting their mental health.

From the literature we see, burnout is described as a psychological syndrome characterized by three main components: emotional exhaustion, depersonalization, and a diminished sense of personal accomplishment. In the posts I analysed, nurses describe experiencing various types of discrimination, including race, ethnicity, age, and gender biases. One nurse even shared that she feels more comfortable being labelled a “rapist” than hearing racial slurs like the N-word, underscoring the deep impact of these experiences. The posts reveal that discrimination often comes from patients, their families, and coworkers. There is a prevailing sentiment that people prefer to be treated by white American nurses, while nurses of other races and ethnicities face scrutiny and bias. It is dehumanizing how patients and their

family members judge a nurse by their skin color and physical appearance rather than on their professional qualification. Nurses mention how these encounters lead to emotional exhaustion, loss of interest, and withdrawal from others, all classic signs of burnout. Our findings suggest that discrimination is not separate from burnout but rather contributes directly to it. However, current burnout scales fail to capture this, as they do not include questions addressing discrimination. As a result, these scales overlook a critical factor in assessing burnout among nurses.

This study also explores nurses' experiences of both verbal and physical sexual harassment. Nurses describe instances where patients, patients' families, and even coworkers sexually harass them. Cognitively intact patients, for example, sometimes behave inappropriately by touching, grabbing, or pressuring nurses to perform tasks that make them uncomfortable. These encounters catch nurses off guard, leaving them feeling uneasy in these patients' presence. However, once a patient is assigned to a nurse, it's likely that the nurse will have to interact with them multiple times a day for various reasons, such as answering call bells or taking vitals. Nurses report that having to repeatedly return to the same patient made them feel increasingly uncomfortable. Some nurses even expressed self-blame for inappropriate behaviour they experienced from patients, patients' families, or coworkers. Both male and female nurses report experiencing sexual harassment; it's not limited to female nurses alone. These distressing experiences contribute to emotional exhaustion—a key symptom of burnout—and have driven some nurses to consider quitting their jobs. Despite this, globally accepted burnout scales do not include questions about sexual harassment, making it difficult to fully capture burnout among nurses.

Further compounding this issue is the lack of support from hospital administration and higher management. In many cases, when nurses attempt to report incidents of discrimination or sexual harassment, their complaints are dismissed, perpetuating the cycle of mistreatment.

Sometimes, management tells nurses to “get used to” discriminatory behaviour from patients. When complaints are dismissed and nurses must repeatedly interact with the same patients, they feel increasingly uncomfortable. This lack of institutional response not only leaves nurses feeling isolated and unsupported but also sends the message that such behaviour is tolerated in the healthcare setting. This toxic culture erodes nurses' confidence and morale, making it even harder for them to perform their duties effectively. Dismissed complaints place an additional emotional burden on nurses, forcing them to cope with these situations alone, which can lead to emotional exhaustion, a primary symptom of burnout, as they feel they lack support. Despite these challenges, there are instances where male nurses have stepped in to support female colleagues in cases of harassment, and vice versa. Some posts also reflect instances where managers or administrative staff have supported nurses dealing with harassment or discrimination, though these instances appear to be rare.

Nurses face a wide range of challenges daily, many of which go beyond the typical demands of patient care. Sexual harassment by coworkers, patients, and patients' family members is a recurring issue, and discrimination based on race, gender, ethnicity, age, religion, and physical traits like height is pervasive. These forms of mistreatment are deeply unfair, especially given that nurses are there to provide care and support to patients. When nurses feel unsafe or unprotected in their work environment, their well-being suffers. This stress, combined with the emotional toll of harassment and discrimination, erodes their resilience and motivation over time, leading to burnout. Burnout not only compromises the quality of care nurses can provide but also places patients’ health at risk, as nurses struggling with these cumulative effects may ultimately decide to leave the profession. This cycle not only threatens individual nurses’ careers but also exacerbates staffing shortages, increasing the strain on the healthcare system as a whole.

Additionally, when a nurse is responsible for a patient who behaves inappropriately or harasses them, they are still required to continue providing care, often returning to the patient's room multiple times to monitor their health. This repeated exposure to a hostile or potentially dangerous situation becomes a constant source of distress, making it nearly impossible for the nurse to feel safe in their work environment. Each encounter reinforces feelings of vulnerability and helplessness, which directly feed into burnout. Over time, the psychological toll of repeatedly returning to a space where they are mistreated blurs the line between doing their job and enduring harassment. In this sense, harassment and discrimination are not separate contributors to burnout—they are burnout in action. The unaddressed mistreatment creates a persistent emotional strain that can drain nurses' resilience, undermine their sense of security, and, eventually, lead them to question whether they can continue in the profession.

Feelings of helplessness and vulnerability are a part of burnout because they reflect the emotional toll burnout takes on individuals. When a nurse is burned out, they often feel emotionally exhausted and see a reduced sense of accomplishment in themselves. Vulnerability arises from depersonalization, as nurse tries to keep their distance from everyone when faced with challenges at workplace. This makes them feel disconnected from others. This is how feelings of helplessness and vulnerability leads to burnout among the nurses.

We can imagine how hurtful and helpless it must feel when a patient makes racial comments, especially in a professional setting where a nurse's primary focus is on providing care. Racial comments, whether subtle or overt, don't just create discomfort but can chip away the nurse's sense of dignity and create an emotionally exhausting environment, becoming part of the burnout experience itself. For a nurse, facing the dual pressures of a demanding job and racial or discriminatory harassment isn't simply an added burden, it's a form of burnout. The expectation to stay calm and composed in these moments is a stark contrast to the valid feelings of anger, frustration, and discomfort that arise when their autonomy and humanity are

disrespected. Over time, the need to endure these daily aggressions while fulfilling professional duties becomes burnout itself, as it drains their resilience and ability to fully engage in their role.

From the quotes mentioned in the results section, we can see that discrimination, sexual harassment, and burnout are not three individual conditions but instead they are interconnected. This study suggests that there is a need to update existing burnout scales, as discrimination is not different from burnout. Rather, discrimination can be a trigger for burnout, developing when individuals face repeated discrimination based on factors such as race, ethnicity, age, gender, and other characteristics. None of the burnout measuring scales includes factors like different types of discrimination or sexual harassment (both physical and verbal). For instance, the work-related burnout questions in Copenhagen Burnout Inventory scale include, 'Is your work emotionally exhausting?', 'Do you feel burnt out because of your work?', 'Does your work frustrate you?', 'Do you feel worn out at the end of the working day?', 'Are you exhausted in the morning at the thought of another day at work?', and ' Do you feel that every working hour is tiring for you?' While these questions assess emotional and physical fatigue, they do not directly address whether discriminatory treatment or sexual harassment in the workplace is contributing to the burnout.

Although there are scales specifically designed to measure discrimination, such as the Everyday Discrimination Scale (EDS), these tools are not tailored to healthcare professionals. They primarily measure whether an individual has experienced discrimination based on their race, ethnicity, religion, or other characteristics, but they do not assess whether these experiences are contributing to burnout. This gap is critical, as the results from discrimination scales can tell us if someone has been discriminated against but cannot indicate whether this ongoing discrimination is leading to emotional exhaustion or burnout. Burnout, particularly in high-stress environments like healthcare, develops gradually as individuals encounter repeated

challenges or mistreatment. For example, a nurse experiencing racial discrimination for the first time might feel upset, but it may not be enough to cause them to quit their job. However, if such discriminatory experiences accumulate and persist over time, they could gradually degrade the nurse's mental and emotional well-being, leading to feelings of helplessness, frustration, and ultimately, burnout.

There are separate scales, such as the 'Everyday Discrimination Scale (EDS),' to measure experiences of discrimination. The EDS primarily measures how often an individual perceives discrimination, such as being treated with less respect or feeling insulted due to their identity. However, it does not capture core burnout symptoms like emotional exhaustion, depersonalization, or reduced personal accomplishment, dimensions critical to defining burnout. The EDS is designed to measure the frequency and types of discrimination a person experiences daily, but it does not capture core burnout symptoms and signs. While the EDS reveals frequent experiences of discrimination, it does not measure how these experiences lead to burnout among nurses. Additionally, the EDS is not designed to capture or assess workplace-specific factors. Relying only on this scale would overlook significant factors contributing to burnout that extend beyond discrimination.

This disconnect highlights the need for an updated burnout scale that considers the impact of systemic issues like discrimination and harassment, which are often underreported and overlooked in healthcare settings. Burnout is not just the result of heavy workloads or emotionally exhausting tasks; it is also driven by how individuals are treated in their professional environment. Without addressing these contributing factors, current burnout scales fail to capture the full scope of the problem, leaving many healthcare professionals unsupported in their struggle with the psychological toll of discriminatory behaviour in the workplace.

Burnout among nurses has significant economic impacts. As seen in the quotes, when a nurse feels burned out or recognizes the signs and symptoms of burnout, they may decide to quit their job. When an experienced nurse leaves, the hospital must hire a replacement, often at a higher salary, resulting in increased costs. Even if the hospital can afford to hire a new nurse, they typically recruit from another hospital. If the other hospital can afford to pay more, they may try to retain their nurse; if not, they may let them go. This creates a cycle where hospitals continually replace lost nurses, until eventually, due to financial constraints, a hospital may fail to fill the position. In such cases, the workload is redistributed among the remaining staff, leading to overtime, irregular hours, understaffing, and underpayment, which can contribute to medical errors. These errors can result in substantial financial costs for the hospital. To mitigate these issues, it is essential to update the burnout scales to include the two crucial factors identified in this study, enabling hospitals to identify burnout early and prevent further economic consequences.

It is not only when a nurse quits that it has an economic impact on healthcare, but it can also result from other consequences of burnout among nurses. These include medical errors, negatively associated with quality and safety of care, organizational commitment, presenteeism, absenteeism, or diminished productivity. Since these outcomes can lead to significant economic consequences for the entire healthcare sector, addressing nurse's burnout is essential. Updating existing burnout measuring scales to include newly identified factors, such as discrimination and sexual harassment, can help better identify burnout among nurses.

Limitations

The study also has a few limitations, as we do not the exact demographic information of the Reddit users. Knowing user demographics is important to identify patterns in how instances of discrimination and sexual harassment instances occur and how they contribute to burnout. The self-selecting nature of Reddit users may lead to a sample that is not representative

of the broader population, as certain demographic groups may be overrepresented or underrepresented.

Future Research

I have analysed 770 posts to explore the relationship between discrimination and burnout, as well as sexual harassment and burnout. Through qualitative analysis, I have already established that these factors are interrelated. To further substantiate these findings and validate them quantitatively, I will conduct a Confirmatory Factor Analysis (CFA), focusing on the factors of burnout, discrimination, and sexual harassment. CFA is a powerful statistical method that will allow us to test whether our qualitative results hold up under quantitative scrutiny by assessing whether the data fits the hypothesized relationships between these constructs. This approach will help us verify if discrimination and sexual harassment contribute significantly to burnout, as suggested by the qualitative evidence, thus providing a more robust, data-driven understanding of these complex interactions.

Once the results are established both qualitatively and quantitatively, the next critical step will be to develop an 'in-time intervention' designed to help nurses to regain their composure and emotional stability after encountering any of the above discussed experiences. The intervention will be immediate, targeted strategies that nurses can apply in the moment or shortly after such incidents to mitigate the negative psychological and emotional impact. The goal is to provide nurses with practical tools and techniques that can help them manage stress, reduce feelings of helplessness, and prevent long-term emotional exhaustion or any impact to mental health.

Another important direction for advancing this research is to focus on identifying the questions that should be added to existing burnout scales to incorporate factors such as different types of discrimination and both verbal and physical sexual harassment. This could be achieved

by enhancing the current scales with targeted questions or by developing a new scale altogether that more comprehensively captures these critical factors.

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APPENDIX: CURRENT BURNOUT SCALES

Figure 1

Maslach Burnout Inventory.

Burnout Self-Test
Maslach Burnout Inventory (MBI)

The Maslach Burnout Inventory (MBI) is the most commonly used tool to self-assess whether you might be at risk of burnout. To determine the risk of burnout, the MBI explores three components: exhaustion, depersonalization and personal achievement. While this tool may be useful, it must not be used as a scientific diagnostic technique, regardless of the results. The objective is simply to make you aware that anyone may be at risk of burnout.

For each question, indicate the score that corresponds to your response. Add up your score for each section and compare your results with the scoring results interpretation at the bottom of this document.

Questions	Never	A few times per year	Once a month	A few times per month	Once a week	A few times per week	Every day
SECTION A	**0**	**1**	**2**	**3**	**4**	**5**	**6**
I feel emotionally drained by my work.							
Working with people all day long requires a great deal of effort.							
I feel like my work is breaking me down.							
I feel frustrated by my work.							
I feel I work too hard at my job.							
It stresses me too much to work in direct contact with people.							
I feel like I'm at the end of my rope.							
Total score – SECTION A							

Questions	Never	A few times per year	Once a month	A few times per month	Once a week	A few times per week	Every day
SECTION B	**0**	**1**	**2**	**3**	**4**	**5**	**6**
I feel I look after certain patients/clients impersonally, as if they are objects.							
I feel tired when I get up in the morning and have to face another day at work.							
I have the impression that my patients/clients make me responsible for some of their problems.							
I am at the end of my patience at the end of my work day.							
I really don't care about what happens to some of my patients/clients.							
I have become more insensitive to people since I've been working.							
I'm afraid that this job is making me uncaring.							
Total score – SECTION B							

Figure 1 (cont'd)

Questions	Never	A few times per year	Once a month	A few times per month	Once a week	A few times per week	Every day
SECTION C	**0**	**1**	**2**	**3**	**4**	**5**	**6**
I accomplish many worthwhile things in this job.							
I feel full of energy.							
I am easily able to understand what my patients/clients feel.							
I look after my patients'/clients' problems very effectively.							
In my work, I handle emotional problems very calmly.							
Through my work, I feel that I have a positive influence on people.							
I am easily able to create a relaxed atmosphere with my patients/clients.							
I feel refreshed when I have been close to my patients/clients at work.							
Total score – SECTION C							

SCORING RESULTS - INTERPRETATION

Section A: Burnout

Burnout (or depressive anxiety syndrome): Testifies to fatigue at the very idea of work, chronic fatigue, trouble sleeping, physical problems. For the MBI, as well as for most authors, "exhaustion would be the key component of the syndrome." Unlike depression, the problems disappear outside work.

- Total 17 or less: Low-level burnout
- Total between 18 and 29 inclusive: Moderate burnout
- Total over 30: High-level burnout

Section B: Depersonalization

"Depersonalization" (or loss of empathy): Rather a "dehumanization" in interpersonal relations. The notion of detachment is excessive, leading to cynicism with negative attitudes with regard to patients or colleagues, feeling of guilt, avoidance of social contacts and withdrawing into oneself. The professional blocks the empathy he can show to his patients and/or colleagues.

- Total 5 or less: Low-level burnout
- Total between 6 and 11 inclusive: Moderate burnout
- Total of 12 and greater: High-level burnout

Section C: Personal Achievement

The reduction of personal achievement: The individual assesses himself negatively, feels he is unable to move the situation forward. This component represents the demotivating effects of a difficult, repetitive situation leading to failure despite efforts. The person begins to doubt his genuine abilities to accomplish things. This aspect is a consequence of the first two.

- Total 33 or less: High-level burnout
- Total between 34 and 39 inclusive: Moderate burnout
- Total greater than 40: Low-level burnout

A high score in the first two sections and a low score in the last section may indicate burnout.

Figure 2

Copenhagen Burnout Inventory.

Copenhagen Burnout Inventory (English version) used in the PUMA study

NB: The questions of the CBI are *not* being printed in the questionnaire in the same order as shown here. In fact, the questions are mixed with questions on other topics. This is recommended in order to avoid stereotyped response patterns.

Part one: Personal burnout

Definition: Personal burnout is a state of prolonged physical and psychological exhaustion.

Questions:

1. How often do you feel tired?
2. How often are you physically exhausted?
3. How often are you emotionally exhausted?
4. How often do you think: "I can't take it anymore"?
5. How often do you feel worn out?
6. How often do you feel weak and susceptible to illness?

Response categories: Always, Often, Sometimes, Seldom, Never/almost never.

Scoring: Always: 100. Often: 75. Sometimes: 50. Seldom: 25. Never/almost never: 0.
Total score on the scale is the average of the scores on the items.

If less than three questions have been answered, the respondent is classified as non-responder.

Part two: Work-related burnout

Definition: Work-related burnout is a state of prolonged physical and psychological exhaustion, which is perceived as related to the person's work.

Questions:

1. Is your work emotionally exhausting?
2. Do you feel burnt out because of your work?
3. Does your work frustrate you?

Figure 2 (cont'd)

4. Do you feel worn out at the end of the working day?

5. Are you exhausted in the morning at the thought of another day at work?

6. Do you feel that every working hour is tiring for you?

7. Do you have enough energy for family and friends during leisure time?

Response categories:

Three first questions: To a very high degree, To a high degree, Somewhat, To a low degree, To a very low degree.

Last four questions: Always, Often, Sometimes, Seldom, Never/almost never. Reversed score for last question.

Scoring as for the first scale. If less than four questions have been answered, the respondent is classified as non-responder.

Part three: Client-related burnout

Definition: Client-related burnout is a state of prolonged physical and psychological exhaustion, which is perceived as related to the person's work with clients*.

***Clients, patients, social service recipients, elderly citizens, or inmates.**

Questions:

1. Do you find it hard to work with clients?

2. Do you find it frustrating to work with clients?

3. Does it drain your energy to work with clients?

4. Do you feel that you give more than you get back when you work with clients?

5. Are you tired of working with clients?

6. Do you sometimes wonder how long you will be able to continue working with clients?

Response categories:

The four first questions: To a very high degree, To a high degree, Somewhat, To a low degree, To a very low degree.

The two last questions: Always, Often, Sometimes, Seldom, Never/almost never.

Scoring as for the first two scales. If less than three questions have been answered, the respondent is classified as non-responder.