The Role of Burnout and Health Beliefs in COVID-19 Vaccine Decisions Among Healthcare Workers: A Large Language Model-Based Text Analysis

Samaneh Omranian, Lu He, AkkeNeel Talsma, Arielle A.J. Scoglio, Susan McRoy, Janet W. Rich-Edwards

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Samaneh Omranian[1, 2]; Lu He[3] PhD; AkkeNeel Talsma[4] PhD, FAAN; Arielle A.J. Scoglio[5, 6] PhD; Susan McRoy[1] PhD; Janet W. Rich-Edwards[2, 6] SCD

[1]College of Engineering and Applied Science University of Wisconsin–Milwaukee Milwaukee US
[2]Brigham and Women's Hospital and Harvard Medical School Harvard University Boston US
[3]College of Publich Health University of Wisconsin–Milwaukee US
[4]School of Nursing University of Wisconsin–Milwaukee Milwaukee US
[5]Department of Natural and Applied Sciences Bentley University Waltham US
[6]T.H. Chan School of Public Health Harvard University Boston US

Corresponding Author:
Samaneh Omranian
College of Engineering and Applied Science
University of Wisconsin–Milwaukee
3200 Cramer St
Milwaukee
US

Abstract

Background: Burnout among healthcare workers affects the well-being and decision making, influencing public health outcomes. Understanding the relationship between burnout, health beliefs and COVID-19 vaccine decisions among healthcare workers is essential for identifying at-risk staff, providing targeted support, and addressing workplace challenges to prevent further escalation of burnout related issues.

Objective: This study examines how burnout, health beliefs, and COVID-19 vaccine decisions among healthcare workers. Building on our previously developed Health Belief Model (HBM) classifier, based on the HBM framework, which explains how individual perceptions of health risks and benefits influence behavior, we focused on key HBM constructs, including the perceived severity of COVID-19, perceived barriers to vaccination, and their relationship to burnout.

Methods: We analyzed open-ended comments from 1,501 vaccine-hesitant nurses using data from the Nurses' Health Study surveys. Finetuning Llama3, an open-source Large Language Model with few-shot prompts, we further categorized these comments into burnout dimensions—Emotional Exhaustion, Depersonalization, and Inefficacy—based on the Maslach Burnout Inventory framework. Leveraging Annotation Guidelines-based Knowledge Augmentation and Reasoning-Aware Self-Consistency.

Results: The model achieved a high weighted accuracy of 92% and an F1 Score of 91% for Depersonalization. Emotional Exhaustion accounted for 52% of comments, correlating strongly with perceived severity (59%) and barriers to vaccination (43%). Demographic analyses revealed significant variations in burnout prevalence, with older age groups reporting greater burnout.

Conclusions: This study highlights the relationship between burnout and vaccine decisions among healthcare workers, uncovering areas for further exploration. By exploring the complex interplay between psychological strain and vaccine hesitancy, this study sets the stage for developing transformative interventions and policies that could redefine workforce resilience and public health strategies.

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Conclusion: This study highlights the relationship between burnout and vaccine decisions among healthcare workers, uncovering areas for further exploration. By exploring the complex interplay between psychological strain and vaccine hesitancy, this study sets the stage for developing transformative interventions and policies that could redefine workforce resilience and public health strategies.

Keywords:

burnout, healthcare, nurses, COVID-19, health beliefs model, Maslach burnout inventory, text classification, LLMs, prompt engineering, Llama, fine-tuning

Introduction

The COVID-19 pandemic has profoundly impacted healthcare workers, intensifying burnout and shaping vaccine-related decisions that are critical to public health outcomes [1]. Burnout, defined by the World Health Organization as a syndrome resulting from unmanaged, chronic workplace stress, has emerged as a pervasive issue among healthcare workers during the pandemic [2]. Symptoms of burnout include mental and physical exhaustion, feelings of detachment or cynicism toward one's job, and a diminished sense of personal accomplishment. These effects not only undermine the well-being of healthcare workers but also impair their ability to provide high-quality patient care and make informed public health decisions.

Vaccination of healthcare workers not only protects this highly exposed group but also helps prevent iatrogenic spread within healthcare settings. Furthermore, as one of the most trusted professions, healthcare workers' opinions and hesitancies can significantly influence public attitudes toward vaccination [3]. At the same time, healthcare workers faced extreme fatigue, stress, and grief as they managed increased workloads, staffing shortages, and limited access to critical protective equipment, all of which heightened anxiety and risks of personal harm [4]. These compounding pressures not only affected overall well-being and trust in healthcare systems but may have also influenced healthcare workers' perceptions and decisions regarding COVID-19 vaccination, reflecting broader concerns about policy-driven decisions and institutional credibility [5].

Efforts to promote COVID-19 vaccination through community engagement and trust-building initiatives often did not fully address healthcare workers' concerns about vaccine mandates, personal autonomy, perceived coercion of incentives, misinformation, and accessibility [6]. These systemic challenges, coupled with the unique stressors faced by healthcare workers, highlight the urgency of addressing both the individual and organizational factors contributing to vaccine hesitancy and burnout.

To better measure and understand the dimensions of burnout, the Maslach Burnout Inventory (MBI) provides a widely recognized framework, evaluating three key aspects: *Emotional Exhaustion, Depersonalization, and Inefficacy* [7]. Previous research has demonstrated that burnout significantly impacts healthcare workers' attitudes toward public health measures, including vaccination, by altering their perceptions of risks and benefits and amplifying systemic mistrust [8], [9].

Moreover, the Total Worker Health Model provides a holistic framework for understanding how occupational stress, including burnout, influences both personal health decisions and overall job performance by integrating strategies for promoting worker well-being and safety [10]. This model serves as a tool to evaluate multiple levels of contextual factors, worker characteristics, and organizational factors and assess potential impacts on both organizational outcomes and worker well-being. In parallel, psychological models such as the Health Belief Model (HBM) offer a lens to examine how individual perceptions influence health behaviors, including vaccination decisions. The HBM identifies key factors such as perceived susceptibility to disease, perceived severity of disease, perceived benefits of action, and perceived barriers to action [11]. For healthcare workers experiencing burnout, these constructs may interact in complex ways, reshaping their decision-making processes and potentially exacerbating vaccine hesitancy [12].

The current study leverages the interplay between the MBI and HBM frameworks to explore how burnout may associate with vaccine decisions among healthcare workers. The study focuses on burnout among nurses specifically, because nurses represent a significant proportion of the healthcare workforce. Recent studies report alarming increases in burnout rates among nurses driven by overwhelming job demands and inadequate support systems [13] [14].

Free-text narratives written by survey respondents contain rich information but are time-consuming to analyze at scale, especially when trying to extract fine-grained, nuanced aspects. The ability of Large Language Models (LLMs) to extract fine-grained insights from complex text data makes them particularly advantageous for studying the multifaceted factors influencing vaccine decisions and burnout. Leveraging LLMs that were-pretrained on massive textual data, we aim to provide a nuanced understanding of the relationships among health beliefs, vaccine hesitancy and burnout. The findings could inform targeted interventions to address burnout and improve vaccine uptake, ultimately supporting healthcare workers and enhancing public health outcomes. The following research questions guided the investigation:

Main Research Question: How does burnout correlate with COVID-19 vaccine decisions among healthcare workers during the pandemic, and how do these correlations vary across demographic factors?

To address this, we break down the main research question into two sub-questions:

Sub-Question 1: How effective are LLMs in automatically identifying burnout symptoms among healthcare workers, based on the MBI framework, within the context of the COVID-19 pandemic?

Sub-Question 2: What is the relationship between specific MBI burnout dimensions (*Emotional Exhaustion*, *Depersonalization*, and *Inefficacy*) and HBM constructs (barriers, severity, and susceptibility) among vaccine-hesitant healthcare workers during the COVID-19 pandemic, and which burnout

dimensions are most strongly associated with each HBM construct?

Sub-Question 3: How do demographic factors (e.g., age, education, region) influence the relationship between burnout dimensions and vaccine hesitancy?

Sub-Question 4: What are the themes of the comments in the intersection of burnout dimensions and the HBM?

Methods

Data Source, Study Design, and Study Participants

This study utilized data from our previous investigation of COVID-19 vaccine hesitancy among participants in the Nurses' Health Study II (NHSII) and Nurses' Health Study 3 (NHS3), conducted in Winter 2021 [15]. These large-scale, longitudinal cohorts include healthcare professionals who provided responses on their COVID-19 vaccination intentions and related beliefs. In the prior study, we identified vaccine-hesitant individuals (VH) based on their responses to the survey question, "Do you plan to receive a COVID-19 vaccine?" Participants who answered "no" or "unsure" (excluding those already vaccinated, intending to get vaccinated, or with missing data) were classified as VH [16]. Of the 4,242 participants who provided at least one open-ended comment in the survey (categorized under "vaccine" or "other"), 1,501 were classified as VH and included in this analysis. We also considered the personal protective equipment (PPE)-related comments of these VH participants because these comments are more likely to be work-related and might be a good source for finding work burnout. The vast majority of survey participants (68%) were not actively working at the time of vaccination, while 32% were actively practicing nurses. This cohort, therefore, represents both actively and formerly practicing nurses, highlighting unique perspectives from both groups regarding their vaccination decisions.

In the prior study, these comments were categorized according to constructs of the HBM utilizing supervised learning: *perceived barriers*, *perceived severity*, *perceived susceptibility*, and a category for non-HBM-related comments. This classification enabled us to analyze the underlying health beliefs associated with vaccine hesitancy. The current study builds upon this framework, linking these HBM categories with burnout dimensions based on the Maslach Burnout Inventory to explore the intersection of psychological factors and health beliefs in vaccine hesitancy.

For a detailed description of the data collection process and the categorization methodology, refer to our previous work [16].

Model Selection and Classification Optimization Strategy

We selected Llama 3 8B for to its open-source advantages and strong balance between computational efficiency and classification accuracy. We fine-tuned this model along while leveraging Annotation Guidelines-based Knowledge Augmentation (AGKA) approach demonstrated in Liu et al [17]. This method

enhances model performance by incorporating detailed label definitions from annotation guidelines and selecting a few representative examples to improve classification accuracy. The combination of fine-tuning, AGKA and structured annotation guidelines, significantly improved the model's classification of burnout dimensions: *Emotional Exhaustion*, *Depersonalization*, and *Inefficacy*. Details of the AGKA prompts are provided in Appendix 1.

To further optimize Llama 3 8B's performance in classifying burnout dimensions, we implemented the Reasoning-Aware Self-Consistency (RASC) framework [18]. RASC uses Chain of Thought prompting to generate multiple reasoning paths, assigning confidence scores based on the strength of each reasoning path. By employing weighted majority voting and halting further sampling when specific criteria are met, RASC improves classification accuracy while optimizing computational resources.

Model Evaluation

In evaluating the model's performance, we followed a three-step process. First, we applied the RASC framework, which helped prioritize high-confidence outputs. Then, we measured the model's performance using metrics of weighted accuracy and F1 Score across the burnout dimensions: *Emotional Exhaustion*, *Depersonalization*, and *Inefficacy*. Lastly, we conducted an error analysis to identify recurring misclassification patterns, particularly those involving ambiguous language or overlapping burnout symptoms.

Results

Effectiveness of LLMs in Identifying Burnout Dimension

To evaluate the effectiveness of Llama 3 in identifying burnout dimensions based on the MBI framework, we assessed classification accuracy for Emotional Exhaustion, Depersonalization, and Inefficacy using a subset of labeled data. Leveraging the RASC framework with AGKA, the model achieved weighted accuracy ranging from 82% to 92% and F1 Scores from 78% to 91% as shown in Table 1. The highest weighted accuracy of 92% and an average F1 Score of 91% was achieved for classifying Depersonalization. Emotional Exhaustion and Inefficacy showed slightly lower accuracies of 84% and 82%, respectively. Our classification revealed that Emotional Exhaustion accounted for 52% of the comments, followed by Depersonalization at 25% and Inefficacy at 11%. This distribution underscores the prominence of Emotional Exhaustion and reflects its strong representation in the dataset.

Burnout Dimension	Precision	Recall	F1-Score	Accuracy
Emotional Exhaustion	0.81	0.88	0.85	0.84
Depersonalization	0.95	0.88	0.91	0.92
Inefficacy	0.99	0.64	0.78	0.82

Table 1. Performance metrics for burnout dimension classification, including Precision, Recall, F1-Score, and Accuracy across Emotional Exhaustion, Depersonalization, and Inefficacy using a subset of data labeled data.

Analysis of Burnout and HBM Construct Intersections

We analyzed the association between specific burnout dimensions and previously categorized HBM constructs: perceived barriers to getting a vaccination, severity of COVID-19, and susceptibility to COVID-19. These associations are visually represented in Figure 1, which illustrates the distribution of burnout dimensions across HBM constructs. Emotional Exhaustion correlated strongly with perceived severity (59%). Additionally, 43% of comments referenced barriers, highlighting both logistical and psychological obstacles to vaccination. Depersonalization was most closely linked to perceived severity of the disease (27%) and perceived susceptibility to the disease (23%). A smaller proportion of those with depersonalization (17%) referenced perceived barriers, indicating a weaker link to barriers to obtaining the vaccine. Inefficacy showed weaker associations overall, with only 14% of comments reflecting perceived severity of COVID-19, 8% referenced perceived susceptibility to the disease, and 7% mentioning perceived barriers to getting vaccinated.

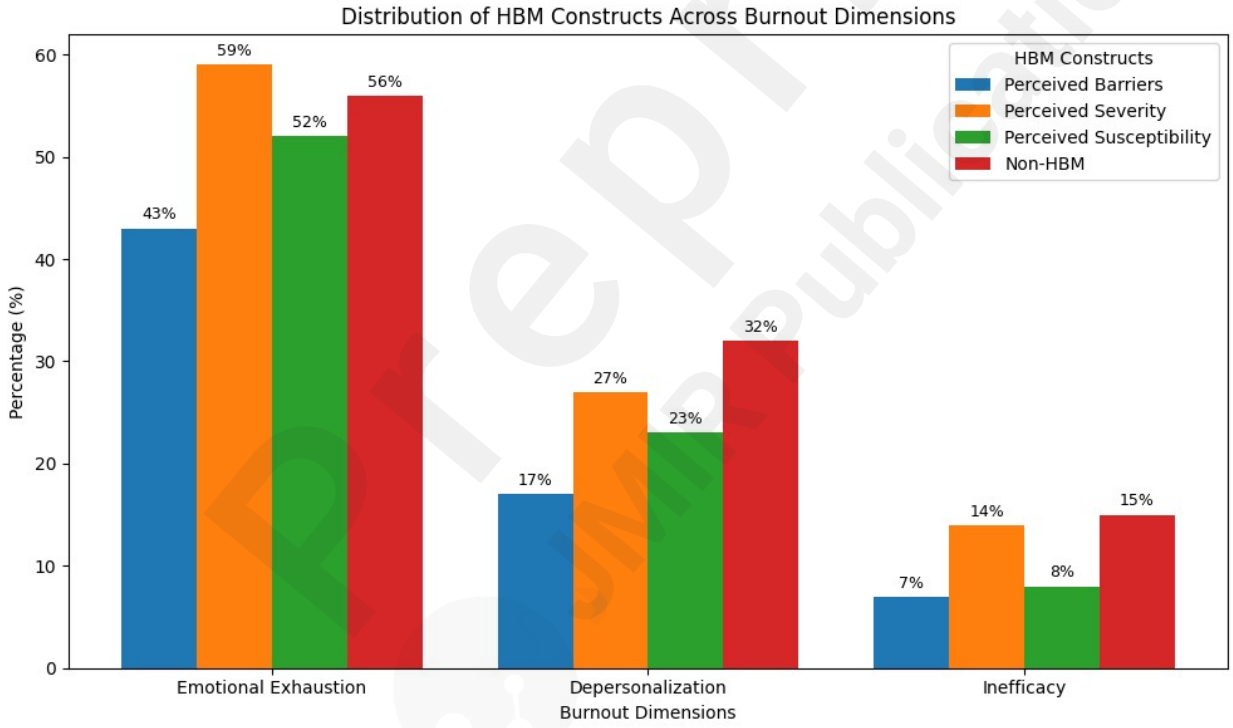

Figure 1. Distribution of HBM constructs across burnout dimensions. Emotional Exhaustion shows higher associations with Perceived Severity (59%) and non-HBM (56%), while Depersonalization and Inefficacy exhibit lower percentages across all constructs.

Demographic Analysis

Further analysis of burnout dimensions by demographic factors revealed significant variations. To examine trends across age groups, we categorized participants into four bins and further assessed the impact of active versus inactive status. Emotional Exhaustion remained consistently high across all groups (≥50%), with the highest prevalence among active nurses under 65 (55%). Interestingly, inactive nurses over 65 reported similar levels (50%), suggesting that work status may not strongly influence this dimension.

In contrast, Depersonalization and Inefficacy showed more variation. Active nurses, particularly those under 65, exhibited significantly higher rates of both compared to their inactive counterparts (29% vs. 24% for Depersonalization; 16% vs. 11% for Inefficacy). Chi-square tests confirmed statistically significant differences across burnout dimensions ($p < 0.001$), particularly for Depersonalization and Inefficacy across age and activity levels. These findings highlight the distinct stressors faced by active nurses and underscore the need for targeted interventions.

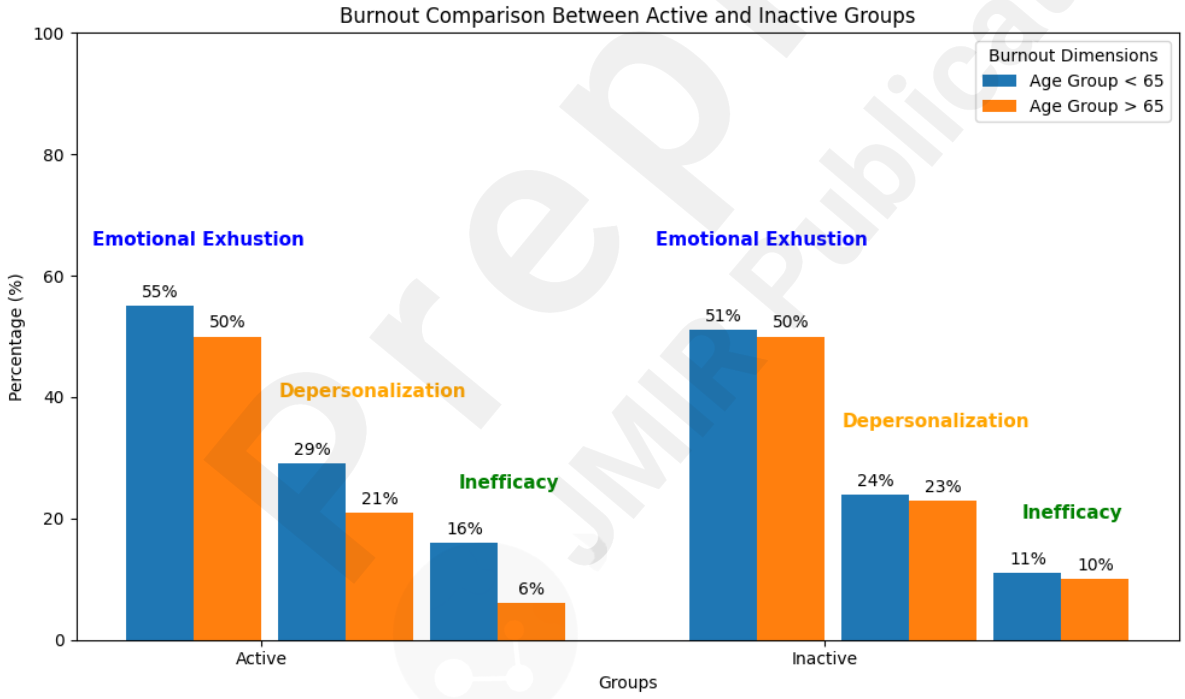

Figure 2. This figure illustrates the prevalence of burnout dimensions among active and inactive nurses, stratified by age group. Emotional Exhaustion remains high across all groups, while Depersonalization and Inefficacy show notable differences, with active nurses under 65 reporting the highest levels.

*3*Regional differences in burnout prevalence were also observed (Figure 4). The Midwest reported the highest total burnout percentage (87%), with Emotional Exhaustion, Inefficacy, and Depersonalization contributing 30%, 29%, and 28%, respectively. The South followed with a total burnout percentage of 80%, while the

Northeast region reported a similar pattern at 71%. The West exhibited a lower total burnout percentage of 59%.

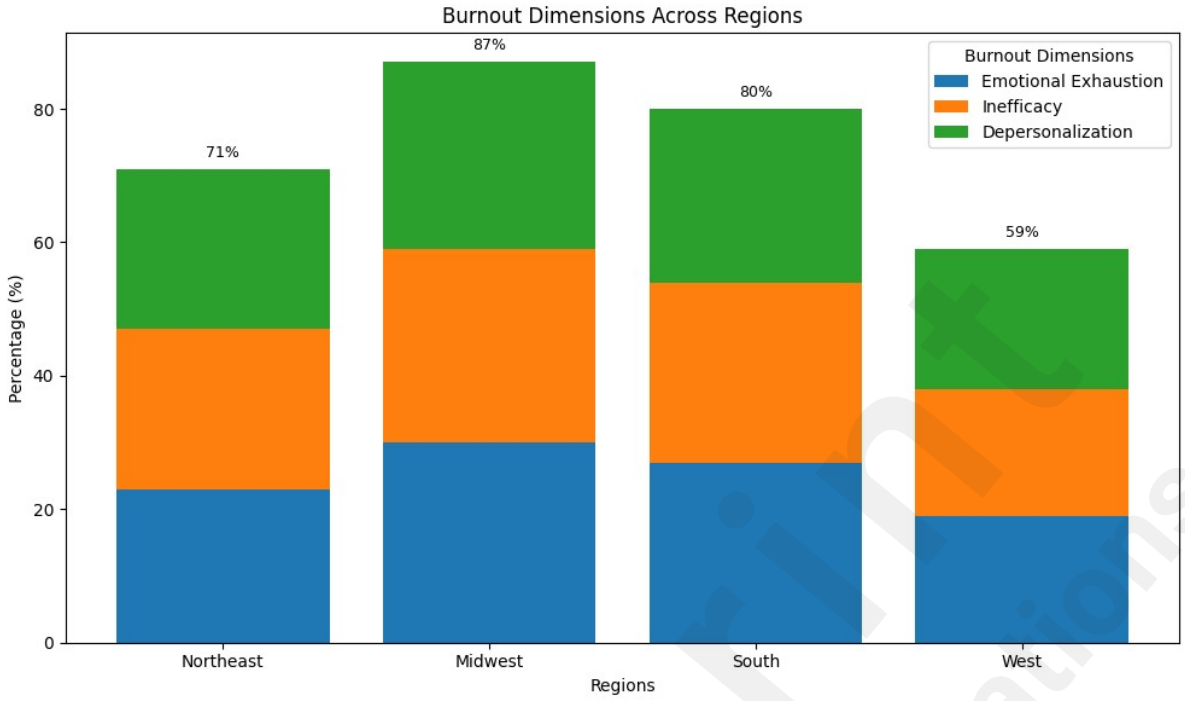

Figure 4. Burnout dimensions across regions. Midwest shows the highest burnout (87%), followed by South (80%) and West (71%).

Key Themes at the Intersection of Burnout and HBM Constructs

To address Sub-Question 3, our thematic analysis identified overlapping concerns at the intersection of burnout dimensions and HBM constructs. Health and safety concerns, including vaccine side effects, efficacy, and misinformation, were dominant among comments highlighting perceived barriers to vaccination. Emotional and psychological strain, characterized by stress, loss, and work-life challenges, further underscored the mental toll of burnout in shaping vaccine hesitancy. In some cases, participants cited low perceived risk due to high COVID-19 recovery rates, which reduced the urgency for vaccination.

Broader themes reflected distrust toward government and political systems, frustrations with systemic obstacles, and the pandemic's impact on social and family dynamics. Faith and resilience were also significant factors, with many participants relying on spiritual beliefs and community support to navigate vaccine-related concerns. These themes illustrate the complex interplay between burnout dimensions and health beliefs, shaping healthcare workers' vaccine decisions.

Error Analysis

Initial attempts to classify burnout dimensions using a multi-class approach faced significant challenges, achieving only 55% accuracy. Misclassified outputs revealed ambiguity and overlapping language, particularly between Emotional Exhaustion and Depersonalization, which frequently co-occurred. For example, comments such as "*Changing expectations & policies at work are frustrating causing burnout. Lack of free speech/ generally one way group think causes burnout feeling. Everyone is tired of the isolation and changes to our social lives*" could be classified as either Emotional Exhaustion or Depersonalization, depending on interpretation. Phrases like "frustration causing burnout" and "everyone is tired of the isolation" suggest fatigue and emotional overwhelm, which align with Emotional Exhaustion. On the other hand, mentions of "lack of free speech" and "one-way group think" could reflect feelings of disconnection or detachment from the work environment, or an insensitive attitude towards colleagues and tasks, aligning more with Depersonalization.

Similarly, the comment "*I was working as an R.N. in the pandemic and eventually developed severe anxiety, panic attacks, and depression and am currently on a leave of absence from work for these reasons*" strongly reflects Emotional Exhaustion, characterized by emotional and psychological depletion. However, the mention of a leave of absence might also suggest withdrawal, potentially overlapping with Depersonalization and contributing to misclassification.

Depersonalization, in particular, showed high precision but low recall. This discrepancy likely stems from the smaller proportion of comments classified under Depersonalization, leading to more cautious predictions for this dimension and reduced sensitivity to identifying all relevant instances.

Discussion

This study examined the role of burnout and health beliefs in shaping COVID-19 vaccine decisions among healthcare workers, offering novel insights through the integration of LLM-based text analysis. By leveraging Llama 3 for categorizing burnout dimensions and analyzing their intersection with Health Belief Model constructs, the findings align with and extend prior research on the psychological and behavioral factors influencing vaccine hesitancy.

Key Findings and Comparisons

The predominance of Emotional Exhaustion (52% of comments) and its strong correlation with perceived severity (59%) and barriers (43%) underscores the critical role of psychological strain in vaccine hesitancy.

These results are consistent with previous studies that link high levels of emotional distress among healthcare workers with increased concerns about vaccine safety and efficacy [19][20][21][22]. Depersonalization, which showed associations with perceived severity (27%) and susceptibility (23%), highlights the psychological detachment experienced by some healthcare workers, reflecting findings by Zhang et al. (2023), who identified significant links between burnout dimensions such as depersonalization and factors influencing job satisfaction and turnover intentions among nurses in high stress settings [23]. In contrast, inefficacy, while less prevalent, aligns with research indicating that feelings of low personal accomplishment may undermine self-efficacy and motivation, thereby dampening proactive health behaviors [24].

Our findings indicate widespread emotional exhaustion across all groups, with at least 50% of both active and inactive nurses reporting high burnout. While we expected active nurses to experience greater burnout due to workplace stress during COVID-19, inactive nurses over 65 exhibited similar levels, suggesting additional contributing factors.

Notably, most inactive nurses in this study were retired, and some reported caregiving responsibilities for spouses, elderly parents, or grandchildren during pandemic-related closures. These stressors, along with the broader emotional toll of the pandemic, may explain their high burnout levels. Given that data collection occurred early in the pandemic and before mandatory vaccination, we cannot conclude that burnout led to early retirement. However, for those nearing retirement (55–65), pandemic-related stress may have influenced workforce decisions. The consistently high emotional exhaustion across groups underscores the long-term psychological burden of healthcare work, warranting further research into post-retirement burnout and its lasting effects.

The interplay between burnout dimensions and vaccine hesitancy highlights significant psychological and contextual barriers to vaccination among healthcare workers. These findings align with prior research, which demonstrates that emotional exhaustion and distrust in systemic structures exacerbate vaccine hesitancy during crises [25] [26]. Addressing such multifaceted concerns requires holistic approaches that consider not only health beliefs but also the broader sociopolitical and personal challenges faced by healthcare workers.

The application of Llama 3 with the Reasoning-Aware Self-Consistency framework demonstrated robust performance in classifying burnout dimensions, achieving high accuracy and F1 scores, particularly for Emotional Exhaustion and Inefficacy. These findings underscore the potential of leveraging domain-specific knowledge and few-shot learning strategies for complex classification tasks, aligning with prior research emphasizing the role of targeted annotation and reasoning-based approaches to improve NLP model outcomes [17][18]. Future studies could explore fine-tuning strategies to address challenges with overlapping burnout dimensions.

Policy Implications and Interventions

The findings of this study also have significant implications for policymakers. Systemic interventions are needed to address organizational stressors contributing to burnout, including manageable working hours, adequate staffing ratios, and improved access to mental health resources tailored to healthcare workers. Transparent communication and inclusive decision-making processes are essential to rebuild trust in healthcare systems and alleviate systemic distrust that influences vaccine hesitancy.

Policymakers should also support the development of monitoring frameworks that use real-time data to identify at-risk healthcare workers. Machine learning-driven tools, such as those leveraging LLMs, could enhance early detection of burnout symptoms through employee feedback systems. Finally, interventions must be culturally sensitive and address the diverse needs of underrepresented healthcare worker populations. These systemic approaches, informed by this study, could improve workforce well-being and public health outcomes by addressing burnout and vaccine hesitancy at their root causes.

Limitations and Future Directions

While this study provides valuable insights, several limitations warrant attention. The reliance on self-reported comments may introduce reporting bias, as participants may underreport or selectively emphasize certain factors influencing their vaccine hesitancy. Additionally, the study's dataset, derived from the Nurses' Health Study cohorts, includes only female registered nurses, with the majority identifying as white. This demographic homogeneity limits the generalizability of the findings to other healthcare professions, genders, and ethnic groups. Furthermore, challenges remain in distinguishing overlapping burnout dimensions which require further refinement in annotation guidelines and modeling strategies.

Future research should explore longitudinal effects of burnout on vaccine-related behaviors and incorporate diverse healthcare worker populations. Efforts should also focus on identifying additional burnout factors not included in the Maslach Burnout Inventory. Additionally, designing a preventive framework or tool to monitor and follow up with healthcare workers for early detection of burnout symptoms could transform interventions. Such tools, integrating real-time machine learning algorithms, could provide tailored interventions to address burnout symptoms before escalation. Expanding the application of LLMs to include multi-task learning and fine-tuning with larger annotated datasets may enhance the understanding of complex psychological constructs and their implications for vaccine decisions.

Conflict of Interest

None declared.

Abbreviations

LLM: Large Language Model

HBM: Health Belief Model

MBI: Maslach Burnout Inventory

NHS: Nurses’ Health Study

VH: vaccine Hesitant

PPE: Personal Protective Equipment

AGKA: Annotation Guidelines-based Knowledge Augmentation

RASC: Reasoning-Aware Self-Consistency

Appendix

Annotation Guidelines-based Knowledge Augmentation (AGKA prompts) with emotional exhaustion prompt = """

Instruction:

Determine if the text below indicates WORK-RELATED EMOTIONAL EXHAUSTION based on the Maslach Burnout Inventory (MBI). Emotional exhaustion refers to feeling mentally and physically drained due to chronic workplace stress, marked by fatigue, frustration, and a sense of being overwhelmed, especially when demands consistently exceed emotional resources.

Based on the definition and examples if the comment reflects WORK-RELATED EMOTIONAL EXHAUSTION, respond with "1"; otherwise, respond with "0".

Examples:

- Comment: "I have been overworking due to staff shortages and am concerned that this will compromise my health. My sleep hours and quality have been fair, not great."

Response: 1

- Comment: "The constant demands of my job leave me feeling drained and unable to find time for myself. It's getting harder to stay motivated."

Response: 1

- Comment: "I'm looking forward to the weekend to relax and recharge after a long week at work."

Response: 0

- Comment: "Lately, I feel like I can't keep up with the workload, and it's affecting my energy levels."

Response: 1

- Comment: "Despite the busy schedule, I still find joy in my daily tasks and interactions."

Response: 0

- Comment: "I often feel exhausted after my shifts and struggle to engage with my family."

Response: 1

- Comment: "Managing my time effectively allows me to maintain a healthy work-life balance."

Response: 0

- Comment: "The relentless pace of work has left me feeling perpetually tired and overwhelmed."

Response: 1

- Comment: "I feel energetic and passionate about my role, even during peak times."
Response: 0
- Comment: "Chronic stress from work has made it difficult for me to recover during my days off."
Response: 1

Input:

Comment: {comment}

Response:

{response}

"""

inefficacy prompt = """
Instruction:
Determine if the following nurse's comment reflects WORK-RELATED REDUCED PERSONAL ACCOMPLISHMENT based on the definition provided. Respond only with "1" for Yes or "0" for No. Do not include any explanations or additional text.
Definition:
A nurse is experiencing WORK-RELATED REDUCED PERSONAL ACCOMPLISHMENT if they express:
- Feelings of ineffectiveness or unproductiveness at work.
- A sense of inadequacy or failure in their role.
- Lack of achievement or doubts about their contributions.
Examples:
- Comment: "I feel like no matter how much effort I put in, nothing I do makes a difference for my patients or my team."
Response: "1"
- Comment: "I am constantly doubting my abilities and feel like I’m falling short of everyone’s expectations at work."
Response: "1"
- Comment: "No matter what I do, I just don't feel like I'm making a meaningful impact."
Response: "1"
- Comment: "I often think that my skills aren't sufficient for the demands of my job."
Response: "1"
- Comment: "There are challenges at work, but I feel like I’m growing and learning every day."

Response: "0"

- Comment: "Sometimes I feel frustrated, but I know my work contributes to the bigger picture."

Response: "0"

- Comment: "I face difficulties at work, but overcoming them makes me feel accomplished."

Response: "0"

- Comment: "Even on tough days, I believe I'm effective in my role."

Response: "0"

Input:

Comment: {comment}

Response: {response}

"""

depersonalization prompt = """

Instruction:

Determine if the text below indicates WORK-RELATED DEPERSONALIZATION based on the Maslach Burnout Inventory (MBI). Depersonalization refers to a sense of emotional distance or detachment from one's work, colleagues, or clients. It is often marked by cynical, impersonal, or indifferent attitudes, where individuals may treat others more like objects than human beings, reflecting a lack of empathy or engagement. Based on the definition and examples, if the comment reflects WORK-RELATED DEPERSONALIZATION, ONLY respond "1"; otherwise, respond with "0".

Examples:

- Comment: "I don't have the energy to care about patients anymore. It's just about getting through the day, not making a connection."

Response: 1

- Comment: "I feel disconnected from my colleagues. I try to avoid interactions as much as possible because I don't see the point."

Response: 1

- Comment: "Sometimes I joke around to lighten the mood, even if it seems a bit cynical."

Response: 0

- Comment: "I feel tired but still care deeply about providing the best for my patients."

Response: 0

- Comment: "Interacting with patients feels like a chore now; I just want to get through my shifts."

Response: 1

- Comment: "I maintain a professional demeanor, even when I'm feeling stressed."

Response: 0

- Comment: "I've started to view my colleagues as obstacles rather than team members."

Response: 1

- Comment: "Despite the workload, I still find joy in helping my patients."
  Response: 0

Input:
Comment: {comment}

Response:
{response}

"""

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