

The Use of Artificial Intelligence to Reduce Provider Burnout

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Background and Clinical Question

Medical provider burnout continues at alarming levels, negatively affecting healthcare professionals and patient care. This crisis stems from factors like excessive administrative tasks, lengthy work hours, and a lack of work-life balance (Patel et al., 2019). The consequences can be severe, including decreased job satisfaction, increased medical errors, and a decline in overall healthcare quality. The purpose of this project is to investigate how artificial intelligence (AI) scribe software can mitigate healthcare provider burnout.

Purpose Statement

The specific goal is to reduce provider burnout as measured by the Maslach Burnout Inventory (MBI) by 20% within 12 months of implementing AI scribe software (Maslach & Leiter, 2021). It will be measurable by the reduction in MBI scores among providers before and after the implementation of AI scribe software. The goal is achievable through the implementation of AI scribe software to automate routine documentation tasks and reduce administrative burdens. The goal is relevant because reducing provider burnout aligns with the organization's goal of improving provider well-being and patient care quality. The goal will be achieved within 12 months of implementing the AI scribe software.

Current Evidence

- The American Medical Association's 2024 report indicates a medical provider burnout rate of 48.2%, a decrease from 53% in 2022 and a peak of 62.8% in 2021 (Nevarez, 2024). Despite the decrease since the end of the pandemic, nearly half of all medical providers experience burnout. Clinicians frequently cite excessive administrative duties as a major workplace concern, encompassing both patient-related and non-patient-related tasks. Because finding meaning in work is a crucial factor in preventing burnout, an increase in administrative tasks can heighten the risk of burnout (Shah et al., 2025). A study of 1,774 providers demonstrated a correlation between increased time spent on administrative tasks and decreased career satisfaction and increased burnout. Respondents reported that administrative tasks hindered their ability to provide high-quality care and maintain focus during patient encounters (Edwards et al., 2018).

Methodology

- Population – medical providers experiencing burnout
- Practice setting - medium to large integrated healthcare system
- How would you ensure protection of the participants? - Informed consent, data protection, and minimal interference with patient-provider relationship.

Cost Analysis

ROI Model Example for AI scribe software – outpatient clinic setting			
Time Saved PPV*	10 minutes PPV		
Increased Patient Volume (in clinic)	5 additional patients per day		
Average Revenue PP			\$150
Reduced Claim Denials	10% reduction		
Average Claim Value			\$150
Improved billing capture	10% of claims		
Average claim increase			\$75
Software Cost Est.	Annually		(\$50,000)
Implementation/Maintenance Cost	Annually		(\$20,000)
Time savings revenue	(see figure a)		\$187,500
Claim reduction revenue	(see figure b)		\$45,000
Billing capture revenue	(see figure c)		\$22,500
ROI	Annually		\$185,000

Design

- The intervention is AI scribe software, added to provider tool kit to enable them to spend more time with patients and less time on charting.
- Implementation will require training in a new piece of technology, along with buy in from providers and participation from patients (for surveys). It will also require a robust IT infrastructure and financial resources for the software purchase.
- The project will be evaluated with an initial MBI survey and patient satisfaction survey. Subsequent provider and patient surveys will be administered at 30-, 60- and 90-day intervals. In addition, EMR metrics for provider performance will be monitored for increased efficiency. Subsequent surveys at the 6-month and 12-month completion date.

Anticipated Results

Upon successful implementation of the AI scribe software, the anticipated results are a significant reduction in medical provider burnout, as measured by a **20% decrease in Maslach Burnout Inventory (MBI) scores within 12 months**. This reduction is expected to stem from the automation of routine documentation tasks, directly lessening the administrative burden that frequently contributes to stress and emotional exhaustion. Consequently, providers will reclaim valuable time, enabling them to focus more intently on direct patient care, fostering stronger patient-provider relationships, and leading to increased job satisfaction. The improved well-being of providers is also anticipated to translate into enhanced quality of care for patients, reduced medical errors, and potentially improved overall efficiency within the healthcare system.

Future Recommendations

Sustaining effectiveness should be relatively easy when providers benefit from the reduction in administrative tasks and the increased time with patients. However, integrating it into the standard practice for patient encounters, maintaining support for uses, and recognizing those that excel with its usage may also help.

Expansion after successful implementation might include integration with Clinical Decision Support (CDS) to provide real time alerts or recommendations to providers during patient encounters, enhancing provider efficiency (Assistant Secretary for Technology Policy, 2025).

Clinical Implications

As providers gain more time due to AI scribes, they can spend more quality time with patients. This increases the trust between the patient and provider, helping to develop strong clinical relationships, maintain continuity of care, and improve patient outcomes over time (Patel et al., 2019).

Conclusion

Numerous factors have placed the healthcare industry in a situation with 50% provider burnout. This leads to decreased job satisfaction, impaired quality of care, and increased healthcare costs. AI-powered scribe software offers a promising solution by automating routine documentation tasks, freeing up providers' time to focus on patient care while reducing their administrative burden. This can lead to a more engaged and motivated workforce, ultimately enhancing patient care outcomes. While the implementation of AI scribe software may involve initial costs and challenges, the long-term benefits, including increased efficiency, reduced burnout, and improved patient outcomes, make it a worthwhile investment (Moore, 2024). By embracing technological advancements and prioritizing the well-being of healthcare providers, we can effectively address the pressing issue of burnout and build a more sustainable and efficient healthcare system.

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