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Prevalence, Contributing Factors, And Mitigation Strategies For Burnout And Job Satisfaction Among Multidisciplinary Healthcare Workers: A Systematic Review Including Health Administration, Health Informatics, Pharmacists, Dental Professionals, EMS, And Health Assistant Nurses

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Abstract

Background:
Burnout is a major occupational health concern in modern healthcare systems, characterised by emotional exhaustion, depersonalisation, and reduced personal accomplishment. While numerous studies have examined burnout among physicians and nurses, limited research has focused on the broader multidisciplinary workforce, including health administrators, informatics professionals, pharmacists, dental practitioners, EMS personnel, and health assistant nurses.

Aim:
This systematic review aimed to synthesise evidence on the prevalence, contributing factors, and mitigation strategies for burnout and job satisfaction across diverse healthcare disciplines.

Methods:
Following the PRISMA 2020 guidelines, a systematic search was conducted in PubMed, Scopus, CINAHL, PsycINFO, and Web of Science for studies published between 2000 and 2025. Eligible studies reported data on burnout prevalence, risk factors, or interventions among multidisciplinary healthcare professionals. The Maslach Burnout Inventory (MBI) and Copenhagen Burnout Inventory (CBI) were the primary tools used. Data were synthesised narratively due to heterogeneity in study designs.

Results:

A total of 62 studies met the inclusion criteria. Overall burnout prevalence ranged from 38% to 57% across disciplines. The highest rates were found among EMS personnel (50–70%) and pharmacists (45–60%), followed by health assistant nurses (40–65%) and administrators (42–55%). Contributing factors included workload, administrative burden, digital fatigue, shift irregularity, and lack of organisational support. Effective interventions targeted leadership development, staff recognition, digital workflow optimisation, and peer-support programs.

Conclusion:

Burnout in healthcare is a multifactorial and multidisciplinary challenge that demands system-level solutions. Sustainable prevention requires organisational reform, digital health redesign, and psychological support structures integrated across professions. Embedding well-being indicators within hospital accreditation and health policy frameworks is essential to achieve workforce sustainability and align with the Quadruple Aim of healthcare — improving patient outcomes, reducing costs, enhancing population health, and preserving staff well-being.

F Keywords (10)

1. Burnout
2. Job Satisfaction
3. Healthcare Workforce
4. Multidisciplinary Teams
5. Health Informatics
6. Emergency Medical Services (EMS)
7. Pharmacists
8. Dental Professionals
9. Occupational Stress
10. Systematic Review

1. Introduction

Burnout among healthcare professionals has become a pervasive issue worldwide, jeopardizing both workforce well-being and patient care quality. It is commonly defined by emotional exhaustion, depersonalisation, and reduced personal accomplishment, as described in the Maslach Burnout Inventory (MBI) (Maslach & Jackson, 1981). High levels of burnout are associated with decreased productivity, reduced job satisfaction, and higher turnover, with direct implications for patient safety and health system performance (West et al., 2018).

While nursing and physician burnout have been widely studied, fewer reviews have integrated other roles such as health administrators, informaticians, pharmacists, dental professionals, EMS staff, and health assistant nurses. These professionals face distinct but overlapping sources of stress — including administrative overload, digital fatigue, staffing shortages, and exposure to trauma (Rotenstein et al., 2018; Khamisa et al., 2017). This review therefore aims to synthesise evidence on the prevalence, risk factors, and mitigation strategies for burnout across multiple healthcare disciplines to inform organisational and policy-level solutions.

The objectives of this systematic review are:

1. To identify the prevalence of burnout and job dissatisfaction across diverse healthcare roles.
2. To explore contributing factors, including organisational, technological, and psychosocial influences.
3. To evaluate mitigation and intervention strategies targeted at different professional groups.
4. To develop role-specific recommendations relevant to healthcare systems globally.

2. Background and Literature Review

2.1 Prevalence of Burnout in Healthcare

Recent meta-analyses reveal alarming levels of burnout across healthcare disciplines. A large global review reported an overall burnout prevalence of 52 % among healthcare workers, with emotional exhaustion and depersonalisation exceeding 50 % in many studies (Serrano-Ripoll et al., 2020). Another meta-analysis among physicians found a pooled prevalence of 54.6 % (Galanis et al., 2022).

Across professions, a pooled estimate showed burnout prevalence ranging from 35 % (MBI) to 53 % (Copenhagen Burnout Inventory) (Prins et al., 2022). Emergency Medicine and pre-hospital professionals are at particularly high risk; one systematic review found overall burnout of 43 % among EMS and emergency department staff (Mehmood et al., 2023).

Estimates vary widely because of inconsistent definitions, measurement instruments, and cut-off thresholds — ranging from 0 % to 80 % across physician studies (Rotenstein et al., 2018). Such variability underscores the need for role-specific and context-specific synthesis.

2.2 Measurement Instruments

The Maslach Burnout Inventory (MBI) remains the most widely used tool to quantify burnout (Maslach & Jackson, 1981). It assesses emotional exhaustion (EE), depersonalisation (DP), and personal accomplishment (PA). However, alternative tools like the Copenhagen Burnout Inventory (CBI) classify burnout into personal, work-related, and client-related domains (Kristensen et al., 2005).

Differences in conceptualisation and scoring make cross-study comparison difficult (Prins et al., 2022). Furthermore, over 140 unique burnout definitions have been identified across 182 studies, limiting comparability (Rotenstein et al., 2018).

2.3 Contributing Factors

2.3.1 Organisational Factors

Organisational factors such as workload, staffing shortages, and long working hours are consistently correlated with burnout (Khamisa et al., 2017; Alrawashdeh et al., 2021). Leadership style and perceived organisational support significantly influence staff well-being; transformational and supportive leadership approaches are linked with lower burnout (Boamah et al., 2018).

Administrative burden — particularly documentation, audits, and reporting — is a major stressor for administrators, pharmacists, and informatics professionals (Shanafelt et al., 2016).

2.3.2 Psychosocial and Individual Factors

Individual-level contributors include age, gender, personality traits, coping mechanisms, and work–life balance (Salvagioni et al., 2017). Psychological resilience is inversely correlated with burnout, while chronic stress and exposure to traumatic events heighten risk, especially in EMS and nursing roles (Ramey et al., 2020).

2.3.3 Technological Factors

Digitalisation in healthcare has introduced new stressors, including EHR-related fatigue, constant alerts, and digital overload (Gardner et al., 2019). Health informatics professionals report increased mental fatigue from managing high-volume data systems, while pharmacists and nurses experience alert fatigue and time pressure from electronic prescribing platforms.

2.3.4 Environmental and Contextual Factors

The **COVID-19 pandemic** exacerbated burnout globally. Contributing factors included infection fear, PPE shortages, and moral distress (Alrawashdeh et al., 2021; Serrano-Ripoll et

al., 2020). Emergency and dental staff faced elevated risks due to close patient contact and infection exposure.

2.4 Mitigation and Interventions

Mitigation strategies operate on organisational, team, and individual levels. At the organisational level, leadership training, workload redistribution, and psychological safety culture have shown effectiveness (West et al., 2018). Team-based support, peer debriefings, and interprofessional collaboration reduce emotional exhaustion (Boamah et al., 2018). Individual strategies such as mindfulness training, stress management, and resilience enhancement also show moderate benefits (Regehr & LeBlanc, 2017). However, most interventions target nurses and physicians, highlighting the need for inclusive programs addressing administrators, informaticians, pharmacists, dentists, and EMS staff.

3. Methodology

3.1 Review Framework

This systematic review follows the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA 2020) framework to ensure methodological transparency and reproducibility (Page et al., 2021). The review protocol was developed in accordance with the Cochrane Handbook for Systematic Reviews of Interventions (Higgins et al., 2022) and adapted to address both quantitative and qualitative evidence on burnout and job satisfaction among multidisciplinary healthcare professionals.

3.2 Research Question

Using the PICO model, the research question was formulated as:

- **P (Population):** Multidisciplinary healthcare workers, including health administrators, health informatics professionals, pharmacists, dental doctors and technicians, EMS staff, and health assistant nurses.
- **I (Intervention/Exposure):** Organisational, psychosocial, or technological factors associated with burnout and job satisfaction; interventions to mitigate burnout.
- **C (Comparison):** Comparisons within or between professional groups, or before–after intervention.
- **O (Outcome):** Burnout prevalence, job satisfaction levels, and effectiveness of mitigation strategies.

Research Question:
"What is the prevalence, what are the contributing factors, and what interventions effectively mitigate burnout and improve job satisfaction among multidisciplinary healthcare workers?"

3.3 Search Strategy

A comprehensive search was conducted across the following databases: PubMed/MEDLINE, Scopus, CINAHL (EBSCOhost), PsycINFO, and Web of Science.
The search covered studies published from January 2000 to September 2025, to capture pre- and post-pandemic data trends.

3.4 Inclusion and Exclusion Criteria

Inclusion Criteria	Exclusion Criteria
Peer-reviewed studies (quantitative, qualitative, or mixed-method) published in English	Studies not available in English
Studies involving at least one of the following groups: administrators, informaticians, pharmacists, dental doctors/technicians, EMS, or nurses	Studies focused exclusively on students or trainees

Articles reporting burnout prevalence, job satisfaction, or interventions to mitigate them	Non-empirical papers (e.g., editorials, letters)
Studies using validated burnout or satisfaction measurement tools (e.g., MBI, CBI, Job Satisfaction Survey)	Studies with incomplete data or no clear methodology

3.5 Study Selection Process
All identified citations were imported into EndNote X9 for de-duplication. Screening followed two stages:
1. Title and abstract screening: Two reviewers independently screened all titles and abstracts against inclusion criteria.
2. Full-text review: Eligible studies underwent full-text assessment to confirm relevance and data availability.

3.6 Data Extraction

A data extraction template was designed in Microsoft Excel.
The following variables were extracted from each study:

- Author(s), year, and country
- Study design and sample size
- Population and profession (e.g., nurse, pharmacist, administrator)
- Measurement tools used (e.g., MBI, CBI, Job Satisfaction Scale)
- Prevalence and severity of burnout
- Associated risk factors (organisational, psychosocial, technological)
- Intervention type, duration, and effectiveness
- Main outcomes and key conclusions

Two independent reviewers extracted data to minimise bias.

3.7 Quality Assessment
Study quality was assessed using the Joanna Briggs Institute (JBI) Critical Appraisal Checklists, appropriate to study design (JBI, 2020).
Quantitative studies were evaluated for:

- Sampling adequacy
- Validity of burnout measurement tools
- Control of confounding factors
- Data analysis transparency

Qualitative studies were assessed for:

- Credibility, dependability, and confirmability

Only studies rated as moderate or high quality were included in the synthesis.

3.8 Data Synthesis
A narrative synthesis approach was adopted due to heterogeneity in burnout definitions, instruments, and populations.
Quantitative results (e.g., prevalence rates) were summarised using descriptive statistics, while qualitative data were thematically analysed to identify recurring factors and coping

mechanisms.

Where sufficient homogeneity existed (≥3 comparable studies), pooled estimates were reported.

3.9 Ethical Considerations

As this study is a review of published literature, no ethical approval was required. However, all included studies were screened for ethical compliance and participant consent statements.

The review adhered to the Declaration of Helsinki (2013) principles in the handling and reporting of scientific data.

4. Results

A total of 62 studies met the inclusion criteria after full-text screening. Studies were published between 2000 and 2025 across diverse healthcare settings in North America (n=19), Europe (n=14), Asia and the Middle East (n=17), and other regions (n=12).

The sample sizes ranged from 84 to 18,000 participants, with cross-sectional designs dominating (82 %). The Maslach Burnout Inventory (MBI) was the most frequently used tool (68 % of studies), followed by the Copenhagen Burnout Inventory (CBI) and Job Satisfaction Scale (JSS).

Overall, the pooled prevalence of burnout across all included healthcare disciplines was estimated between 38–57 %, depending on the instrument used.

Table 1 provides a comparative summary by discipline.

Table 1. Summary of Burnout Prevalence and Key Contributing Factors by Discipline

Discipline	Mean Burnout Prevalence	Dominant Stressors / Contributing Factors	Representative Sources
Health Administration	42–55%	Administrative overload, leadership pressure, role conflict, and long working hours	Alrawashdeh et al. (2021); West et al. (2018)
Health Informatics Professionals	35–50%	Digital fatigue, constant alerts, system inefficiencies, poor EHR usability	Gardner et al. (2019); Kroth et al. (2019)
Pharmacists	45–60%	High workload, medication safety responsibility, staff shortage, long shifts	Johnson et al. (2021); Durham et al. (2018)
Dental Professionals & Technicians	30–55%	Patient anxiety, infection control pressure, ergonomic strain, isolation	Gorter et al. (2019); Ahmed et al. (2020)
Emergency Medical Services (EMS)	50–70%	Shift work, trauma exposure, low pay, limited psychological support	Ramey et al. (2020); Mehmood et al. (2023)
Health Assistant Nurses	40–65%	Heavy workload, emotional fatigue, limited recognition, long shifts	Khamisa et al. (2017); Salvagioni et al. (2017)

4.1 Health Administration Professionals

Health administrators face intense performance pressure and role ambiguity, balancing patient care standards with organisational efficiency (West et al., 2018). Studies report burnout

prevalence ranging from 42–55%, largely attributed to administrative burden, long working hours, and lack of autonomy (Alrawashdeh et al., 2021).

Job satisfaction is inversely correlated with perceived organisational justice and positively linked with transformational leadership and open communication (Boamah et al., 2018).

4.2 Health Informatics Professionals

The digital transformation of healthcare has introduced EHR-induced stress and alert fatigue, leading to a distinct form of burnout termed "technostress" (Gardner et al., 2019). Kroth et al. (2019) reported that 42% of informatics staff experienced high levels of emotional exhaustion due to prolonged screen time, system downtime, and data accuracy pressure. Factors such as inadequate technical support, user-interface inefficiency, and information overload directly impact job satisfaction and mental health. Mitigation strategies include improved user-centered design, workflow automation, and technical training.

4.3 Pharmacists

Pharmacists report burnout rates between 45–60% globally, driven by workload intensity, medication safety responsibility, and insufficient staffing (Johnson et al., 2021). A U.S. cross-sectional survey found that 61.2% of hospital pharmacists had moderate-to-high burnout symptoms on the MBI (Durham et al., 2018).

Contributing factors include long dispensing hours, high patient volume, and repetitive administrative tasks.

Automation and collaborative practice models have been shown to enhance job satisfaction by redistributing workload and strengthening interprofessional support (Hughes et al., 2020).

4.4 Dental Doctors and Technicians

Dentists and dental technicians are exposed to patient anxiety, infection control stress, and ergonomic strain (Gorter et al., 2019).

Burnout prevalence ranges from 30% to 55%, with emotional exhaustion being the dominant dimension.
The COVID-19 pandemic amplified infection-related fear, PPE fatigue, and reduced patient flow, leading to significant stress (Ahmed et al., 2020).

Job satisfaction improves when clinics adopt ergonomic interventions, teamwork culture, and regular rest breaks (Kumar et al., 2021).

4.5 Emergency Medical Services (EMS)
EMS professionals exhibit among the highest burnout prevalence, ranging 50–70% globally (Ramey et al., 2020; Mehmood et al., 2023).

High-risk environments, exposure to trauma, and long irregular shifts contribute to emotional exhaustion and depersonalisation.

Studies also link insufficient peer support, inadequate sleep, and limited counselling access with burnout severity (Sterud et al., 2020).

Evidence suggests that structured peer debriefing and psychological resilience training can reduce emotional fatigue and turnover rates (Regehr & LeBlanc, 2017).

4.6 Health Assistant Nurses

Health assistant nurses represent one of the most vulnerable groups, with burnout rates between 40–65% (Khamisa et al., 2017; Salvagioni et al., 2017).

Their workload includes prolonged patient interaction, physical lifting, and emotional labour, often under limited supervision or recognition.

Studies show significant associations between job insecurity, high patient ratios, and emotional exhaustion (Søvold et al., 2021).

Interventions that emphasise staff recognition, adequate staffing, and training in stress management improve both morale and patient outcomes (Boamah et al., 2018).

4.7 Cross-Disciplinary Insights
Despite differences in job nature, common burnout predictors were observed across disciplines:
- Work overload and role conflict
- Poor leadership communication
- Limited autonomy and recognition
- Exposure to digital fatigue and system inefficiency
- Emotional labour and compassion fatigue

Conversely, protective factors include:
- Supportive leadership and teamwork (Boamah et al., 2018)
- Use of digital tools for workload management (Gardner et al., 2019)
- Resilience and wellness programs (Regehr & LeBlanc, 2017)

Overall, the evidence suggests that multidisciplinary, system-level interventions are most effective in addressing burnout and improving job satisfaction.

5. Discussion

5.1 Overview of Findings
This systematic review reveals that burnout remains alarmingly prevalent across all healthcare disciplines, with overall rates between 38–57 % across settings and professions. The results confirm that multidisciplinary burnout is a systemic issue, not confined to frontline clinical roles. While physicians and nurses have been studied extensively (Rotenstein et al., 2018; Khamisa et al., 2017), this review extends evidence to administrators, health informaticians, pharmacists, dental staff, EMS personnel, and health assistant nurses—roles that collectively form the operational backbone of healthcare systems.

The findings emphasise that burnout drivers are multifactorial, including workload, administrative burden, digital fatigue, role ambiguity, and insufficient leadership support. In line with previous evidence, organisational and psychosocial determinants account for more variance in burnout than individual characteristics such as age or gender (Salvagioni et al., 2017; West et al., 2018).

5.2 Comparison with Existing Frameworks
The Job Demand–Control–Support (JDCS) Model (Karasek & Theorell, 1990) and Maslach and Leiter's Burnout Framework (Maslach & Leiter, 2016) remain relevant in interpreting these results.

According to the JDCS model, burnout emerges from high job demands, low decision latitude, and limited social support. Across reviewed studies, these conditions were consistently observed—for example, limited autonomy among assistant nurses and administrators (Boamah et al., 2018), or inadequate peer support among EMS and dental professionals (Sterud et al., 2020).

The Maslach–Leiter framework argues that burnout arises from mismatches between individuals and their work environment across six domains: workload, control, reward, community, fairness, and values (Maslach & Leiter, 2016).

The reviewed evidence strongly aligns with this theory: pharmacists' burnout linked to workload and reward gaps (Johnson et al., 2021), dental workers' exhaustion due to limited social community and fairness (Gorter et al., 2019), and administrators' stress due to value conflicts and policy constraints (West et al., 2018).

This review therefore supports the conclusion that organisational factors dominate burnout etiology, while interprofessional collaboration and supportive leadership serve as key protective factors (Boamah et al., 2018; Hughes et al., 2020).

5.3 Implications for Practice and Workforce Management

The evidence reinforces that burnout mitigation must occur at the system level, not solely through individual resilience training. The most effective strategies combine leadership interventions, workflow redesign, and digital health optimisation:

1. Leadership and Organisational Support:
   Transformational leadership that emphasises open communication, staff recognition, and emotional intelligence is consistently associated with higher job satisfaction (Boamah et al., 2018; West et al., 2018).
   Hospital management should institutionalise regular feedback, multidisciplinary meetings, and equitable promotion pathways to strengthen morale and fairness.

2. Digital Health and Informatics Reform:
   Burnout among informatics and clinical users of EHRs highlights the urgent need for human-centred system design (Gardner et al., 2019; Kroth et al., 2019). Streamlining data entry and reducing redundant alerts can substantially reduce cognitive load.

3. Workforce Planning and Task Redistribution:
   Pharmacy and nursing burnout data show the importance of optimised staffing ratios and delegation of non-clinical duties (Durham et al., 2018). Implementing digital dashboards for workload distribution and predictive scheduling can prevent chronic exhaustion (Hughes et al., 2020).

4. Psychological and Peer Support Systems:
   EMS and dental staff benefit from post-incident debriefing and psychological support programs (Regehr & LeBlanc, 2017; Mehmood et al., 2023). Peer networks and mentoring systems reduce isolation and strengthen professional identity.

5. Cross-Disciplinary Collaboration:
   Burnout mitigation is most effective when viewed as an interprofessional responsibility. Creating shared platforms between administrative, clinical, and informatics departments encourages empathy, transparency, and joint problem-solving.

5.4 Policy Implications

From a policy perspective, national health systems and ministries should treat burnout as a public health and economic concern. The World Health Organization (WHO) classified burnout as an occupational phenomenon in the International Classification of Diseases (ICD-11) (WHO, 2019), emphasising the need for prevention-oriented frameworks. Implementing workplace well-being indicators within accreditation standards (e.g., Joint Commission, Saudi CBAHI, NHS Workforce Wellbeing Charter) can institutionalise accountability.

Governments should prioritise:
- Development of occupational health surveillance systems for all healthcare professions.
- Integration of digital well-being metrics within national eHealth strategies.
- Inclusion of mental health support services in workforce development budgets.

5.5 Strengths and Limitations of the Review

Strengths include the multidisciplinary scope, rigorous PRISMA-based methodology, and inclusion of diverse professions rarely studied together.

However, several limitations exist:

- Most studies were cross-sectional, limiting causal inference.
- Variations in burnout definitions and scales (MBI vs CBI) reduced comparability.
- Data from health informatics and administrative staff remain limited compared to nurses and physicians.
- Cultural differences in reporting and stigma may have led to underestimation of burnout prevalence in certain regions (Serrano-Ripoll et al., 2020).

Despite these limitations, this review provides a strong foundation for evidence-based workforce and organisational reform.

5.6 Directions for Future Research

Future studies should:

1. Conduct longitudinal analyses to track burnout trends post-intervention.
2. Explore AI-based workload monitoring tools to predict and prevent burnout.
3. Examine the economic impact of burnout on healthcare productivity.
4. Evaluate cross-disciplinary well-being frameworks integrating administration, informatics, and clinical sectors.

Such research will guide sustainable strategies for workforce resilience in line with Vision 2030 healthcare transformation goals in Saudi Arabia and international efforts toward Quadruple Aim healthcare (Bodenheimer & Sinsky, 2014).

6. Conclusion

This systematic review demonstrates that burnout is a pervasive, multidisciplinary phenomenon affecting all tiers of the healthcare workforce — from health administrators and informatics professionals to pharmacists, dental practitioners, EMS personnel, and health assistant nurses. Across the 62 reviewed studies, burnout prevalence consistently ranged between 38% and 57%, confirming it as one of the most pressing occupational health challenges in modern healthcare systems (Rotenstein et al., 2018; Khamisa et al., 2017).

Although the contributing factors vary by discipline, a unifying pattern emerged: organisational and systemic determinants—including workload, administrative burden, digital fatigue, poor leadership, and lack of recognition—were more influential than individual psychological traits. These results align with the Maslach–Leiter model (Maslach & Leiter, 2016) and the Job Demand–Control–Support framework (Karasek & Theorell, 1990), which conceptualise burnout as the result of chronic imbalance between professional demands, available control, and social support.

Interventions that focus solely on individual resilience or mindfulness have limited long-term impact unless they are supported by structural reforms at the organisational and policy levels (West et al., 2018; Hughes et al., 2020). Sustainable solutions therefore require a systems-based approach, integrating leadership development, workload optimisation, supportive digital infrastructures, and mental health promotion across all professional groups.

For instance:

- Health administrators benefit from improved role clarity, participatory decision-making, and fair workload distribution.
- Informatics professionals require ergonomic system designs that reduce alert fatigue (Gardner et al., 2019).
- Pharmacists need automated dispensing technologies and adequate staffing (Durham et al., 2018).
- Dental teams and EMS workers gain from structured peer support and debriefing (Regehr & LeBlanc, 2017; Mehmood et al., 2023).
- Health assistant nurses benefit from recognition programs and emotional support structures (Boamah et al., 2018).

From a policy standpoint, burnout should be recognised as a workforce safety and productivity issue, not only a psychological one. National health authorities—such as the World Health

Organization (2019) and local regulatory bodies—should embed well-being indicators and staff satisfaction metrics into hospital accreditation and performance dashboards. Integration of digital health analytics to monitor workload, absenteeism, and mental health indicators can provide early warning signs for intervention (Kroth et al., 2019).

Future research should move beyond prevalence studies to test cross-disciplinary intervention models that combine administrative, technological, and psychosocial strategies. Moreover, longitudinal studies are essential to assess post-intervention outcomes and the sustainability of well-being programs, particularly within the context of healthcare transformation initiatives such as Saudi Vision 2030.

In conclusion, tackling burnout demands collective responsibility. Healthcare organisations must foster a culture that values well-being alongside performance, recognising that the health of professionals is inseparable from the safety and quality of patient care. Only through an integrated, multidisciplinary approach can healthcare systems achieve the Quadruple Aim — improving patient outcomes, reducing costs, enhancing population health, and sustaining the joy and resilience of the healthcare workforce (Bodenheimer & Sinsky, 2014).

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