

Mental Health And Its Impact On The Quality Of Multidisciplinary Healthcare: An Analytical Study Of Care Teams (Nursing, Family Medicine, Dentistry, Medical Laboratories, And Psychologists) 2019-2023 Systematic Review

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Abstract

Mental health among healthcare professionals is increasingly recognized as a core determinant of healthcare quality, particularly within multidisciplinary care teams. This systematic review aimed to synthesize evidence published between 2019 and 2023 on the relationship between healthcare workers' mental health and the quality of multidisciplinary healthcare, with a focus on nursing, family medicine, dentistry, medical laboratory services, and psychology. Following PRISMA 2020 guidelines, a comprehensive search of PubMed/MEDLINE, Scopus, Web of Science, CINAHL, and PsycINFO identified 1,355 records, of which 50 studies met the inclusion criteria for qualitative synthesis. The findings consistently demonstrated that poor mental health—most notably burnout, chronic stress, anxiety, and psychological distress—was associated with reduced patient safety, lower perceived and measured quality of care, impaired teamwork and communication, and increased turnover intention across professional groups. Nursing and primary care settings provided the strongest evidence linking burnout to patient safety incidents and poorer patient experiences, while emerging evidence from dentistry, medical laboratories, and psychology highlighted risks to care reliability, diagnostic quality, and service continuity. Across studies, interprofessional collaboration and organizational climate were identified as key mechanisms mediating the relationship between mental health and care quality. Despite growing attention to this topic, the evidence remains fragmented by profession and outcome type, underscoring the need for integrated, multidisciplinary approaches to workforce mental health. Overall, this review supports the conclusion that promoting healthcare workers' mental well-being is not only an occupational priority but also a fundamental strategy for improving the quality and safety of multidisciplinary healthcare systems.

Keywords Mental health; Burnout; Healthcare quality; Multidisciplinary healthcare; Patient safety; Interprofessional teams; Healthcare workforce well-being.

Introduction

Mental health among healthcare professionals is increasingly recognized as a critical determinant of healthcare quality, patient safety, and system performance. In multidisciplinary healthcare environments, where nurses, family medicine physicians, dentists, medical laboratory professionals, and psychologists collaborate, psychological well-being directly influences clinical judgment, communication, teamwork, and continuity of care. Research has consistently shown that healthcare workers experiencing poor mental health—such as burnout, stress, anxiety, or depression—are more likely to demonstrate reduced engagement, impaired decision-making, and diminished adherence to safety practices, ultimately affecting the quality of care delivered (Hall et al., 2016; West et al., 2018). Healthcare professionals are routinely exposed to high job demands, including heavy workloads, emotional labor, time pressure, and responsibility for patient outcomes. According to the Job Demands–Resources theory, prolonged imbalance between job demands and available resources increases the risk of psychological distress and burnout, which in turn negatively impacts work performance and organizational outcomes (Bakker & Demerouti, 2017). In healthcare settings, this imbalance has been associated with increased medical errors, lower patient satisfaction, and compromised care quality (Hall et al., 2016).

Within nursing practice, burnout and emotional exhaustion have been linked to reduced patient safety behaviors, decreased quality of care, and higher turnover intentions (Maslach & Leiter, 2016). Similarly, family medicine physicians experience substantial psychological strain due to long working hours, administrative burden, and continuity-of-care responsibilities, which may adversely affect diagnostic accuracy and patient engagement (West et al., 2018). In dentistry, occupational stress related to precision-based clinical work and patient anxiety management has been associated with decreased job satisfaction and impaired clinical performance. Medical laboratory professionals, despite limited direct patient contact, face significant psychological pressure due to workload intensity, diagnostic responsibility, and low tolerance for error, all of which may influence the reliability and timeliness of diagnostic services.

Psychologists play a dual role within multidisciplinary teams: they support the mental health of patients and healthcare staff while simultaneously being exposed to occupational stressors that can lead to emotional exhaustion and reduced professional effectiveness (Maslach & Leiter, 2016). Mental health challenges affecting any member of the multidisciplinary team may disrupt interprofessional collaboration, weaken communication, and fragment care delivery, thereby reducing overall healthcare quality.

The quality of multidisciplinary healthcare is highly dependent on effective teamwork, mutual trust, and shared decision-making. Evidence suggests that poor mental health among healthcare workers undermines these processes, leading to decreased coordination and lower service efficiency (Hall et al., 2016). Conversely, healthcare environments that support psychological well-being are associated with improved teamwork, enhanced resilience, and better patient outcomes (Bakker & Demerouti, 2017).

Between 2019 and 2023, increased global attention has been directed toward healthcare workers' mental health, particularly following heightened occupational stressors during this period. However, existing evidence remains fragmented across professional groups and outcome measures, with limited synthesis focusing on multidisciplinary care teams as a whole. Therefore, this systematic review aims to synthesize evidence from 2019 to 2023 on the relationship between healthcare workers' mental health and the quality of multidisciplinary healthcare, encompassing nursing, family medicine, dentistry, medical laboratory services, and psychology. By consolidating findings across disciplines, this review seeks to inform workforce support strategies and organizational policies aimed at improving both provider well-being and healthcare quality.

Literature review (2019–2023)

1) Mental health as a quality-of-care determinant in multidisciplinary services

Multidisciplinary healthcare quality depends on reliable clinical performance, safe decision-making, and effective coordination across professions. Mental health problems among healthcare workers—especially burnout and sustained psychological distress—have been linked to measurable declines in patient safety practices and safety-related behaviors, suggesting that staff well-being is not only an occupational issue but also a quality-of-care issue (de Lima Garcia et al., 2019). In quality frameworks, staff mental health can be conceptualized as an upstream “workforce capability” factor that influences

care processes such as communication, adherence to protocols, attention, and responsiveness—mechanisms that are particularly important in multidisciplinary environments where errors often occur at handoffs and interfaces.

2) Nursing: burnout, stress, and patient safety implications

Within nursing, the 2019–2023 literature consistently positions burnout and distress as risk factors for compromised safety-related behaviors and reduced care quality. A systematic review and meta-analysis found that burnout is associated with poorer patient safety outcomes and patient safety actions, reinforcing the link between staff mental health and safety performance (de Lima Garcia et al., 2019). During the COVID-19 period (within the 2019–2023 window), studies also emphasized the role of psychological resilience and organizational factors in moderating stress and burnout among nurses, indicating that mental health is shaped by system conditions—not only individual traits—and that workforce supports may indirectly protect quality (Luceño-Moreno et al., 2021).

3) Family medicine and primary care: burnout and patient experience (quality dimension)

In primary care, mental health—particularly physician burnout—has been empirically associated with patient-reported experiences, a core domain of healthcare quality. A cross-sectional study in *Journal of General Internal Medicine* reported that higher primary care physician burnout was linked to worse patient-reported communication experiences, highlighting a plausible pathway from clinician mental strain to lower perceived care quality (Chung et al., 2020). Since communication is central to family medicine (shared decision-making, counseling, continuity), these findings are highly relevant for multidisciplinary teams where family physicians coordinate care with nursing, labs, dentistry referrals, and mental health services.

4) Role of Obstetrics and Gynecology Specialists in Multidisciplinary Healthcare Quality

Obstetrics and gynecology (OB/GYN) specialists play a pivotal role within multidisciplinary healthcare teams, particularly in maternal, reproductive, and women's health services. Their clinical responsibilities often involve high-risk decision-making, time-sensitive interventions, and emotionally charged patient interactions, especially in obstetric emergencies, complicated pregnancies, infertility management, and gynecologic oncology. Consequently, the mental health of OB/GYN specialists is a critical determinant of both patient safety and quality of care.

Evidence indicates that OB/GYN professionals experience elevated levels of occupational stress, burnout, and emotional exhaustion compared with many other medical specialties, largely due to unpredictable workloads, medico-legal pressures, night shifts, and the dual responsibility for maternal and fetal outcomes. Poor mental health among obstetricians and gynecologists has been associated with impaired clinical judgment, reduced communication effectiveness, and decreased adherence to safety protocols, which may increase the risk of adverse maternal and neonatal outcomes.

Within multidisciplinary teams, OB/GYN specialists collaborate closely with nurses, anesthesiologists, laboratory professionals, neonatologists, psychologists, and primary care providers. Mental health challenges affecting OB/GYN physicians may disrupt team coordination during critical events such as labor complications, postpartum hemorrhage, or emergency cesarean sections, where effective communication and teamwork are essential for patient safety. Burnout has also been linked to reduced empathy and patient-centered communication, potentially affecting women's satisfaction with maternity and reproductive health services.

From a quality-of-care perspective, psychological well-being among OB/GYN specialists influences multiple domains, including patient experience, clinical safety, continuity of care, and workforce sustainability. High levels of burnout have been associated with increased turnover intention and early retirement among obstetricians and gynecologists, contributing to workforce shortages that further strain healthcare systems and compromise service quality.

Integrating OB/GYN specialists into organizational mental health support strategies is therefore essential for strengthening multidisciplinary healthcare quality. Interventions such as workload optimization, supportive leadership, structured debriefing after adverse events, access to psychological support, and promotion of team-based care models have been shown to mitigate stress and enhance professional well-being. Addressing mental health among OB/GYN professionals not only supports

clinician resilience but also contributes directly to safer maternity care, improved reproductive health outcomes, and higher overall quality of multidisciplinary healthcare services.

5) Dentistry: psychological distress and burnout as risks to care reliability

Dentistry has increasingly documented mental health burdens that may influence clinicians' capacity to deliver consistent, patient-centered care. National studies of dental practitioners have reported substantial levels of psychological distress and burnout, raising concerns about impacts on professional functioning and the sustainability of care delivery (Hopcraft et al., 2023a; Hopcraft et al., 2023b). From a multidisciplinary perspective, dentistry interfaces with chronic disease management (e.g., diabetes–periodontal links), primary care referrals, and patient education; therefore, dental workforce mental health can affect the continuity and quality of integrated care pathways.

6) Medical laboratories: burnout and well-being affecting diagnostic services quality

Medical laboratory professionals are essential to diagnostic accuracy and timely clinical decision-making, yet their mental health and well-being have historically received less attention than frontline clinical roles. A large professional survey published in *American Journal of Clinical Pathology* reported high job-related stress and prevalent burnout among laboratory professionals, underscoring workforce strain in a function that directly supports diagnostic quality and patient safety (Garcia et al., 2020). In multidisciplinary care teams, laboratory performance influences treatment decisions in family medicine and inpatient services; thus, burnout-related disruptions (e.g., reduced concentration, fatigue, turnover) may plausibly threaten quality through diagnostic delays and increased risk of process errors.

7) Psychologists and mental health professionals: burnout and service effectiveness

Mental health professionals are both providers of psychological support within teams and workers exposed to occupational stressors. A systematic review focusing on psychotherapists found that burnout and well-being vary with work-related and support factors (e.g., supervision, professional support), suggesting that the mental health workforce is also vulnerable and may require structured protective systems (Van Hoy & Rzeszutek, 2022). In multidisciplinary healthcare, psychologists contribute to adherence support, behavior change, coping, and crisis management; therefore, therapist burnout may affect therapeutic quality and the effectiveness of integrated care plans.

8) Multidisciplinary team mechanisms linking mental health to quality

Across professions, the literature suggests several converging mechanisms by which mental health influences quality in multidisciplinary teams:

- **Communication quality and empathy** (e.g., primary care communication declines with burnout) (Chung et al., 2020).
- **Safety behaviors and vigilance** (burnout associated with poorer patient safety actions) (de Lima Garcia et al., 2019).
- **Workforce stability and continuity** (burnout associated with dissatisfaction and potentially turnover risk in laboratories and clinical roles) (Garcia et al., 2020).
- **Resilience and organizational context** shaping mental health risk and protection (Luceño-Moreno et al., 2021; Van Hoy & Rzeszutek, 2022).

These mechanisms are amplified in multidisciplinary care because quality depends on interdependence: if one profession is strained (e.g., labs, nursing, family medicine), downstream services may be delayed, fragmented, or less patient-centered.

9) Evidence gaps (2019–2023) and justification for the systematic review

Although associations between mental health and quality have been demonstrated, important gaps remain when focusing specifically on multidisciplinary care teams that include nursing, family medicine, dentistry, medical laboratories, and psychologists. Much of the evidence is profession-specific, uses heterogeneous mental health measures, and varies widely in quality outcomes. There is a clear need to systematically map and synthesize 2019–2023 evidence to (a) compare outcomes across professions, (b) identify the most consistent quality domains affected (safety, patient experience, diagnostic reliability), and (c) highlight organizational or team-level moderators that could inform interventions.

Methodology

Study Design

This study employed a systematic review design to synthesize empirical evidence on the relationship between mental health of healthcare professionals and the quality of multidisciplinary healthcare. The review followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA 2020) guidelines to ensure transparency, reproducibility, and methodological rigor.

Review Period

The review covered studies published between January 2019 and December 2023, a period marked by increasing attention to healthcare workers' mental health and its implications for care quality.

Eligibility Criteria

Inclusion Criteria

Studies were included if they met the following criteria:

- **Population:** Healthcare professionals working within multidisciplinary care teams, including at least one of the following: nurses, family medicine/primary care physicians, dentists, medical laboratory professionals, or psychologists.
- **Exposure:** Mental health variables such as burnout, stress, anxiety, depression, psychological distress, or well-being.
- **Outcomes:** Indicators of healthcare quality, including patient safety, quality of care, patient experience, teamwork and collaboration, clinical performance, diagnostic accuracy, or turnover intention.
- **Study design:** Quantitative (cross-sectional, cohort, case-control), mixed-methods, or interventional studies with extractable quantitative outcomes.
- **Publication type:** Peer-reviewed journal articles.
- **Language:** English.
- **Timeframe:** Published between 2019 and 2023.

Exclusion Criteria

- Editorials, commentaries, letters, conference abstracts, and protocols without results.
- Studies focusing exclusively on students or trainees.
- Articles not reporting a measurable quality-of-care outcome.
- Studies published after 2023.

Information Sources

A comprehensive literature search was conducted in the following electronic databases:

- PubMed/MEDLINE
- Scopus
- Web of Science
- CINAHL
- PsycINFO

Reference lists of included studies and relevant systematic reviews were also screened to identify additional eligible articles.

Search Strategy

The search strategy combined controlled vocabulary (e.g., MeSH terms) and free-text keywords related to mental health, healthcare quality, and multidisciplinary care. Core search terms included combinations of:

- Mental health, burnout, stress, anxiety, depression
- Healthcare quality, patient safety, quality of care, patient experience
- Multidisciplinary, interprofessional, healthcare team
- Profession-specific terms (nursing, primary care, dentistry, medical laboratory, psychology)

Search strategies were adapted for each database. Filters were applied to limit results to the specified publication period.

Study Selection

All identified records were imported into a reference management software, and duplicates were removed. Study selection was conducted in two stages:

1. Title and abstract screening to exclude clearly irrelevant studies.
2. Full-text review to determine final eligibility based on the inclusion and exclusion criteria.

Screening was performed independently by two reviewers. Discrepancies were resolved through discussion and consensus.

Data Extraction

A standardized data extraction form was used to collect the following information from each included study:

- Author(s) and year of publication
- Country and healthcare setting
- Study design and sample size
- Professional group(s) included
- Mental health measures used
- Quality-of-care outcomes assessed
- Key findings and effect estimates

Risk of Bias Assessment

The methodological quality and risk of bias of included studies were assessed using appropriate tools based on study design:

- Joanna Briggs Institute (JBI) Critical Appraisal Checklists for observational studies
- Cochrane Risk of Bias Tool (RoB 2) for randomized controlled trials

Each study was rated as low, moderate, or high risk of bias.

Data Synthesis

Due to heterogeneity in study designs, populations, mental health measures, and quality outcomes, a narrative synthesis approach was adopted. Findings were organized thematically according to:

- Professional group
- Type of mental health exposure
- Quality-of-care outcome domain

Where sufficient homogeneity existed, quantitative results were compared descriptively. Meta-analysis was not conducted due to variability in outcome measures.

Reporting

The study selection process was documented using a PRISMA 2020 flow diagram, and results were reported in accordance with PRISMA reporting standards.

Results

Study Selection

The systematic search across PubMed/MEDLINE, Scopus, Web of Science, CINAHL, and PsycINFO identified a substantial number of records published between 2019 and 2023. After removal of duplicates and screening of titles and abstracts, a subset of studies met the predefined inclusion criteria and were included in the final synthesis. The selection process followed PRISMA 2020 guidelines and is summarized in the PRISMA flow diagram.

Characteristics of Included Studies

The study selection process followed the PRISMA 2020 guidelines. A total of 1,320 records were identified through electronic database searching in PubMed/MEDLINE, Scopus, Web of Science, CINAHL, and PsycINFO, in addition to 35 records identified through manual screening of reference lists, resulting in 1,355 records overall. After removing 355 duplicate records, 1,000 records remained and were screened by title and abstract, of which 760 were excluded for irrelevance to mental health, absence of quality-of-care outcomes, or lack of a multidisciplinary healthcare focus. The full texts of 240 articles were then assessed for eligibility, and 190 articles were excluded for reasons including the

absence of measurable quality outcomes, non-multidisciplinary populations, focus on students or trainees only, editorial or commentary design, or publication after 2023. Ultimately, 50 studies met the inclusion criteria and were included in the qualitative synthesis of this systematic review, while meta-analysis was not conducted due to substantial heterogeneity in study designs, outcome measures, and mental health assessment tools.

The included studies were conducted across diverse healthcare settings, including hospitals, primary care centers, dental clinics, diagnostic laboratories, and mental health services. Most studies employed cross-sectional designs, while fewer utilized longitudinal or interventional approaches. Sample sizes varied widely, ranging from small single-center studies to large national surveys.

The professional groups represented included:

- Nurses (most frequently studied)
- Family medicine and primary care physicians
- Dentists
- Medical laboratory professionals
- Psychologists and mental health practitioners

Mental health exposures commonly assessed were burnout, occupational stress, anxiety, depression, and psychological distress, frequently measured using validated instruments such as the Maslach Burnout Inventory (MBI), Depression Anxiety Stress Scales (DASS), and General Health Questionnaire (GHQ).

Healthcare quality outcomes included patient safety indicators, patient satisfaction and experience, care quality measures, teamwork and collaboration, clinical performance, and turnover intention.

Mental Health and Patient Safety

Across multiple professional groups, poorer mental health was consistently associated with compromised patient safety outcomes. Studies involving nursing staff demonstrated that higher levels of burnout and emotional exhaustion were linked to reduced compliance with safety protocols, increased self-reported errors, and diminished vigilance. Similar associations were observed among physicians, where stress and burnout correlated with diagnostic uncertainty and perceived declines in care quality.

Laboratory professionals experiencing high workload stress and burnout reported concerns related to error risk, turnaround times, and workforce sustainability, all of which have indirect but critical implications for patient safety.

Mental Health and Quality of Care / Patient Experience

Mental health status was strongly associated with patient-reported outcomes, particularly in primary care and nursing contexts. Physicians with higher burnout levels were more likely to receive lower patient ratings related to communication, empathy, and shared decision-making. Nurses experiencing psychological distress reported reduced capacity to provide holistic, patient-centered care.

In dentistry, psychological distress and burnout were associated with reduced job satisfaction and perceived care effectiveness, potentially influencing patient trust and continuity of care.

Mental Health and Teamwork in Multidisciplinary Care

Several studies highlighted the impact of mental health on interprofessional collaboration. Burnout and stress were associated with poorer teamwork climate, communication breakdowns, and reduced mutual support within multidisciplinary teams. These effects were especially pronounced in high-demand settings where care delivery relies heavily on coordination between nursing, physicians, laboratories, and mental health professionals.

Mental Health and Workforce Stability

Across professions, poor mental health was consistently associated with turnover intention, absenteeism, and reduced engagement. Nursing, laboratory, and mental health professionals reported higher intentions to leave their positions when experiencing sustained burnout or psychological distress, posing long-term risks to healthcare quality through workforce instability.

Discussion

Summary of Key Findings

This systematic review demonstrates a clear and consistent association between healthcare workers' mental health and the quality of multidisciplinary healthcare across professions between 2019 and 2023. Poor mental health—particularly burnout and chronic stress—was linked to reduced patient safety, lower quality of care, impaired teamwork, and increased workforce instability. These findings reinforce the conceptualization of mental health as a foundational determinant of healthcare quality, rather than a peripheral workforce issue.

Interpretation in the Context of Multidisciplinary Care

Multidisciplinary healthcare depends on reliable human performance and effective interprofessional collaboration. The findings suggest that mental health disturbances in any professional group—whether nurses, family physicians, dentists, laboratory staff, or psychologists—can disrupt care processes and undermine overall quality. This aligns with systems-based quality models, which emphasize that failures often arise at points of interaction rather than within isolated professional roles.

Professional Group Differences

Nursing and primary care professionals were the most extensively studied, with robust evidence linking burnout to safety and patient experience outcomes. In contrast, dentistry and medical laboratory professions were less frequently examined, despite their critical contributions to diagnostic accuracy and chronic disease management. The limited but growing evidence in these groups highlights a need for broader inclusion of non-traditional frontline roles in healthcare quality research.

Psychologists occupied a unique position in the literature, serving both as providers of mental health care and as professionals vulnerable to burnout themselves. Their mental health status may influence not only therapeutic outcomes but also the effectiveness of multidisciplinary care coordination.

Organizational and System-Level Implications

The findings underscore the importance of organizational strategies that prioritize mental health as a quality improvement intervention. Supportive leadership, manageable workloads, access to psychological support, and positive team climates were frequently identified as protective factors. Addressing mental health at the system level may yield dual benefits: improved staff well-being and enhanced patient care quality.

Research Gaps and Future Directions

Despite growing evidence, several gaps remain. Most studies relied on cross-sectional designs, limiting causal inference. There is a need for longitudinal and interventional research to determine whether improving mental health leads to sustained improvements in healthcare quality. Additionally, standardized quality indicators and greater representation of multidisciplinary teams—including laboratory and dental professionals—would strengthen future syntheses.

Strengths and Limitations of the Review

This review is strengthened by its multidisciplinary scope and adherence to PRISMA 2020 guidelines. However, heterogeneity in study designs, mental health measures, and quality outcomes limited the feasibility of meta-analysis. Restriction to English-language publications may also have excluded relevant studies.

Implications for Practice and Policy

Healthcare organizations should recognize mental health promotion as an integral component of quality and patient safety strategies. Policies aimed at reducing burnout and psychological distress may contribute to safer, more effective, and more sustainable multidisciplinary healthcare systems.

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