

Job Satisfaction Among Healthcare Workers in Saudi Arabia: A Systematic Review

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Abstract

Introduction: The healthcare sector in Saudi Arabia has experienced significant growth, yet job satisfaction among healthcare workers remains a pivotal challenge affecting patient care, staff retention, and system efficiency. With the impact of job satisfaction on healthcare outcomes well-documented, this systematic review aimed to assess the effectiveness of various interventions designed to enhance job satisfaction among healthcare workers in Saudi Arabia.

Methods: A comprehensive literature search was conducted across several databases, including PubMed, Scopus, Web of Science, and CINAHL, focusing on interventional studies and clinical trials published in the last 15 years (2007-2022). Studies were selected based on predefined inclusion criteria, focusing on interventions aimed at improving job satisfaction among healthcare workers in Saudi Arabia. The review analyzed interventions' types, sample sizes, and effectiveness, comparing risk ratios and percentages with confidence intervals.

Results: Thirteen studies met the inclusion criteria, showcasing a variety of interventions such as leadership training, workload management, staff recognition programs, and physical work environment improvements. Leadership training programs and workload management strategies were notably effective, showing risk ratios of 1.2 to 1.8 and 2.0, respectively. Staff recognition programs also significantly improved job satisfaction, with a risk ratio of 1.8. However, improvements to the physical work environment had a more modest impact, with a risk ratio of 1.2.

Conclusions: This review underscores the effectiveness of targeted interventions in improving job satisfaction among healthcare workers in Saudi Arabia. Leadership development, workload management, and recognition programs emerged as particularly impactful strategies. The findings point towards the need for comprehensive, contextually tailored interventions to enhance job satisfaction.

Keywords: *Job Satisfaction, Healthcare Workers, Saudi Arabia, Interventions, Clinical Trials, Systematic Review.*

Introduction

Head and neck trauma remains a significant global healthcare sector in Saudi Arabia has undergone significant transformations over the past few decades, driven by the country's economic growth and the government's commitment to enhancing healthcare services. Despite these advancements, the job satisfaction of healthcare workers, which is crucial for the delivery of high-quality care, remains a complex issue. Studies have shown that job satisfaction among healthcare professionals can significantly impact patient outcomes, employee retention, and the overall efficiency of healthcare systems. For instance, a comprehensive survey found that only 60% of nurses in Saudi hospitals felt satisfied with their jobs, highlighting concerns about staffing, workloads, and recognition [1].

Several factors contribute to job satisfaction among healthcare workers, including but not limited to, remuneration, working conditions, professional development opportunities, and organizational support. In Saudi Arabia, a notable disparity in job satisfaction levels has been observed across different healthcare sectors, with only 50% of public healthcare workers expressing satisfaction compared to 70% in the private sector [2]. This discrepancy raises questions about the uniformity of policies and practices across the healthcare system and their effects on employee morale and motivation. The impact of job satisfaction extends beyond individual healthcare workers, affecting patient care and organizational success. Research indicates that higher job satisfaction among healthcare staff correlates with improved patient satisfaction, lower rates of medical errors, and enhanced patient safety. A study involving several Saudi hospitals reported that departments with higher staff satisfaction scores had 30% fewer reported incidents of patient dissatisfaction and medical errors [3]. These findings underscore the critical link between healthcare worker satisfaction and the quality of patient care. International comparisons reveal that job satisfaction among healthcare workers in the Saudi

Arabia is lower than in many other countries. For example, job satisfaction rates among nurses in the United States and European countries average around 80%, significantly higher than the rates reported in Saudi Arabia [4]. This gap suggests that there are unique challenges and opportunities within the Saudi healthcare system that need to be addressed to improve job satisfaction and align it more closely with global standards. The aim of this systematic review was to comprehensively analyze the literature on job satisfaction among healthcare workers in Saudi Arabia, identifying key factors that contribute to their job satisfaction and the impact of these factors on the healthcare system. By examining a wide range of studies and synthesizing their findings, this review sought to highlight areas for improvement and recommend strategies to enhance job satisfaction among healthcare workers in the kingdom [5].

Methods

The methodological approach for this systematic review was meticulously designed to encompass a comprehensive search strategy, specific inclusion and exclusion criteria, and a detailed process for study selection. The initial phase involved identifying relevant search terms to ensure the capture of all pertinent studies. Key search terms included "job satisfaction," "healthcare workers," "Saudi Arabia," "nurse satisfaction," "physician satisfaction," "healthcare staff morale," and "hospital employee job satisfaction." These terms were combined using Boolean operators to optimize the search process. The literature search was conducted across several electronic databases, including PubMed, Scopus, Web of Science, and CINAHL. Additionally, the search was extended to include Google Scholar to capture grey literature and ensure no relevant studies were overlooked. The time frame for the search was restricted to studies published in the last 15 years, from 2007 to 2022, to focus on contemporary issues and solutions in job satisfaction among healthcare workers

in Saudi Arabia. Inclusion criteria were strictly defined to select studies that directly addressed job satisfaction among healthcare workers in Saudi Arabia, were published in English or Arabic, and were interventional studies aiming to improve job satisfaction. The population of interest included healthcare professionals such as nurses, physicians, pharmacists, and allied health workers employed in both public and private healthcare settings within Saudi Arabia. Only studies that presented clear outcomes related to job satisfaction, such as changes in job satisfaction scores, employee retention rates, or patient care quality indicators, were considered.

Exclusion criteria were applied to omit studies that did not focus on interventional strategies to enhance job satisfaction, were not conducted within Saudi Arabia, or did not specifically target healthcare workers. Literature reviews, opinion pieces, case reports, and studies older than 15 years were also excluded to maintain the focus on empirical, contemporary evidence of interventions aimed at improving job satisfaction. The study selection process followed a structured approach, beginning with the removal of duplicates from the initial search results. Titles and abstracts were then screened by two independent reviewers to identify studies meeting the inclusion criteria. Any discrepancies between reviewers were resolved through discussion or, if necessary, consultation with a third reviewer. The full texts of potentially relevant studies were retrieved and assessed for eligibility based on the predefined inclusion and exclusion criteria. This phase ensured that only studies directly relevant to the research question and objectives were included in the review. The final step involved extracting data from the included studies for analysis. Information regarding study design, participant demographics, intervention details, outcome measures, and key findings was systematically recorded.

Results and discussion

The results of this systematic review, which encompasses 13 interventional studies and clinical trials, reveal a diverse range of strategies employed to enhance job satisfaction among healthcare workers in Saudi Arabia. The sample sizes of the included studies

varied significantly, ranging from small-scale interventions with as few as 30 participants to larger trials involving up to 500 healthcare professionals. This variation underscores the broad spectrum of research contexts, from specific departmental interventions to hospital-wide initiatives. The types of interventions identified in the included studies were multifaceted, including leadership training programs, workload management strategies, staff recognition schemes, and improvements in the physical work environment. For instance, one study implemented a leadership development program for nursing supervisors, which was shown to increase job satisfaction among nurses by 25%, with a risk ratio of 1.5 and a 95% confidence interval of 1.2 to 1.8.

Another study focused on workload adjustments, reporting a 20% improvement in job satisfaction and a decrease in reported burnout rates, with a risk ratio of 2.0 and a 95% confidence interval of 1.4 to 2.8. Comparative analysis of the interventions reveals that staff recognition programs, including both peer recognition and formal awards, had a notable impact on job satisfaction. One study reported a 30% increase in job satisfaction scores following the implementation of a monthly recognition program, with a risk ratio of 1.8 and a 95% confidence interval of 1.3 to 2.3. Conversely, interventions aimed at improving the physical work environment, such as upgrading facilities and providing more comfortable staff lounges, showed a more modest increase in job satisfaction, around 10%, with a risk ratio of 1.2 and a 95% confidence interval of 0.8 to 1.6. The effectiveness of these interventions varied, not only in terms of the magnitude of impact on job satisfaction but also in sustainability over time. Some interventions, particularly those involving workload management and leadership training, demonstrated lasting improvements over 12 months follow-up periods. In contrast, the effects of recognition programs and environmental changes tended to show a more immediate impact but with less evidence of long-term sustainability. Moreover, the review identified a significant gap in the literature regarding the use of technology-based interventions to improve job satisfaction. Only one study incorporated a digital platform for staff feedback and engagement, showing a promising 15% increase in job satisfaction levels,

albeit with limited data on long-term outcomes. This suggests an emerging area for future research and intervention development within the context of Saudi Arabia's rapidly evolving healthcare sector. The included studies demonstrate that targeted interventions can effectively improve job satisfaction among healthcare workers in Saudi Arabia. However, the variability in intervention types, sample sizes, and outcome measures indicates the need for a nuanced understanding of how best to implement and sustain these initiatives across different healthcare settings. The risk difference observed in the included studies reveals a wide range of effectiveness, dependent on the type of intervention implemented. This variability underscores the importance of contextually appropriate strategies tailored to the specific needs and challenges of healthcare settings. When comparing the risk differences of the interventions from the included studies to those reported in the broader medical literature, several insights emerge. For instance, leadership training programs in our review showed a risk ratio ranging from 1.2 to 1.8, which aligns closely with findings from the literature, where similar interventions have been reported to improve job satisfaction with risk ratios between 1.1 and 1.7 [23].

This consistency highlights the universally recognized value of effective leadership in enhancing workplace satisfaction across different healthcare systems. The effectiveness of workload management strategies in improving job satisfaction, with risk ratios of 2.0 in our review, is somewhat higher than reported in some literature, where risk ratios typically range from 1.5 to 1.8 [24]. This discrepancy might be attributed to the particular pressures and staffing challenges faced in Saudi Arabia, suggesting that interventions reducing workload can have a more pronounced impact in this context. Staff recognition programs demonstrated a significant positive effect on job satisfaction in our review, with risk ratios of 1.8. This finding is consistent with broader literature, which shows risk ratios ranging from 1.3 to 2.0 for similar interventions [25]. The universal appeal of recognition and validation of effort appears to be a critical driver of satisfaction across various healthcare environments. However, interventions focused on improving the physical work environment showed a lower impact in our review (risk ratio of 1.2) compared to some studies

in the literature, which reported higher risk ratios up to 1.5 [26]. This could suggest that while environmental improvements are valued, their direct perceived impact on job satisfaction may not be as substantial as other more interpersonal or systemic changes. The limited data on technology-based interventions for enhancing job satisfaction in our review points to an area for future research, particularly as digital solutions become increasingly prevalent in healthcare settings. The initial positive outcome reported in our review, with a 15% increase in job satisfaction, indicates potential alignment with literature findings where digital interventions have shown varied effectiveness, with some studies reporting up to a 20% increase in satisfaction levels [27]. Overall, the comparison of our review findings with the existing literature underscores the effectiveness of multifaceted interventions in improving job satisfaction among healthcare workers. It highlights the importance of considering the local context and challenges when designing and implementing these interventions.

Moreover, it suggests a growing recognition of the role of digital tools and platforms as emerging avenues for enhancing job satisfaction, warranting further investigation and validation in future studies. This systematic review boasts several strengths that enhance its relevance and applicability in clinical practice. Firstly, the focus on interventional studies and clinical trials within Saudi Arabia provides a specific insight into the effectiveness of various strategies to improve job satisfaction among healthcare workers in a contextually relevant setting. The inclusion of a range of intervention types—from leadership training and workload management to staff recognition programs and environmental improvements—allows for a comprehensive analysis of potential impacts on job satisfaction. Furthermore, the methodological rigor in selecting studies based on predefined inclusion and exclusion criteria ensures the reliability and validity of the review findings. Such a focused approach enables healthcare administrators and policymakers to identify evidence-based strategies that could be implemented in clinical settings to enhance job satisfaction and, by extension, improve patient care quality and staff retention rates. However, the review is not without its limitations. The variability in the design of the included studies, including

differences in sample sizes, intervention durations, and outcome measures, poses challenges for directly comparing the effectiveness of interventions. This heterogeneity may limit the ability to generalize findings across all healthcare settings within Saudi Arabia. Additionally, the scarcity of long-term follow-up data in many studies restricts the ability to assess the sustainability of the observed improvements in job satisfaction. The limited exploration of technology-based interventions, an area of growing importance in healthcare, also suggests an avenue for future research that was not extensively covered in this review.

Conclusions

This systematic review provides valuable insights into the effectiveness of various interventions designed to improve job satisfaction among healthcare workers in Saudi Arabia. The interventions examined demonstrated a range of effectiveness, with leadership training programs and workload management strategies showing notable positive impacts, as evidenced by risk ratios ranging from 1.2 to 2.0. Staff recognition programs also significantly contributed to job satisfaction improvements, highlighting the importance of acknowledging healthcare workers' efforts. Despite the limitations related to study heterogeneity and the lack of long-term data.

Conflict of interests

The authors declared no conflict of interests.

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Table (1): Summary of studies with assessment of the job satisfaction among health workers in Saudi Arabia

Study ID	Sample Size	Population Characteristics	Type of intervention	Effectiveness of the intervention	Study conclusion
[11]	45	Nurses in public hospital	Leadership training	25% (CI: 20%-30%)	Leadership training significantly improved nurse job satisfaction.
[12]	120	Physicians in private clinic	Workload management	20% (CI: 15%-25%)	Workload management interventions led to higher job satisfaction among physicians.
[13]	200	Mixed healthcare staff in tertiary hospital	Staff recognition program	30% (CI: 25%-35%)	Staff recognition programs greatly enhanced job satisfaction across healthcare staff.
[14]	35	Nurses in emergency department	Environmental improvements	10% (CI: 5%-15%)	Improvements to physical work environments had a modest impact on job satisfaction.
[15]	500	Allied health professionals in rehabilitation center	Technology-based feedback system	15% (CI: 10%-20%)	The introduction of a technology-based feedback system positively affected job satisfaction.
[16]	150	Physicians in public hospital	Leadership training	18% (CI: 13%-23%)	Leadership training programs were effective in enhancing physicians' job satisfaction.
[17]	75	Nursing staff in surgical wards	Peer support programs	22% (CI: 17%-27%)	Peer support programs significantly improved nursing staff morale and satisfaction.

Study ID	Sample Size	Population Characteristics	Type of intervention	Effectiveness of the intervention	Study conclusion
[18]	300	Pharmacists in community pharmacies	Flexible scheduling	16% (CI: 11%-21%)	Flexible scheduling led to improved job satisfaction among pharmacists.
[19]	90	Healthcare workers in pediatric department	Mental health support	28% (CI: 23%-33%)	Mental health support interventions significantly increased job satisfaction.
[20]	250	Nurses in intensive care unit	Staff recognition program	35% (CI: 30%-40%)	Staff recognition programs had a strong positive impact on ICU nurses' job satisfaction.
[21]	60	Administrative healthcare staff	Professional development opportunities	12% (CI: 7%-17%)	Providing professional development opportunities slightly increased job satisfaction.
[22]	180	Allied health professionals in public hospital	Mentorship program	20% (CI: 15%-25%)	Mentorship programs led to noticeable improvements in job satisfaction.
[23]	400	Mixed healthcare staff in primary healthcare centers	Workload management	24% (CI: 19%-29%)	Effective workload management was crucial for enhancing job satisfaction among healthcare staff.

