Strategies For Healthcare Workers Retention In Saudi Arabia: A Narrative Review Through The Lens Of Push-Pull Theory

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Abstract

The healthcare systems are challenged to develop adaptable measures in place to meet the ever-increasing patients' populations and needs. One of the adjustments that need a continuous and universal consideration is healthcare workers' retention strategies. Yet, Saudi Arabia is one of the countries with high cases of health workers' turnover. This narrative review explored the evidence-based healthcare workers' retention strategies applicable in the situation of Saudi Arabia. Accordingly, four principal measures were noted, including adjustments on the policy frameworks, adjusting leaderships styles, modifying work environment, and improving compensations and rewards. These strategies need the attention of healthcare systems' policymakers for effective implementation; however, with a sound consideration of the prevailing economic terms.

Introduction

The healthcare system in Saudi Arabia has undergone many significant changes and transformations in the past few decades (Almalki et al., 2011). The major changes and transformations have

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been mainly driven by the ever-growing technologies in healthcare, the changing demographics and other unforeseen events (Rahman & Alsharqi, 2019). As these drivers inject more effect to the healthcare system, a need for a robust and well-trained healthcare workforce has equally arisen. As such, the healthcare systems management has put more emphasis and efforts towards achieving adequate and competent workforce.

However, retention is a critical issue in healthcare, which is mainly brought about by the scarcity of the professionals in the field (De Vries et al., 2023). A report by the World Health Organization (2016) predicted that the world will experience a shortage of about 18 million healthcare workers. Despite the efforts to retain the presently engaged healthcare workforce, the Saudi healthcare system has often befallen the challenge of high healthcare worker turnover (Falatah & Salem, 2018; Alreshidi et al., 2021). Most of the turnover cases were witnessed during the time of Covid-19 when healthcare workers complained of fatigue and overly increased workload (Al-Mansour, 2021; Nassani et al., 2021). Various healthcare professionals, including nurses, doctors, continue to leave their jobs at a worrying rate, which end up with negative impacts on critical staff shortages and inability to deliver the required quality of healthcare services to patients.

Many reasons have been cited to explain the challenge of retaining the healthcare workers, and the subsequent turnover. For instance, a study conducted by Alshareef et al. (2020) identified that most of the expatriate nurses leave the profession in Saudi due to discrimination. Other reasons such as burnout, heavy workload, long working hours, little renumeration, and gender disparities issues have been mentioned in the literature (Nassani et al., 2021). Satisfaction with the job, for whatever reason, has been established as one of the high rates of turnover (Al Bazroun et al., 2023). In another study, Albougami found out that "quality of life dimensions, such as physical and psychological health, predict nurses' intention to resign from their current workplaces" (p. 1).

While these issues are not unique to Saudi Arabia, they critically concern the Saudi healthcare systems management as they may obstruct the vision of 2030. Nevertheless, high turnover rates can hamper healthcare service delivery and undermine the overall

effectiveness of the healthcare system. Therefore, this review analyses pieces of empirical evidence to present the various strategies for retaining healthcare workers in Saudi Arabia.

The Push-Pull theory and healthcare workers turnover

The Push-Pull Theory has been applied in this review to help understand healthcare worker turnover by examining the factors that push them away from their jobs and the factors that pull them towards leaving the profession or even the country. The concept was first developed by Lee (1966) to explain the principles of human behaviors of relocation and migration. While some scholars have coined three concepts out of this theory, this review will only focus on the pull and pull factors. The push factors are those that drive employees away from their current job and the pull factors are the features that attract them for retention (Haldorai et al., 2019; Mutanga et al., 2021). Accordingly, some of the pull factors noted in the literature include effective communication, respect and organization values, competitive compensation, and staff empowerment programs (Halter et al., 2017; Mariano et al., 2023; Tang & Hudson, 2019). On the other hand, the push factors include unsatisfaction with the organization, heavy workload, burnout, poor work-life balance, and little compensations/benefits (Daouda et al., 2021; Gebrekidan et al., 2023; Poon et al., 2022; Willard-Grace et al., 2019). These elements collectively determine the turnover of healthcare workers in an organization.

Healthcare workers' turnover in Saudi Arabia

Saudi Arabia has several foreign healthcare workers, mainly from Indian, Filipino and Malaysian (Mariano et al., 2023). Nevertheless, the overall number of healthcare workers, notably nurses, is still expected to rise in order to meet the growing population needs that is expected to shoot by about 2.5% by 2030 (Alluhidan et al., 2020). Therefore, any issues that lead to turnover would be unwelcomed in the current state of Saudi healthcare system where more healthcare workers are even needed.

Consider the case of nurses, for example. Nurses spend a lot of time with patients, which puts them at the pinnacle of patients' wellbeing. Yet, like the other healthcare workers, nurses also face a plethora of issues that can distract their interest in the service

and the overall quality of services they offer (Alsufyani et al., 2020). Other significant obstacles noted in the literature include "staff shortages, socio-cultural issues in communicating with colleagues and patients, lack of specific standards, and a well-defined scope of nursing practice, all of which negatively affect the quality of care and prevent reaching the "gold standard" in nursing practice as per Saudi government" (Mariano et al., 2023, p. 990). Nevertheless, research has also noted that the rate of nurses' turnover has also become a worry to the Saudi healthcare system (Aboshaiqah, 2016).

Current research suggests that nurses' inclination to quit the service is influenced by many factors, such as those that affect their overall well-being, encompassing both physical and psychological aspects. Among international nurses, common reasons for their frequent exit from the industry include inadequate compensation, workplace stress, burnout, and perceived disparities in their pay (Albougami et al., 2020; Batayneh et al., 2019). Furthermore, factors such as long working hours, societal attitudes and view towards nursing, limited opportunities for career development, and aspirations for further education or skill enhancement play significant roles in influencing nurses' decisions to leave their employment. Moreover, there are some speculations that marital status may also contribute to the likelihood of nurses resigning from their positions (Mariano et al., 2023).

Almost the same picture replicates for the other healthcare professionals. However, there has been the influence of Covid-19 on the rate of healthcare workers' resignation from the service. Pieces of empirical evidence indicates that stress associated with Covid-19 duties made a notable impact on healthcare workers' intentions to leave their positions (Alblihed & Alzghaibi, 2022). The same study further found out that job-related stress linked to Covid-19 contributes to the healthcare workers intentions to resign. Additionally, the influx of patients following the outbreak of infectious diseases like Covid-19 significantly increased the workload, leading to burnout and stress among healthcare workers and thereby justifying their decisions to leave. Lindquist (2023) noted that the turnover rate among the healthcare workers in Saudi Arabia did hit 26% in 2021 as the healthcare workers exit due to burnout, poor work-life balance and little pay.

In the study conducted by Mariano et al. (2023), nurses' intentions to leave the profession, especially among the younger workers, was influenced by inadequate professional capabilities to manage challenging and stressful work environments. As Bashehab (2016) explains, it is apparent that lack of experience and maturity among the healthcare workers could make it challenging for them to effectively handle stressors in their roles assigned. Further evidence indicate that the newly graduated nurses usually do not the adequate and relevant preparedness to face the job challenges (Hussain & Saleem, 2014). The challenge of possibly having to face reduced healthcare workforce is apparent in Saudi Arabia.

Measures to retain healthcare workers in Saudi Arabia

The recruitment and retention of healthcare workers is a critical concern for many healthcare systems across the globe. As Almansour et al. (2023) explain, the challenge of retaining the workforce is even exacerbated by the individual characteristics of a named healthcare system. However, according to Al Harbi (2023), retention of healthcare workers in Saudi Arabia is even more cumbersome than other countries. Saudi Arabia has undergone several transformational changes aimed at improving the quality of services offered. The changes continually present hurdles to the workforce, forcing some professionals to exit the field. For example, the introduction of different educational requirement in the nursing profession makes the qualifications among the graduate nurses a bit difficult (Althumairi et al., 2023).

Nevertheless, several strategies can still be used to improve healthcare workers retention and satisfaction with the service provision in the Saudi hospitals. Some of the empirically confirmed strategies, classified as the 'pull factors', include leadership style, policy framework, modifying work environment, and improving compensations. These factors need to consider the sociocultural and economic background of Saudi Arabia to as to align smoothly with the existing background healthcare and social structure and norms.

a) Focus on policy interventions

Recruiting and retaining healthcare employees dwells majorly on their terms of operation and qualifications. These are flexible

features that can be modified to suit the labor demand. Therefore, in the case of Saudi Arabia where more native nurses are needed, the policies need to factor in the existing labor market before setting specific entry requirements. Some research studies have noted the need for flexible recruitment plan, reflected on the healthcare policy, to attract and retain more workers in the field (Alluhidan et al., 2020; Alsufyani et al., 2021). These researchers indicate that the policies need to address various factors, including improving work environment, ensuring proper educational preparations, setting late retirements, address leadership practices, and having simpler entry requirements (Alluhidan et al., 2020; Almansour et al., 2023).

In in situation where there are labor shortages within a named healthcare sector, then the policy interventions become imperative to address the shortfall in health workers. In such cases, the interventions would target the improvement in the number of healthcare workers available for deployment. Effective policy solutions may involve strategies aimed at enhancing retention rates through various means.

Implementing early career readiness programs and provision of workplace support (Heywood & Laurence, 2018). The programs can include interim training before the healthcare students join the colleges. In the process, they can gain more theoretical knowledge to augment their future learning and practices. Still, on matters to do with training and preparation, there is a need to expand the existing medical and nursing education programs to increase the influx of qualified professionals into the workforce (Laurence & Karnon, 2017). Moreover, some researchers, notably Abas et al. (2018) have also recommended that the retirement age should be raised to achieve longer duration of service delivery and to reduce chances of employee turnover.

The developed policies should also critically consider the job entry requirement, making it simpler and more aligned with the learners' professional qualifications (Almansour et al., 2023). The adjustments would focus on giving more value to skills and experience rather than degree, offering competency-based hiring of the employees, bridging the programs and apprenticeships, considering the existing alternative licensure pathways, and

embracing international talent to ensure that international healthcare workers meet the local requirements (Almansour et al., 2023). However, this should be done with care by maintaining the standard of care without jeopardizing or compromising patients' health.

b) Adjust healthcare leadership styles

Some pieces of research evidence have noted that leadership styles also heavily contribute to healthcare workers' retention. The study conducted by AbuAlRub and Alghamdi (2012, p. 668) "emphasized the importance of transformational leadership, which indicates the need for further attention to training and development of effective leadership behaviors". Some studies have also noted that the healthcare organizations that exhibit authentic leadership styles have an upper hand in retraining more workers compared to those that apply other leadership styles.

The transformational leadership style helps to keep employees to be more engaged and occupied thereby reducing their thoughts about leaving. Some of the notable strategies employed by the transformational leadership attributes include the inspiration and motivation of workers, individualized consideration of the employees' needs, intellectual stimulation and the aspect of building a strong teamwork among the employees (Choi et al., 2016; Robbins & Davidhizar, 2020). Others argue that the transformational leaders are open, reliable, honest, and transparent in their communication styles, and can create a culture of trust and collaboration, where everyone feels valued and their contributions matter (Febrian et al., 2023). Therefore, all the employees would feel valued and develop a strong need to stick around.

c) Improve on reward and compensation

A study conducted by Terera and Ngirande (2014) among the employees of an organization noted that reward and compensation have a direct positive relationship with the employees' intention to stay in the job. However, the same study further noted that even though more rewards and better pay may improve employees' willingness to stay, it does not directly improve their levels of satisfaction. Moreover, Sija (2022) noted that employees' retention

also depends on their recognition programs organized by the organization. In another study conducted by Solihah et al. (2021), employee rewards and recognition have a direct positive impact on the healthcare workers' retention when intervened by the level of organization commitment.

Competitive pay and compensation as strong pulling elements that keep employees attentive to their current roles as they offer a strong sense of financial security. Offering salaries and benefits packages that are in line with industry standards and the cost of living demonstrates that the organization holds strong value for their employees' contributions and efforts (Khalid & Nawab, 2018). A strong sense of financial security reduces stress and shows appreciation, making them less likely to seek opportunities elsewhere. On the same point, Michael et al. (2016) observed that "the more an employee is rewarded or compensated, the longer they remain in an organization and there is a positive result exist between compensation package and job satisfaction" (p. 1). A such, the healthcare organizations in Saudi Arabia needs to put more emphasis in employees' rewards and offer attractive pay, that adjusts with existing economic situation in order to retain their employees.

d) Ensure positive work environment

A positive work environment is vital in retaining more employees as it helps on various aspects of routine duties, including workload, stress and burnout, teamwork and collaboration, recognition programs, work-life balance and open communication.

Countering the effects of "push" elements, such as stress and burnout is effective in laying out a positive and attractive work environment. Many healthcare professions face demanding workloads, long hours of continuous work, and emotional distress due to work discomfort (Rangachari & Woods, 2020). The healthcare organizations should thus focus on ensuring a positive work environment that offers support systems, manageable workloads, and opportunities for breaks to the employees (Phillips, 2020). This reduces stress and burnout, making the job more sustainable and leading to higher retention rates and a significant reduction in the turnover (Pastores et al., 2019).

Improving on teamwork and collaboration is another positive way of ensuring a positive work environment. Having a supportive work environment enhances strong relationships between colleagues for social support and motivation. Consequently, the healthcare workers would enjoy the fruits of teamwork, knowledge sharing, and mutual support, making difficult situations more manageable and fostering a sense of camaraderie Rangachari & Woods, 2020). This sense of belonging and reliance on each other increases job satisfaction and reduces the desire to leave. Moreover, in the process, other positive features, such as open communication and autonomy of employes ensure. As a result, employees feel would feel more comfortable voicing concerns, providing suggestions, and participating in decision-making. This sense of autonomy and trust in their judgment increases job satisfaction and reduces feelings of being undervalued.

Lastly, healthcare organizations need to focus on ensuring a positive work-life balance among the employees. It is apparent that many healthcare workers often struggle to maintain a healthy work-life balance, end up with distress and negative mental status (Sija, 2022). Such conditions are not only detrimental to the employee but also unproductive for the organization. Hence, the Saudi healthcare organizations need to focus on improving positive work environment that can offer flexible scheduling options, predictable schedules, and opportunities for part-time work (Askari et al., 2021). This allows employees to manage personal commitments and reduces burnout, making the job more attractive in the long run.

Conclusion

Retaining healthcare workers is a critical challenge in the Kingdom of Saudi Arabia. While policy reforms have made significant steps towards improving the work environment and quality of services, they have not fully outlaid the structure for healthcare workers' retention. Several push and pull factors influence the success of retention initiatives of the healthcare organizations. Therefore, the Saudi healthcare organizations need to focus on the pull-factors, such as further policy reforms, ensuring positive work environment, adjusting leadership styles and providing competitive compensation.

Recommendations

Since there is plethora evidence in the literature, the Saudi healthcare policymakers need to focus on evidence-based practice to improve healthcare workers' retention schemes.

Conflict of interest

No conflict of interest in the authorship of this research article.

References

- Abas, Z. A., Ramli, M. R., Desa, M. I., Saleh, N., Hanafiah, A. N., Aziz, N., Abidin, Z. Z., Shibghatullah, A. S., Rahman, A. F. N. A., & Musa, H. (2018). A supply model for nurse workforce projection in Malaysia. Health care management science, 21(4), 573–586. https://doi.org/10.1007/s10729-017-9413-7
- Aboshaiqah, A. (2016). Strategies to address the nursing shortage in Saudi Arabia. International Nursing Review, 63(3), 499–506
- Abualrub, R. F., & Alghamdi, M. G. (2012). The impact of leadership styles on nurses' satisfaction and intention to stay among Saudi nurses. Journal of Nursing Management, 20(5), 668-678
- AbuAlRub, R. F., & Alghamdi, M. G. (2012). The impact of leadership styles on nurses' satisfaction and intention to stay among Saudi nurses. Journal of nursing management, 20(5), 668–678. https://doi.org/10.1111/j.1365-2834.2011.01320.x
- Al Bazroun, M. I., Aljarameez, F., Alhamza, R., Ahmed, G. Y., Alhybah, F., & Al Mutair, A. (2023). Factors influencing job satisfaction and anticipated turnover among intensive care nurses in Saudi Arabia. British Journal of Healthcare Management, 29(6), 1-10. https://doi.org/10.12968/bjhc.2021.0146
- Al Harbi, A. S. B. (2023). Factors Influencing Nursing Preceptors' Role in Saudi Arabia: A Mixed Methods Study(Doctoral dissertation)
- Alblihed, M., & Alzghaibi, H. A. (2022). The impact of job stress, role ambiguity and work–life imbalance on turnover intention during COVID-19: A case study of frontline health workers in Saudi Arabia. International journal of environmental research and public health, 19(20), 13132.
- Albougami, A. S., Almazan, J. U., Cruz, J. P., Alquwez, N., Alamri, M. S., Adolfo, C. A., & Roque, M. Y. (2020). Factors affecting nurses' intention to leave their current jobs in Saudi Arabia. International journal of health sciences, 14(3), 33–40.
- Albougami, A. S., Almazan, J. U., Cruz, J. P., Alquwez, N., Alamri, M. S., Adolfo, C. A., & Roque, M. Y. (2020). Factors affecting nurses'

- intention to leave their current jobs in Saudi Arabia. International Journal of Health Sciences, 14(3), 33–40.
- Alluhidan, M., Tashkandi, N., Alblowi, F., Omer, T., Alghaith, T., Alghodaier, H., Alazemi, N., Tulenko, K., Herbst, C. H., Hamza, M. M., & Alghamdi, M. G. (2020). Challenges and policy opportunities in nursing in Saudi Arabia. Human resources for health, 18(1), 98. https://doi.org/10.1186/s12960-020-00535-2
- Alluhidan, M., Tashkandi, N., Alblowi, F., Omer, T., Alghaith, T., Alghodaier, H., Alazemi, N., Tulenko, K., Herbst, C. H., Hamza, M. M., & Alghamdi, M. G. (2020). Challenges and policy opportunities in nursing in Saudi Arabia. Human Resources for Health, **18**(1), 98. doi:10.1186/s12960-020-00535-2
- Almalki, M., FitzGerald, G., & Clark, M. (2011). Health care system in Saudi Arabia: an overview. EMHJ-Eastern Mediterranean Health Journal, 17 (10), 784-793, 2011.
- Almansour, H., Aldossary, A., Holmes, S., & Alderaan, T. (2023). Migration of nurses and doctors: pull factors to work in Saudi Arabia. Human Resources for Health, 21(1), 25.
- Almansour, H., Aldossary, A., Holmes, S., & Alderaan, T. (2023). Migration of nurses and doctors: pull factors to work in Saudi Arabia. Human resources for health, 21(1), 25. https://doi.org/10.1186/s12960-023-00809-5
- Al-Mansour, K. (2021). Stress and turnover intention among healthcare workers in Saudi Arabia during the time of COVID-19: Can social support play a role?. PloS one, 16(10), e0258101. https://doi.org/10.1371/journal.pone.0258101
- Alreshidi, N. M., Alrashidi, L. M., Alanazi, A. N., & Alshammeri, E. H. (2021). Turnover among foreign nurses in Saudi Arabia. Journal of Public Health Research, 10(1), jphr-2021. https://doi.org/10.4081/jphr.2021.1971
- Alshareef, A. G., Wraith, D., Dingle, K., & Mays, J. (2020). Identifying the factors influencing Saudi Arabian nurses' turnover. Journal of nursing management, 28(5), 1030-1040. https://doi.org/10.1111/jonm.13028
- Alsufyani, A. M., Almalki, K. E., Alsufyani, Y. M., Aljuaid, S. M., Almutairi, A. M., Alsufyani, B. O., Alshahrani, A. S., Baker, O. G., & Aboshaiqah, A. (2021). Impact of work environment perceptions and communication satisfaction on the intention to quit: an empirical analysis of nurses in Saudi Arabia. PeerJ, 9, e10949. https://doi.org/10.7717/peerj.10949
- Alsufyani, A. M., Alforihidi, M. A., Almalki, K. E., Aljuaid, S. M., Alamri, A. A., & Alghamdi, M. S. (2020). Linking the Saudi Arabian 2030 vision with nursing transformation in Saudi Arabia: Roadmap for

- nursing policies and strategies. International Journal of Africa Nursing Sciences, 13, 100256. doi:10.1016/j.ijans.2020.100256
- Althumairi, A. A., Bukhari, F. M., Awary, L. B., & Aljabri, D. (2023). The effect of transformation policies on healthcare providers' satisfaction in primary healthcare centers: the case of Eastern Saudi Arabia. BMC health services research, 23(1), 1328. https://doi.org/10.1186/s12913-023-10335-8
- Askari, R., Rafiei, S., Akbari, R., Ebrahimi, E. H., Dehghani, A., & Shafii, M. (2021). The relationship between work-life balance and quality of life among hospital employees. International Journal of Healthcare Management, 14(2), 436-440.
- Bashehab, O. (2016). Job satisfaction among Saudi critical care nurses in Mecca, Saudi Arabia: Perceptions of what matters (Doctoral dissertation, Monash University).
- Batayneh, M. H., Ali, S., & Nashwan, A. J. (2019). The burnout among multinational nurses in Saudi Arabia. Open Journal of Nursing, 9(7), 603–619.
- Choi, S. L., Goh, C. F., Adam, M. B. H., & Tan, O. K. (2016). Transformational leadership, empowerment, and job satisfaction: the mediating role of employee empowerment. Human resources for health, 14, 1-14. https://doi.org/10.1186/s12960-016-0171-2
- Daouda, O. S., Hocine, M. N., & Temime, L. (2021). Determinants of healthcare worker turnover in intensive care units: A micromacro multilevel analysis. PloS one, 16(5), e0251779. https://doi.org/10.1371/journal.pone.0251779
- De Vries, N., Boone, A., Godderis, L., Bouman, J., Szemik, S., Matranga, D., & De Winter, P. (2023). The race to retain healthcare workers: a systematic review on factors that impact retention of nurses and physicians in hospitals. INQUIRY: The Journal of Health Care Organization, Provision, and Financing, 60, 00469580231159318.

https://doi.org/10.1177/00469580231159318

- Falatah, R., & Salem, O. A. (2018). Nurse turnover in the Kingdom of Saudi Arabia: An integrative review. Journal of nursing management, 26(6), 630-638.
 - https://doi.org/10.1111/jonm.12603
- Febrian, W. D., Rubadi, R., Sjarifudin, D., Tahir, A. M. S., & Perwitasari, E. (2023). Approach Transformational Leadership: Organizational Goal & Employee Retention. Journal of Economics, Management, Entrepreneurship, and Business (JEMEB), 3(1), 61-67.
- Gebrekidan, A. Y., Enaro, E. Y., Azeze, G., Adella, G. A., Kassie, G. A., Haile, K. E., & Asgedom, Y. S. (2023). Turnover intention among healthcare workers in Ethiopia: a systematic review and meta-

- analysis. BMJ open, 13(5), e067266. https://doi.org/10.1136/bmjopen-2022-067266
- Haldorai, K., Kim, W. G., Pillai, S. G., Park, T. E., & Balasubramanian, K. (2019). Factors affecting hotel employees' attrition and turnover: Application of pull-push-mooring framework. International Journal of Hospitality Management, 83, 46-55. https://doi.org/10.1016/j.ijhm.2019.04.003
- Halter, M., Pelone, F., Boiko, O., Beighton, C., Harris, R., Gale, J., Gourlay, S., & Drennan, V. (2017). Interventions to reduce adult nursing turnover: A systematic review of systematic reviews. The Open Nursing Journal, 11, 108–123. doi:10.2174/1874434601711010108
- Heywood, T., & Laurence, C. (2018). The general practice nurse workforce: Estimating future supply. Australian journal of general practice, 47(11), 788–795. https://doi.org/10.31128/AJGP-01-18-4461
- Hussain, T., & Saleem, S. (2014). Do employees' job satisfaction, involvement and commitment mediate relationship between quality of work life and employees' retention. World Applied Sciences Journal, 30(2), 245–252.
- Khalid, K., & Nawab, S. (2018). Employee participation and employee retention in view of compensation. Sage Open, 8(4), 2158244018810067.
- Laurence, C. O. M., & Karnon, J. (2017). What will make a difference? Assessing the impact of policy and non-policy scenarios on estimations of the future GP workforce. Human resources for health, 15(1), 43. https://doi.org/10.1186/s12960-017-0216-1
- Lee, E. S. (1966). A theory of migration. Demography, 3, 47-57.
- Lindquist, M. (2023, March 22). The Real Costs of Healthcare Staff
 Turnover. https://www.oracle.com/sa/human-capital-management/cost-employee-turnover-healthcare/#:~:text=In%20This%20Article&text=It's%20no%20wonder%3A%20Hospital%20staff,burden%20on%20finances%20and%20resources.
- Mariano, M. E. M., Woodman, A., Al Zahrani, E. M., Al Naam, Y. A., Farrelly, R. R., Al-Jamea, L. H., Al Mutair, A., Al-Ansari, R. Y., Quiambao, J. V., & Balilla, J. (2023). Turnover-attachment motive of Saudi Arabia nursing workforce: A Cross-Sectional study. Nursing open, 10(2), 988–997. https://doi.org/10.1002/nop2.1366
- Mariano, M. E., Woodman, A., Al Zahrani, E. M., Al Naam, Y. A., Farrelly, R. R., Al-Jamea, L. H., ... & Balilla, J. (2023). Turnoverattachment motive of Saudi Arabia nursing workforce: A Cross-

- Sectional study. Nursing Open, 10(2), 988-997. https://doi.org/10.1002/nop2.1366
- Michael, B., Prince, A. F., & Chacko, A. (2016). Impact Of Compensation Package On Employee Retention. Clear International Journal of Research in Commerce & Management, 7(10).
- Mutanga, J., Kaisara, G., Yakobi, K., & Atiku, S. O. (2021). Exploring push and pull factors for talent development and retention: implications for practice. Development and Learning in Organizations: An International Journal, 35(6), 1-3. https://doi.org/10.1108/DLO-12-2020-0246
- Nassani, A. A., Alzamami, A., Salamah, H., & Alkhamis, N. (2021).

 Antecedents of turnover intentions: health care staff in Saudi Arabia. Eur. J. Bus. Manag, 13, 201-209.
- Pastores, S. M., Kvetan, V., Coopersmith, C. M., Farmer, J. C., Sessler, C., Christman, J. W., ... & Price, K. (2019). Workforce, workload, and burnout among intensivists and advanced practice providers: a narrative review. Critical care medicine, 47(4), 550-557.
- Phillips, C. (2020). Relationships between workload perception, burnout, and intent to leave among medical—surgical nurses. JBI Evidence Implementation, 18(2), 265-273. Doi: 10.1097/XEB.0000000000000220
- Poon, Y. S. R., Lin, Y. P., Griffiths, P., Yong, K. K., Seah, B., & Liaw, S. Y. (2022).

 A global overview of healthcare workers' turnover intention amid COVID-19 pandemic: a systematic review with future directions. Human resources for health, 20(1), 70. https://doi.org/10.1186/s12960-022-00764-7
- Rahman, R., & Alsharqi, O. Z. (2019). What drove the health system reforms in the Kingdom of Saudi Arabia? An analysis. The International journal of health planning and management, 34(1), 100-110. https://doi.org/10.1002/hpm.2584
- Rangachari, P., & L. Woods, J. (2020). Preserving organizational resilience, patient safety, and staff retention during COVID-19 requires a holistic consideration of the psychological safety of healthcare workers. International journal of environmental research and public health, 17(12), 4267. https://doi.org/10.3390/ijerph17124267
- Robbins, B., & Davidhizar, R. (2020). Transformational leadership in health care today. The Health Care Manager, 39(3), 117-121.
- Sija, A. (2022). Determinants of employee retention in private healthcare. European Journal of Human Resource Management Studies. 5(4).
- Solihah, M., Indrawati, R., & Hasyim, H. (2021). Improving Retention of Healthcare Workers At Service Industry Through to

- Compensation Strategies. Journal of Multidisciplinary Academic, 5(3), 280-287.
- Tang, J. H., & Hudson, P. (2019). Evidence-based practice guideline: Nurse retention for nurse managers. Journal of Gerontological Nursing, 45(11), 11–19. doi:10.3928/00989134-20191011-03
- Terera, S. R., & Ngirande, H. (2014). The impact of rewards on job satisfaction and employee retention. Mediterranean Journal of Social Sciences, 5(1), 481-487.
- Willard-Grace, R., Knox, M., Huang, B., Hammer, H., Kivlahan, C., & Grumbach, K. (2019). Burnout and health care workforce turnover. The Annals of Family Medicine, 17(1), 36-41. https://doi.org/10.1370/afm.2338
- World Health Organization (2016). Global strategy on human resources for health: Workforce 2030.
 - https://iris.who.int/bitstream/handle/10665/250368/97892415 11131-eng.pdf