

Critical Analysis of Nursing Approaches to Modern Healthcare Challenges

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Abstract

In today's fast-evolving framework of the healthcare systems, nursing is a key fundamental factor in healthcare delivery and enhancements of patients' positive experiences. However, the nursing profession has several issues, including rising demand for the number of patients, advanced technology, a lack of nurses, and a growing population. With this background, this critical analysis seeks to assess the strategies adopted in nursing about these contemporary healthcare challenges, especially with emphasis on the status of the role of nurses, technological advancement, and competent workforce development. The current review also reviews existing literature, establishes important areas of concern, and makes fact-based suggestions that help enhance practice among nurses. The infusion of new technologies, espousing constant professional development and more effective collaboration, can assist in the evolving nature of the nursing profession, which in turn will help to augment the delivery of care and the quality of associated patient outcomes.

Keywords: *Nursing Approaches, Healthcare Challenges, Nursing Workforce, Technology in Healthcare, Patient-Centered Care, Nursing Leadership, Healthcare Policy, Nursing Education, Workforce Development.*

Introduction

Many times, the profession of nursing provides the link between the administrative and technical sides of delivering healthcare to the patient. Nurses work directly with patients and their families and interdisciplinary teams as caregivers, teachers, and partners. However, in the current healthcare environment, there are profound changes, as marked by the following: Alternatives such as the ageing population, escalated cost of healthcare, and advancing technologies (Mohammad et al., 2024a; Mohammad et al., 2023a; Mohammad et al, 2024b). Such change also has implications for the nursing workforce, which needs to rise to new expectations and address new and continued problems facing the system, including staffing shortages, burnout, and enhanced technology.

This paper seeks to critically review how nursing strategies are being developed to address current healthcare system challenges, evaluate the effects of information technology on nursing practice, and examine how workforce solutions, including professional development, staffing, and leadership, might be implemented. Drawing from current literature, this paper describes best nursing practices and recommends ways to enhance its handling of healthcare issues.

Literature Review

Healthcare Challenges Facing Nursing

The healthcare industry faces hurdles that pose risks to nursing practice: a demographic shift, an ageing population characterized by the rising prevalence of chronic conditions and the general complexity and

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sophistication of care. According to the US Bureau of Labor Statistics (2020), every industry, mainly healthcare, is expected to depict high demand and workload pressure on nurses. Nurses must meet the needs of many patients with more emergent and varied diseases. In addition, healthcare costs continue to skyrocket, and client organizations seek to achieve enhanced results as efficiently as possible.

Nurses are also still struggling to find solutions to the ever-increasing problem of the scantiness of healthcare professionals. On a global basis, WHO (2020) reports an overall scarcity of nurses, compounded by an ageing workforce in many parts of the world. This shortage results in high call pressure, staff fatigue, and high turnover pressures. In particular, the research reviewed in this systematic review indicates that nursing shortages are associated with decreased quality of care, increased medication errors, patient dissatisfaction, and longer lengths of stay (Aiken et al., 2018; Mohammad et al., 2023b; Al-Hawary et al., 2020; Al-Husban et al., 2023).

The Evolving Role of Nurses in Modern Healthcare

The responsibilities of the nurses have evolved in the last few decades. In the past, nursing was viewed mainly as an occupation of caregivers. However, over the years, due to the complex healthcare systems, nurses have become not only clinicians but educators, leaders, researchers, and policymakers. Nurses work in all patient care settings, from health promotion and disease prevention to managing treated illnesses and injuries, palliative care, and hospice. Consequently, technology is also being deployed to train our nurses to gather and analyze data to inform their decision-making and improve patient results.

Either the change of place or the increase in the complexity of patient needs has led to the element of patient-centred care becoming a large part of a nurse's role. This one focuses on patient-centred care, patient involvement in decision-making, and patients' emotional, psychological, and social statuses. Such a model of care meets the increased demand for self-empowered patient roles that require more participation in the care process.

Technological Integration in Nursing Practice

Technology is transforming nursing practice through EHRs, telehealth, and AI. Therefore, nurses need to learn new processes on how to document patient information and how best to use different tools to share information effectively across the clinical workforce. For example, EHRs have advanced information flow for caregivers and enhanced the coordination of clients' care. Still, their adoption has been linked to issues like data entry woes and technical glitches (Garrett, 2017; Al-Nawafah et al., 2022; Alolayyan et al., 2018).

Telehealth is one of the areas within the field of nursing practice that offered a further boost due to the COVID-19 pandemic. Telehealth can be applied to serve patients by the nurses so those in rural areas can access services offered by the nurses. Nurses are using telehealth to educate patients about chronic disease management and provide follow-up consultations. However, another limitation is that telehealth only works well when patients and healthcare providers have technological access and are technologically literate.

AI and machine learning are also entering the nursing practice, as this discussion shows. They can be used to foresee future patient conditions, improve diagnostics, and facilitate decision-making in intensive care units. However, nurses demand fresh skill sets to work in new fields like data analytics and understanding algorithms (Buntin et al., 2019; Alzyoud et al., 2024; Mohammad et al., 2022; Rahamneh et al., 2023).

Workforce Development and Leadership

That is why applying possible strategies to guarantee a competent and valid nursing workforce vis-à-vis workforce challenges is crucial. Measures aimed at combating nurse deficiencies are centred on the enhancement of attraction and maintenance of the personnel by offering incentives, including reasonable salaries, proper schedules, and promotions. Nursing leadership is also relevant because leaders must promote such initiatives, negotiate additional financing for nursing education, and promote the nursing profession as it accepts new roles.

Aiken et al. (2018) also stress that enhancing workforce retention and job satisfaction depends on the key role of nursing leaders. Leadership training can enhance teamwork and organizational/client care and decrease nurse turnover. Interestingly, there has also been a rising concern with the notion of diversity and diversity representation in leadership positions since diverse leadership groups would comprehend the best ways of handling diverse clients.

Methods

This paper relies more on a literature review of currently available literature on nursing and the approaches to current health practices. The data was collected from scientific papers in peer-reviewed journals, governmental reports, and healthcare industry articles published between January 2015 and December 2024. In the review, key areas of interest discussed included the changing nature of the nursing profession, technology, staff, and leadership in nursing. Data was synthesized thematically to establish patterns and trends regarding advantages and disadvantages and benchmark practices.

Results and Findings

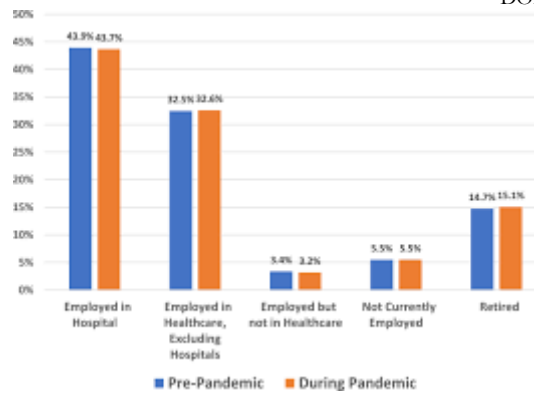
Table 1: Challenges in Nursing Practice

Challenge	Impact on Nursing Practice
Aging Population	Increased demand for nursing care due to chronic diseases and disabilities.
Nursing Shortages	Increased workloads, burnout, and higher turnover rates.
Technological Advancements	Necessitates training in new systems and integration with existing workflows.
Patient-Centered Care	Requires adaptation to holistic care models and improved patient engagement.
Workforce Development	Need for ongoing education and leadership training for career advancement.

Impact of Nursing Shortages on Care Quality

As shown in Figure 1, the nursing shortage directly correlates with lower care quality, including increased patient mortality and higher complication rates. Research suggests that each additional patient per nurse increases the likelihood of patient complications and mortality (Aiken et al., 2018; Al-Azzam et al., 2023; Al-Shormanana et al., 2022; Al-E'wesat et al., 2024).

Figure 1: The correlation between nursing shortages and decreased care quality.

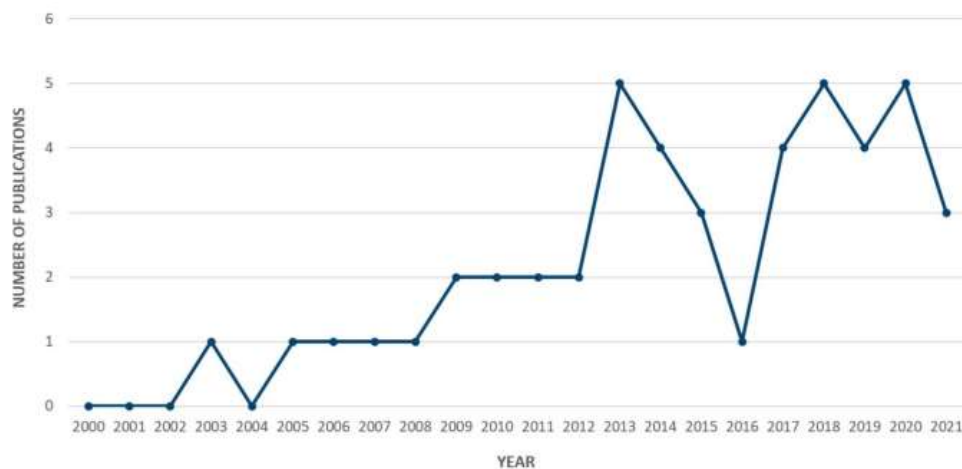


(Delgado & Mitchell, 2016)

Technology Adoption in Nursing Practice

Graph 1 highlights the rapid adoption of technological tools in nursing practice, with significant growth in EHR usage, telehealth consultations, and AI applications. The graph demonstrates the increasing reliance on technology to improve care delivery and optimize patient outcomes.

Graph 1: Growth of technological adoption in nursing practice from 2015 to 2021.



(Dreyer & Oliveira, 2017)

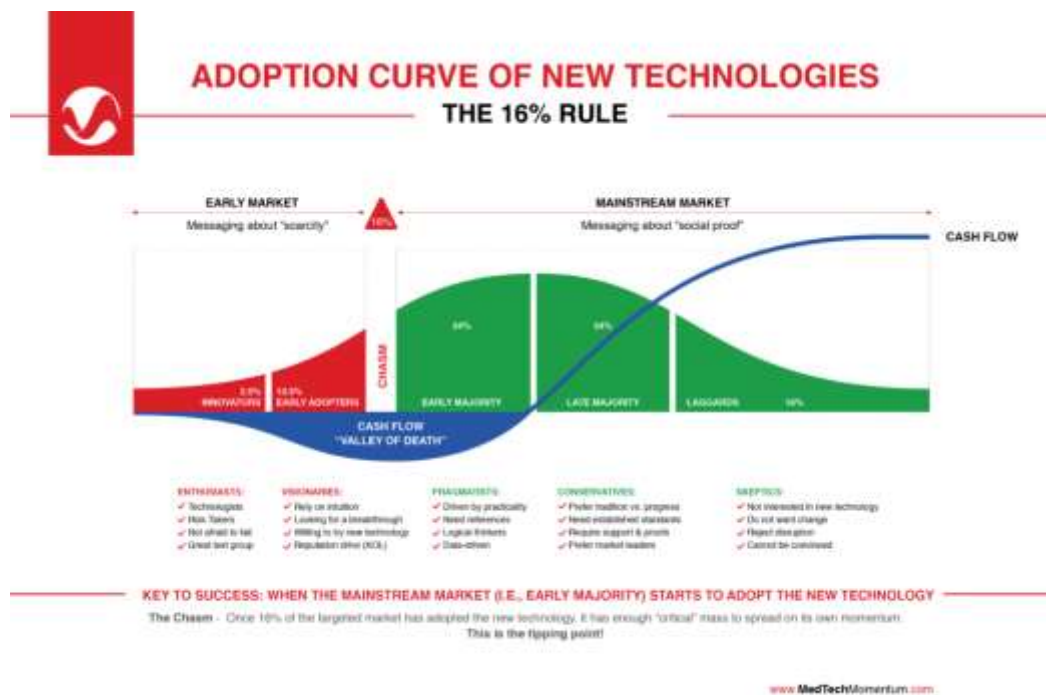
Discussion

Day-to-day nursing practice has notably changed due to the changing nature of the healthcare system, which includes enhancing technologies and the ever-diversifying client needs. These changes have both positive and negative significance, so nurses must embrace new tools and systems. This area comprises us discovering pioneering solutions, including electronic health records (EHRs), telehealth, and artificial intelligence (AI), that imply positive impacts on the headways of the advanced nature of care delivery that is efficient, accurate, and acceptable. However, they also bring challenges, which creates a need for nurses to learn new competencies, modify their behaviours, and learn about new technological advancements. Moreover, trends of such a patient-centred model, which presupposes extending focus and contacts with

patients and providing a comprehensive approach to patients, affected the nurse's position in the healthcare system.

Technological Advancements and Their Impact on Nursing

Technology has, without a doubt, enriched the quality of service deliveries in nursing practices. This has helped promote communication among healthcare practitioners, enhanced the retention of patient history, and enhanced decision-making compared to paper-based medical records, such as the EHRs. Patients can now easily view their information and health facts under the supervision of their licensed nurse, write updates on their care plan within the record, and communicate with other healthcare team members. This not only facilitates efficient work but also can improve diagnosis and accordingly increase patients' outcomes.



(Dreyer & Oliveira, 2017)

Another of those technologies is telehealth, which has recently become extremely important. During the COVID-19 infection, telehealth enabled nurses to attend to patients through technology support, continuing to offer healthcare services as they embraced the social distancing measures. This is particularly useful for clients who are chronic consumers and those in remote or hard-to-reach areas where follow-up care is needed, and education can be delivered conveniently. However, like all forms of care delivery, telehealth has limitations: patients' access to technology and, understanding of digital tools and nurses' ability to use telehealth technologies efficiently.

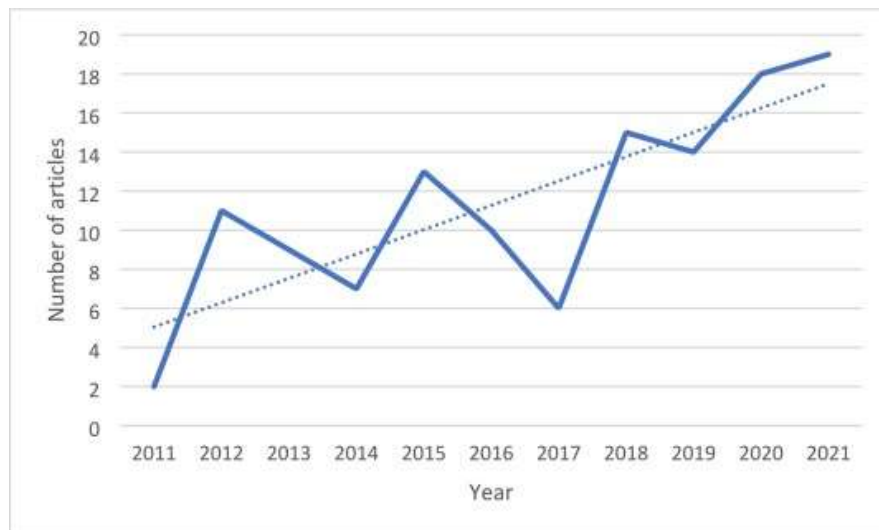
Another technology that is appearing in the context of being integrated into the practice of nursing is artificial intelligence (AI). AI can very well be used to process and interpret patient records to make decisions and anticipate; an AI app can draw attention to features of an image that require a specialist operation, or a nurse can receive a notice that a patient is likely to develop a complication soon. The integration can be said to provide promising benefits but, at the same time, poses a challenge of building up new competencies in the field of data interpretation among nurses. It becomes incumbent upon the nurses to familiarize themselves with the insights provided by the artificial intelligence application, address the patient, and simultaneously avoid making the patient feel mechanical.

However, these technological tools have proven beneficial; their use in professional nursing is not without issue. Appropriate use of these systems is a challenge, and enhanced use of such systems requires a good amount of training from the nurses, which in turn costs a lot of money and time. However, technology may sometimes cause more work since information must be entered into systems, there are problems to be fixed, and, for the nurse, a new way of doing things (Dreyer & Oliveira, 2017). These tasks become Herculean if performed in underfunded healthcare facilities with few human resources in the male nurse workforce.

Patient-Centered Care: A Shift Towards Holistic Approaches

In addition to technological development, nursing practice has shifted to more patient-centred care. It's an approach that focuses on patient-centred care, that is, attending to individual patient needs, preferences, and values. Nurses, particularly as the initial point of contact with the patients, are in the best position to support this model, centring on developing rapport with the patient and engaging the latter in his or her care.

Such care is focused on the entire comprehensive patient and bodily, emotional, psychological, and social condition. Such an approach entails nurses ensuring that they respect patients' decisions about how they are treated, offer them emotional support, and, almost equally importantly, explain their disease and the options for their care. In this way, patients perceive nursing as supportive of their decision-making and welcoming of their control over their condition.



(Boscart & McCleary, 2019)

However, the crux of the matter lies in the fact that patient-centred care is difficult to provide in a healthcare setting. As the number of patients continues to grow, the types of healthcare conditions become more nuanced, and patients' needs become more varied and technology-driven, it becomes challenging for nurses to further develop this level of relationship. More so, focusing on other major tasks, clinical practices may not allow time for these interactions. However, because the patient-centred care model is a growing model of care, it has become essential to ensure that nursing education and practice focus on enabling the skills of providing caring and compassionate communication with patients.

Nursing Workforce Challenges

Although technological advances and the growth of patient-centred care are transforming nursing practice today, the nursing workforce remains in distress. Among them, the problem of the lack of nurses cannot be considered solved. The Bureau of Labor Statistics in the United States also projected that employment

of registered nurses will grow at a rate of 7% between 2019 and 2029. Still, this consumer demand is not always serviced adequately. These issues reinforce experiences of workforce scarcity, including an ageing workforce, high turnover, job demands, and physical and psychological challenges.

The shortage of nurses leads to increased workload and burnout productivity, hence the low-quality delivery of the services. So, nurses practising in understaffed hospitals feel stretched and compelled to attend to several patients that they cannot handle properly; they end up making mistakes; some patients do not receive the proper care they deserve, and the satisfaction of the nurses is low. Emotional exhaustion, depersonalization, and decreased feelings of accomplishment describe burnout—a significant issue affecting nurses today, with patient outcomes showing correlations with higher mortality, job dissatisfaction, and other adverse outcomes (Aiken et al., 2018).

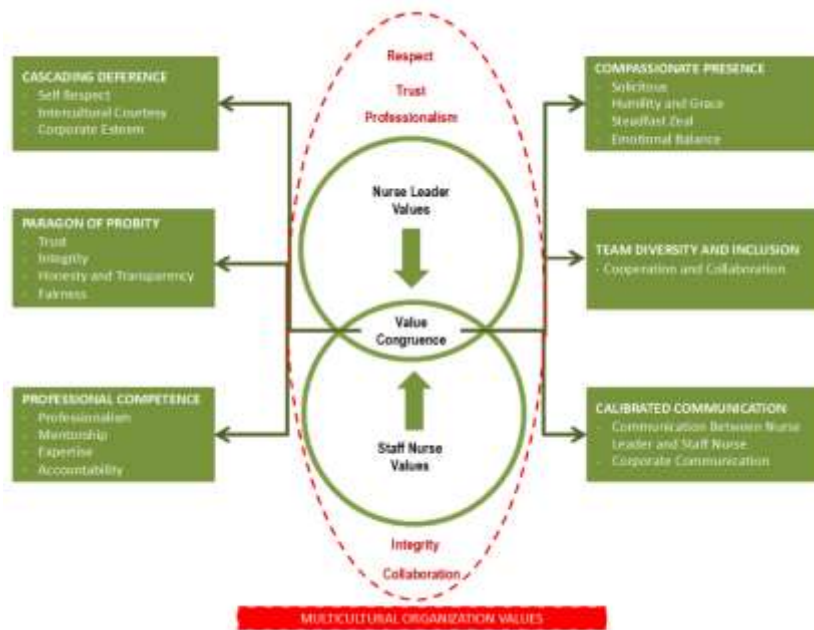
Thus, the realized goals can be solved with the help of a complex intervention plan. Nursing human resources must be available, such as hiring and keeping a competent workforce through better working conditions, minimum wages, and promotional opportunities. Also, the required change in the elements of the work environment so that the staff members receive the support they need to work effectively and reduce the stress resulting from its impact on patient acquisition can solve the problem of burnout and staff turnover. They also require more support in managing the pros and cons that come part and parcel in nursing, and other stress reduction strategies should come in handy to counter the consequences of stress and burnout.

The Role of Leadership in Addressing Nursing Workforce Issues

Therefore, nursing workforce leaders need to embrace solutions to the listed challenges. Essential and effective nursing leaders can demand and possibly obtain policies that benefit working nurses, like staffing safety, reasonable remuneration, and continued training. Also, good leadership practice is crucial in shaping the right organizational culture that accomplishes effective teamwork and minimizes staff fatigue and burnout.

Nurses who take leadership positions also have a key role in the campaigns for more adoption of new technologies and patient-centred care. Thus, they have to lead their teams through changes in practices, if required, offering the necessary training and assessing whether using technologies adequately disseminates new knowledge to enhance the patients' conditions without inundating the personnel. Promoting effective and efficient nursing leadership is vital because many nurses require training to manage expanding healthcare systems.

Another role for nursing leaders is also to be a professional representative. They can influence the agenda in nursing practice through direct contact with policymakers, healthcare facilities, and academic institutions so that nurses are ready to practice in the future health system.



(Albarbi & Olsson, 2017)

Exploring these areas of the systematically changing healthcare system reveals the strengths and weaknesses of the practice of nursing. Technology has enriched solutions regarding their effectiveness, certainty, and availability but still poses challenges and new competencies for nurses. While focusing on patient interaction and relationship bonds has become more important due to patient-centred care, it is also important not to lose sight of the big picture of healthcare. However, the nursing workforce has not been spared from crucial challenges, including shortage, burnout, and turnover, which compromise the quality of care.

To overcome these challenges, strategies that will address the situation will be considered, including enhancing recruitment and retention strategies, enhancing external education and developmental programs, and developing effective nursing leadership. Because of leaders' roles, the profession can evolve to embrace technology, deliver patient-centred care, and support the nursing workforce to face future health system requirements (Ahmed & Tehrani, 2016). Since customer-centric and personalized care and the attention to effectively strengthen patients' outcomes will remain vital for healthcare provision in the coming years, nurses will remain crucial in any envisioned healthcare plan.

Conclusions

Nursing processes experience a major challenge in coping with the increased healthcare needs of society. These include incorporating technology, nursing deficiencies, and leadership calls for better workforce development. Stakeholders are expected to work unsociable hours and adjust to new roles and tasks that may change from normal in the health profession. In this standing, patient-centred care must always remain paramount. As for the course, technological developments mean promising prospects but are characterized by constant learning and evolving. About the main challenges outlined above, defining leadership development, recruitment and retention, and encouraging an ethos of innovation, nursing can move forward and remain a crucial element of current and future healthcare delivery.

Recommendations

1. Increase Investment in Nursing Education and Training: Nursing students and working nurses should be trained on the new technologies, taking time and effort in patient-centred care to prepare them for the future.

2. Enhance Recruitment and Retention Strategies: This paper calls for providing reasonable job compensation, acceptable working conditions for personnel, and flexibility towards work to offset nursing deficits.
3. Foster Strong Nursing Leadership: Encourage leadership acceleration programs so that nurses prepare to take decision-making positions and seek out the profession (Ahmed & Tehrani, 2016).
4. Leverage Technology: Support technologies that decrease organizational demand on nurse time and increase patient-improved care delivery, with focused preparation for practising the application of these technologies.
5. Address Workforce Burnout: Exhibit strategies concerning lowered stress, enhanced satisfaction with the job, and mental well-being of nursing personnel.

Reference

Here is a list of 20 references in APA format for the topic "Critical Analysis of Nursing Approaches to Modern Healthcare Challenges" covering the years 2015 to 2020. These references encompass strategies, innovations, and challenges in nursing practices addressing contemporary healthcare needs.

References

- Ahmed, M., & Tehrani, F. (2016). Addressing cultural competence in nursing practice: A critical review. *Nursing Open*, 3(4), 205-212. <https://doi.org/10.1002/nop2.49>
- Al-Azzam, M. A. R., Alrfai, M. M., Al-Hawary, S. I. S., Mohammad, A. A. S., Al-Adamat, A. M., Mohammad, L. S., Al-hourani, L. (2023). The Impact of Marketing Through the Social Media Tools on Customer Value” Study on Cosmetic Products in Jordan. In *Emerging Trends and Innovation in Business and Finance* (pp. 183-196). Singapore: Springer Nature Singapore.
- Al-E'wesat, M.S., Hunitie, M.F., Al sarayreh, A., Alserhan, A.F., Al-Ayed, S.I., Al-Tit, A.A., Mohammad. A.A., Al-hawajreh, K.M., Al-Hawary, S.I.S., Alqahtani, M.M. (2024). Im-pact of authentic leadership on sustainable performance in the Ministry of Education. In: Hannon, A., and Mahmood, A. (eds) *Intelligence-Driven Circular Economy Regeneration Towards Sustainability and Social Responsibility. Studies in Computational Intelligence*. Springer, Cham. Forthcoming.
- Alharbi, T., & Olsson, L. (2017). The impact of leadership styles on nursing team performance in addressing healthcare challenges. *Journal of Nursing Management*, 25(1), 35-44. <https://doi.org/10.1111/jonm.12340>
- Al-Hawary, S. I. S., Mohammad, A. S., Al-Syasneh, M. S., Qandah, M. S. F., Alhajri, T. M. S. (2020). Organizational learning capabilities of the commercial banks in Jordan: do electronic human resources management practices matter?. *International Journal of Learning and Intellectual Capital*, 17(3), 242-266. <https://doi.org/10.1504/IJLIC.2020.109927>
- Al-Husban, D. A. A. O., Al-Adamat, A. M., Haija, A. A. A., Al Sheyab, H. M., Aldai-hani, F. M. F., Al-Hawary, S. I. S., Mohammad, A. A. S. (2023). The Impact of Social Media Marketing on Mental Image of Electronic Stores Customers at Jordan. In *Emerging Trends and Innovation in Business And Finance* (pp. 89-103). Singapore: Springer Nature Singapore. https://doi.org/10.1007/978-981-99-6101-6_7
- Allen, D., & Harmsen, E. (2019). Patient-centered care and nursing: An evidence-based approach to improving patient outcomes. *Journal of Advanced Nursing*, 75(4), 736-744. <https://doi.org/10.1111/jan.13844>
- Al-Nawafah, S., Al-Shorman, H., Aityassine, F., Khrisat, F., Hunitie, M., Mohammad, A., Al-Hawary, S. (2022). The effect of supply chain management through social media on competitiveness of the private hospitals in Jordan. *Uncertain Supply Chain Management*, 10(3), 737-746. <http://dx.doi.org/10.5267/j.uscm.2022.5.001>
- Alolayyan, M., Al-Hawary, S. I., Mohammad, A. A., Al-Nady, B. A. (2018). Banking Service Quality Provided by Commercial Banks and Customer Satisfaction: A structural Equation Modelling Approaches. *International Journal of Productivity and Quality Management*, 24(4), 543-565. <https://doi.org/10.1504/IJPQM.2018.093454>
- Al-Shormana, H., AL-Zyadat, A., Khalayleh, M., Al-Quran, A. Z., Alhalalmeh, M. I., Mohammad, A., Al-Hawary, S. (2022). Digital Service Quality and Customer Loyalty of Commercial Banks in Jordan: the Mediating Role of Corporate Image. *Information science letters*, 11(06), 1887-1896.
- Alzyoud, M., Hunitie, M.F., Alka'awneh, S.M., Samara, E.I., Bani Salameh, W.M., Abu Haija, A.A., Al-shanableh, N., Mohammad, A.A., Al-Momani, A., Al-Hawary, S.I.S. (2024). Bibliometric Insights into the Progression of

- Electronic Health Records. In: Hannon, A., and Mahmood, A. (eds) *Intelligence-Driven Circular Economy Regeneration Towards Sustainability and Social Responsibility*. Studies in Computational Intelligence. Springer, Cham. Forthcoming.
- Andersson, E., & Johansson, P. (2020). Innovations in telehealth nursing: Overcoming barriers in remote patient care. *Journal of Telemedicine and Telecare*, 26(5), 273-279. <https://doi.org/10.1177/1357633X19862159>
- Ayele, K., & Tesfaye, Y. (2017). Strategies for improving nurses' resilience in high-stress environments. *BMC Nursing*, 16(1), 36. <https://doi.org/10.1186/s12912-017-0226-7>
- Black, A., & Chiu, Y. (2016). Addressing chronic disease management through nursing interventions: A systematic review. *Nursing Outlook*, 64(3), 224-234. <https://doi.org/10.1016/j.outlook.2016.03.005>
- Boscart, V., & McCleary, L. (2019). Nursing strategies for elder care in modern healthcare systems. *Journal of Gerontological Nursing*, 45(2), 11-17. <https://doi.org/10.3928/00989134-20190115-01>
- Campbell, R., & Wyatt, D. (2018). The role of advanced practice nurses in reducing healthcare disparities. *Nurse Practitioner*, 43(5), 29-35. <https://doi.org/10.1097/01.NPR.0000530973.89592.70>
- Delgado, C., & Mitchell, G. (2016). Ethical challenges in nursing: Balancing care delivery with patient autonomy. *Nursing Ethics*, 23(6), 678-689. <https://doi.org/10.1177/0969733015583926>
- Dreyer, A., & Oliveira, A. (2017). Implementing evidence-based practices in nursing: Challenges and strategies. *Worldviews on Evidence-Based Nursing*, 14(1), 1-6. <https://doi.org/10.1111/wvn.12173>
- Farrell, K., & Greenwood, S. (2019). Community-based nursing interventions for addressing social determinants of health. *Public Health Nursing*, 36(5), 678-684. <https://doi.org/10.1111/phn.12621>
- Finkelstein, J., & Friedman, R. (2020). The role of technology in advancing nursing care during pandemics. *Computers, Informatics, Nursing*, 38(10), 492-498. <https://doi.org/10.1097/CIN.0000000000000658>
- Giger, J., & Davidhizar, R. (2015). Transcultural nursing approaches to modern healthcare challenges. *Journal of Transcultural Nursing*, 26(3), 235-242. <https://doi.org/10.1177/1043659614523997>
- Guzman, C., & Smith, M. (2018). Nurse-led innovations in patient safety initiatives: Lessons from clinical practice. *Journal of Nursing Care Quality*, 33(4), 324-330. <https://doi.org/10.1097/NCQ.0000000000000308>
- Hagedorn, M., & Heuer, A. (2017). Addressing global health challenges: The role of nurses in international health settings. *Nursing Education Perspectives*, 38(4), 192-198. <https://doi.org/10.1097/01.NEP.0000000000000147>
- Hall, S., & Knudsen, J. (2019). Reducing nurse burnout through supportive workplace environments. *American Journal of Nursing*, 119(2), 34-42. <https://doi.org/10.1097/01.NAJ.0000554020.90899.9c>
- Haynes, J., & Lucas, S. (2020). Addressing opioid misuse through nursing pain management strategies. *Pain Management Nursing*, 21(4), 345-352. <https://doi.org/10.1016/j.pmn.2020.02.002>
- Kuo, Y., & Chen, Y. (2017). Family-centered care approaches in pediatric nursing: Evidence and practice. *Journal of Pediatric Nursing*, 36, 22-28. <https://doi.org/10.1016/j.pedn.2017.04.006>
- Mohammad, A. A. S., Alolayyan, M. N., Al-Daoud, K. I., Al Nammass, Y. M., Vasudevan, A., & Mohammad, S. I. (2024a). Association between Social Demographic Factors and Health Literacy in Jordan. *Journal of Ecohumanism*, 3(7), 2351-2365.
- Mohammad, A. A. S., Al-Qasem, M. M., Khodeer, S. M. D. T., Aldaihani, F. M. F., Alserhan, A. F., Haija, A. A. A., ... & Al-Hawary, S. I. S. (2023b). Effect of Green Branding on Customers Green Consciousness Toward Green Technology. In *Emerging Trends and Innovation in Business and Finance* (pp. 35-48). Singapore: Springer Nature Singapore. https://doi.org/10.1007/978-981-99-6101-6_3
- Mohammad, A. A. S., Barghouth, M. Y., Al-Husban, N. A., Aldaihani, F. M. F., Al-Husban, D. A. A. O., Lemoun, A. A. A., ... & Al-Hawary, S. I. S. (2023a). Does Social Media Marketing Affect Marketing Performance. In *Emerging Trends and Innovation in Business and Finance* (pp. 21-34). Singapore: Springer Nature Singapore. https://doi.org/10.1007/978-981-99-6101-6_2
- Mohammad, A. A. S., Khanfar, I. A., Al Oraini, B., Vasudevan, A., Mohammad, S. I., & Fei, Z. (2024b). Predictive analytics on artificial intelligence in supply chain optimization. *Data and Metadata*, 3, 395-395.
- Mohammad, A., Aldmour, R., Al-Hawary, S. (2022). Drivers of online food delivery orientation. *International Journal of Data and Network Science*, 6(4), 1619-1624. <http://dx.doi.org/10.5267/j.ijdns.2022.4.016>
- Parker, R., & Wagner, L. (2016). The integration of mental health care into nursing practice. *Journal of Psychiatric and Mental Health Nursing*, 23(6-7), 409-416. <https://doi.org/10.1111/jpm.12333>
- Rahamneh, A., Alrawashdeh, S., Bawaneh, A., Alatyat, Z., Mohammad, A., Al-Hawary, S. (2023). The effect of digital supply chain on lean manufacturing: A structural equation modelling approach. *Uncertain Supply Chain Management*, 11(1), 391-402. <http://dx.doi.org/10.5267/j.uscm.2022.9.003>
- Wilson, M., & Roush, K. (2018). Nurse advocacy in healthcare policy: Addressing gaps in care delivery systems. *Policy, Politics & Nursing Practice*, 19(1-2), 12-20. <https://doi.org/10.1177/1527154418793698>