



The Role of Nurse Leaders in Improving Patient Care Quality.

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Abstract - Promisingly, nurse leaders are the critical foundation of improving patient care outcomes through the best leadership practices, innovation development, and the handling of challenges in health systems. Some of the emergent research ideas include leadership formation, position transformation, effective communication, and use of applications in leadership nursing. The role of the ‘nurse leaders’ is revealed from ten current scholarly articles that underline how they contribute to enhancing patient experiences from sound governance practices, effective communication frameworks, and flexibly designed solutions within increasingly complex organizations. These areas of concern are; Millennial Nurses’ preference for leadership positions, Role Overload, and Leadership Succession Framework. This part also explores the meaning of the patient, personalized medicine, artificial intelligence in patient care, the quality of virtual care, and the metaverse. The methodologies include both qualitative and quantitative techniques involving eManuals, role overload instruments, and patient surveys.

Effective nurse leaders contribute highly to the advancement of the patient-centered results, innovation in healthcare, and accessibility. Communication is seen to form a big theme as alluded to in the care of older persons. Further, smart applications including AI and other conceptual care structures have a possibility of revolutionizing the fields; novel paradigms such as metaverse for leadership advancement and partnerships. This research calls for further



research on new technologies and frameworks to help nurse leaders acquire knowledge and resources in enhancing healthcare quality in a dynamic environment.

Keywords: Nurse leadership, patient care quality, healthcare innovation, leadership frameworks, virtual care, AI in healthcare, communication in nursing.

I. INTRODUCTION

The paper also suggests that in present-day highly infused healthcare organizations, nurse leaders have essential responsibilities for determining the standard of patients' care. In addition to the clinical competencies, they must make decisions, speak and write, and learn to cope with changes in systems. Managing this shift brings about many problems such as role overcrowding, career progression to leadership, and adopting innovations. Such challenges call for improvement solutions to enhance the execution of multiple roles by nurse leaders, to deliver quality care.

The growing use of artificial intelligence (AI), virtual care models, and vertical health care gives an impetus to use modern instruments and approaches by the nurse leaders. The best ways, solutions and ideas of leadership: collaborative methods, adopting successful communication in effective teamwork and the utilization of technologies in them all, can play essential roles in overcoming those challenges and attaining high levels of quality. This research paper reviews the complex and complex nature of the nurse leader position within the organization, presenting strategies, issues and technological innovations that may be used in supporting nurse leaders to enhance quality patient care.

II. LITERATURE REVIEW

A. Factors Influencing Millennial Nurses' Intention to Undertake Leadership Roles

Millennial nurses have a different set of preferences and reasons that go to leadership positions. Women and men of working age prefer flexibility, training, and good relationships with their employers [1]. Nevertheless, they face problems like, generational prejudice, lack of sponsorship, and structural restraints restrict their advancement. Knowledge about all these factors is very vital in developing paths for inclusion in leadership in thought with an aim of recruiting millennial nurses in future.

B. Role Overload in Nurse Leaders

The facts presented imply that role overload is a threat to competent and efficient functioning of people in this profession. Due to the importance of this issue for scholars, it is pivotal to investigate the problem of role overload that undermines the efficiency of nurse leaders in discharging their responsibilities [2]. Stress that arises from job demands of leadership, coupled with administration and practice leads to burnout. This therefore provides leaders with a major challenge and as such there ought to be delegation, training on time management as well as



create organization support frameworks on how best to tackle such a problem. At the clinical level the signs of staff burnout include deterioration of decision-making, decline in communication, and absence of staff coaching skills in nurse's leaders. All these effects filter down through the health care organizations and impact staff efficiency, staff turnover and resident outcomes. Furthermore, because of role overload those willing to ascend to the next level of production do not take more responsible positions hence there is always a leadership deficit observed.

To overcome these challenges, the following appears to be desirable when implementing them the identified strategies include: Delegation is force that enables the nurse leaders to allocate workload properly so that necessary work gets enough focus without burdening people [3]. Both time management training and time management coaching involve providing leaders with tools for how to plan their work, how to prioritize work, how to schedule their work and how to plan down time for personal development. Furthermore, having organizational support structures such as, mentorship, proper staffing, and efficient ways of accessing, seeking and getting appropriate support also enhance leadership Networking.

Understanding the impact of role overload and failure to take preventive measures in this respect, healthcare organizations can prepare strong and invulnerable nurse leaders with the necessary skills set to manage the demand on their increased responsibilities on the one hand, and high levels of patient expectations on the other. All these efforts help in sustaining good leadership practices with an emphasis of the success of the organizations and the patients they serve.

C. Transitioning into Leadership Roles



Figure 1: Transitioning into leadership roles

(Source: [4].)

Passing from staff level to leadership often poses a number of challenges to such individuals as interim nurse managers. The packages such as eManuals and the shadow and/or buddy schemes assist new leaders a great deal. These resources give the required knowledge



and skills that is helpful in easing transitions and enhancing professionalism during leadership experiences [4]. There is evidence available as regards the further development of frameworks like structured mentorship programs and comprehensive eManuals that is especially beneficial for new nurse leaders. Tutoring can be beneficial because the chairs select new leaders and then assign tutors who can give recommended advice and support during the process. These leaders assist in managing the challenges that come with leadership, critique decisions made right from the group's formation to the time they are implemented, and remind the group's leadership of the importance of being cheerful during tough times. This guideline fosters great succession of confidence between the mentor and the mentee and assists the interim leaders to gain the appropriate psychological outlook to prosper in their new positions.

The next kind of source is manuals that are also crucial to assist interim nurse managers in knowing more about the expectations and responsibilities as well as the competencies needed to work in leadership positions. These sorts of tools may include tutorials, checklists and self-assessment tools on various topics pertinent to team leadership, staff conflict, finance, and responsibilities in quality improvement processes. eManuals help new leaders to get easy access to certain material that helps a lot to shorten the time needed to master certain concepts and ideas.

In addition, these resources are beneficial in the formation of the necessary groundwork for the further professional growth. Over time, nurse leaders are able to utilize their mentorship relationships as well as eManuals in reviewing their leadership strategies, as well as learning of their strengths, as well as areas to improve and the new trends in the capacity [5]. These frameworks also help to create learning organizations within the Health Care Organizations so that nurse leaders are able to acquire latest knowledge and strategies to be adopted within the organization.

Finally, the role transition into leadership is a progressive process especially for the interim nurse managers. Supporting the newly promoted including, offering effective tools like the mentorship programs and eManuals will therefore highly increase chances of success. These resources provide the needed knowledge and skills in order to perform leadership roles, but more importantly, the emotional and professional support required to be successful.

D. Board Leadership and Responsibilities

These two sources of health care governance and strategic decision-making underpayment patient-centered care. Individuals with a nursing background in board positions should be able to manage administrative responsibilities together with clinical experiences to influence positive changes in policy impacting on health care facilities [6]. Effective leadership has been evidenced in this research because adequate governance fosters the achievement of organizational objectives or goals as well as the improvement of patient outcomes. Board of



nurse leaders is cognizant with the policies and decision that affect delivery of quality services to the clients directly. This means that they can bring insights about patient care that not only affects clinical delivery, but also about the corporate management of health care institutions in ways that are most patient-friendly. For instance, these leaders can speak for increasing the use of a number of innovative measures that range from delivery of quality care to the integration of technology in the delivery of services as well as supporting training activities that seek to enhance the quality experience of the patients. This makes sure that patient care remains as a focal point in board level decision making and discussions because they have got standards that show that they are more of patient and health care staff advocates.

Patient-centered forms of governance are not limited to the participation of only the nurse leaders, but involve teamwork. Because of their positions within boards and in other executive leadership positions, nurse leaders can make sure every facet of strategic planning, including resource distribution, workforce, and patient treatment, is congruent with a healthcare organization's mission of providing safe, quality patient care. In these discussions they are strategic because the policies that are formulated may determine the availability and quality of care on the front line.

Organizational governance is based on well-developed principles of transparency, accountability, and organizational alignment with patient outcomes [7]. Nurse representation in boards is crucial in this way because they know nursing goals and objectives and also understand the reason behind all decisions that are made at the executive level. Whether promoting resource utilization, supporting the incorporation of the synthesized knowledge into clinical practice, or shaping the organizational culture of hospitals with the patient-centered philosophies, the knowledge found in this dissertation highlights the roles of the nurse leaders in developing a culture in which patient outcomes could be enhanced consistently. According to the current knowledge, understanding is the key to addressing patient needs even if they are older individuals. Effective and emphatic communication by nurse leaders enhances trust and subsequently a positive health system [8]. Using the training of employees and communication policies, team leaders can foster strong development of communication system across organizations. Virtual care calls for core quality frameworks that can support nurse leaders to deliver quality health care to patients in virtual settings. They also recommend safety of patient, access, adoption technical support among other crucial areas of importance [9]. The integration of these two frameworks will ensure that extra gaps are closed in the healthcare delivery system while at the same time ensuring that patient with complication receive the best care possible. The use of artificial intelligence in health has come to the fore allowing creation of new ways of delivering a better care to patients and the issue of access. Nurse leaders are also key position in the implementation of AI technology to support care delivery; data analytic is used in workflow redesign and improvement of clinical decision making. The evolution in the use of



technology identifies the nurse leader as a direct consumer and advocate for technology within the system.

Artificial intelligence in healthcare creates or at least adapts treatments specifically for the patient and optimally affects the healthcare system. Advanced practice nurses have prime responsibility to implement these advancements in practice, to ensure congruency with clinical practice preferences. This integration draws the attention to the fact leadership plays an instrumental role in embracing disruptive healthcare solutions. Leadership in oral healthcare comprises of enhancing patient outcomes with an emphasis on the practices supported by literature and patient reports [10]. Specifically, by encouraging this kind of philosophy, nurse leaders can trigger the desire to make changes based on shortfalls observed in specialized care areas of nurse practice. New perspectives of the metaverse include rendering of care to patients, training managers, and shared care [11]. Virtual reality is a modern innovation in healthcare organizations that can be used in training, creating realistic simulations, and adding global collaboration to an organization's list of possibilities for the future.

III. METHODOLOGY

A. Factors Influencing Millennial Nurses' Intention to Undertake Leadership Roles

Studies concerning the millennial nurses' leadership role self-intention mostly employ quantitative and qualitative methods. Focus-group discussions and individual interviews allow to discuss such factors as beliefs, values, and attitudes that can be either facilitative or barriers for millennials on their way to leadership [12]. Such approaches offer good understanding of the issues and opportunities within this group including working hours, career progression and sponsorship concerns. However, qualitative approaches like the surveys and questionnaires allow a large number of respondents be sampled to examine patterns and relationships in the population. For example, questionnaires will measure the antecedents of voluntary leadership role taking among millennial nurses with regards to organizational support, promotion of career development opportunities or job satisfaction. Using mixed methods both helps to identify factors for leadership intentions in millennial nurses and provides valuable findings to leadership development curriculum and organization of seeking and building the next generation of leaders for the nursing profession.

B. Role Overload in Nurse Leaders

Work overload of the nurse leaders is a burnout factor that affects the performance and productivity of the leaders. Most of the research conducted in this area includes the construction and administration of role overload instruments. These instruments will be used to assess the level of stress and workload disparity in terms of functional dual role of clinical and leadership for nurse leaders. It is also common to involve the determination of factors that contribute to role overload while developing these tools; factors that include understaffing, oversimplified



administrative tasks, and lack of organizational support [13]. Multidimensional instruments such as surveys and self-report questionnaires are then employed to measure the degree of these stressors as well as their effects on the mental well-being, organizational decision-making ability, and production effectiveness of the nurse leaders. For example, role overload instruments can require from nurse leaders to express how much they feel overloaded with work, stressed and how they are capable of effectively performing clinical and leadership tasks.

C. Transitioning into Leadership Roles

Leadership development is a challenging process especially for those who are serving in between or new management positions; thus, eManuals have been designed to take nurse leaders through this crucial process. These resources provide frameworks and guidelines to support newly qualified nurse managers to manage their field effectively the eManuals usually encompasses areas such as communication, team management, conflict resolution among others decision-making. As to be conveniently located for reference, these manuals can be developed to address organizational field or leadership hierarchy [14]. They may be applied in teaching concepts such as organizational leadership, laying down policies of strategic management, and various methods of handling relations with members of cross-functional teams. Moreover, eManuals contain case studies, and examples, self-assessments, which makes the material more professional. The use of such resources enables the subject of concern to obtain the basic information on the kind of leadership that such individuals are likely to undertake that will eventually ease their pressure in the course of their leadership roles hence enhancing on leadership effectiveness. These manuals are used in leadership training to guarantee that the newcomers join the nursing leadership society with adequate preparation.

D. Board Leadership and Responsibilities

Corporate governance and leadership at the board level are critical because they determine whether an organization putting the patient as the center of attention. Other research frameworks that have been used in nursing to explore the governance responsibilities of these leaders are centered on identifying how effective these leaders are in the formulation of strategic decisions and policies ailing the health care facilities and directly impacting the patient care results. Such frameworks tend to build on the theories of organizational behavior, leadership and management as performed within the healthcare facilities, including the strategic leadership theory which focuses on the role of bringing strategic alignment of leadership decisions to the overall organizational goals [15]. Further, methods as the balanced scorecard or quality improvement models could be applied to evaluate the consequences of boards' decisions on performance as well as on quality of patient care. These frameworks position nurse leaders at the governance level, pointing out how leadership actions concerning staffing, resources and care delivery processes can impact on patients. Thus, as a result of procurement and selection decisions, nurse leaders have the potential to influence health care



policies that translate in better quality patient care, reduction in cases of adverse events, and supportive nursing practice environment, which may all enhance quality patient care.

E. Communication in Enhancing Patient-Centered Outcomes

Interpersonal communication contributes significantly to the improvement of Pt–HC, most importantly for patients with multiple characteristics of frailty, including the elderly. Rapid reviews are regularly utilized in assessments of communication and ways that can help elevate the patient satisfaction status. It involves the creation of new knowledge out of existing information obtained through a well-defined coordinated process of analyzing bibliometrics. Unlike the traditional systematic reviews, a rapid review often has one key question which for example, could be how health care communication strategies can enhance patient satisfaction, comprehension and concordant medicine taking. Researchers gather data from several investigations, assess the quality of each, and synthesize results within a short-time interval [16]. Such an approach enables clinicians to find the best practice guidelines for communication related to patient’s involvement, trust, and understanding of health information in a short time. There is a particular benefit in using the rapid review methodology in healthcare because often decisions must be made quickly in order to service improve. Applicable to clinical contexts, rapid reviews help to identify current communication practices that nurse leaders might employ in their settings, enabling them to apply the best practices into the context of care delivery enhanced by virtual platforms. Expert panel approach usually entails literature review, consensus discussion, and guideline development that addresses important aspects of the virtual care including safety, patient data privacy, communication modes and integration of virtual models of care into conventional care environments [17]. These panels employ such best practices for developing frameworks that make virtual care inclusive, fair, and of equal quality as that offered in face-to-face settings. Through such panels, the nurse leaders will be involved in the formulation of virtual care policies to avoid compromise of patient outcomes in virtual situations.

AI is revolutionizing the patient care experience by increasing diagnostic and therapeutic preciseness and patient surveillance. Studying AI’s implementation in patient care is usually done through employing different research methodologies, cross-sectional qualitative interviews, quantitative questionnaires, and cases [18]. These papers explore the manner in which machine learning and predictive modelling in AI may enhance the operations of the healthcare sector by offering data regarding patient states, diseases evolution, and recommending therapies. Finally, there is research on the availability of AI-driven technologies and their impact on improving the populations’ access to better quality healthcare especially the disadvantaged ones. Prospective research endeavors on AI applications into healthcare facilities are beneficial in determining efficiency of AI tools in real-life usage situations as well as the influence of the applied tools to the patients, healthcare costs, and system productivity.



These papers also present the sustained advance of AI in medicine and support the need to educate healthcare workers, nurse's leaders among them on the ethical and clinical use of AI technologies.

Progress in the field of gene targeted therapies is some of the most profound changes in the paradigm to more patient specific diagnostics and therapies. The analyses conducted in this topic can be case studies, clinical trials, or data-analysis research approaches. Case studies concentrate on particular examples of using the concept of P4 medicine that has been brought to working practice and demonstrated ways in which its use has led to better outcomes for patients: with cancer, cardiovascular diseases, and other genetic diseases [19]. Such research principally entails comparing patient information with treatment strategies, possibly based on genetic markers. Qualitative and quantitative approaches can also be seen as important, to better understand how the usage of large datasets can advance efficiency and effectiveness of treatments. Use of electronic health records (EHR) and Genetic testing therefore enables healthcare providers to design and implement care plans that are localized depending on the patient data obtained on the EHR system. Studies carried out in this area assert that through the adoption of personalized medicine the available healthcare treatments can be better targeted leading to enhanced patient satisfaction and cheaper health care.

In the field of oral health care there is a need to quantify the patients' perception so as to get efficient measures of patient outcome and satisfaction. Surveys are one of the most popular methods to collect the patients' opinions about their experiences with dental services. Such surveys may include the questions about satisfaction with communication with dental providers, sensation of comfort during the treatment, and view on the patient – provider relations [20]. The information acquired from these surveys may address areas such as eliminating patient's concern, patient education, or enhancing techniques used in treatment. Furthermore, these surveys enable the dental care providers and the nurse leaders to learn shifts in patient satisfaction and therefore make modifications on the care procedures. According to the survey approaches, healthcare institutions can obtain the understanding of the patient experience and apply the measures that can improve the quality of the continuing care Oral health care organizations can apply such approaches to obtain the understanding of the patient experience and can implement measures that would improve the quality of the continuing care that is delivered. Thus, improving care provided in oral healthcare facilities in the long run. These insights also aid the patient centered care model by ascertaining that individual patients are well attended to hence enjoying higher levels of compliance.



F. Metaverse Applications in Patient Care

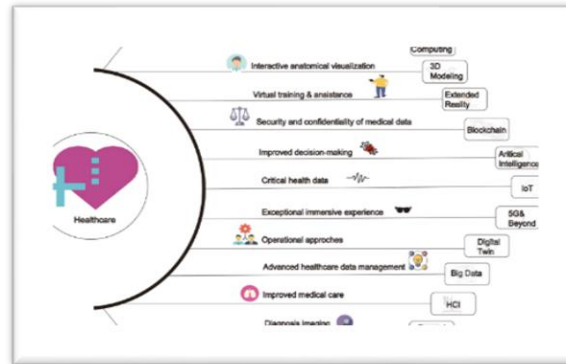


Figure 2: Metaverse Applications in Patient Care

(Source: [21])

The metaverse is proving to be the new horizon in medical education and patient's care. Application ideas of the metaverse in healthcare are usually presented through virtual simulation methods. Healthcare courses such as Osso VR afford healthcare providers a virtual opportunity to navigate through different medical scenarios, enact medical procedures on virtual patients, and be active members of collaborative caring teams including nurse leaders. Scholars employ the simulation tests to explore the possibilities of the metaverse in the context of delivery patient care services such as virtual consultations, interventions, and training [21]. These simulations allow new technologies and care models to be tried in an experimental manner with conditions remaining virtual until the technology goes live in a genuine environment. Through such simulations, the using the metaverse technologies, the healthcare professionals could evaluate its impact in patient care, education of other care givers, and the delivery of health care by interprofessional teams.

IV. DISCUSSION

After synthesizing the findings from the ten articles, several leadership challenges and strategies stand out. Political skill is evident from the fact that nurse leaders scramble for role demands pulling a role overload, although they are involved in administrative roles, clinical work, and strategy development. This calls for leadership in organizations where such issues have come up strategies like delegation, mentoring, and time management must be put in place. Challenges arise that involve the need for applying new-age tools in leadership systems such as AI, virtual care, and personalized medicine [22]. While machine learning can assist with decision making and telemedicine can improve treatment organization and delivery, the versatility of specific and virtual medicine is truly unique. Communication for all and especially among the nurses enhances patient experience and oriented outcomes, especially for



the older patients. EManuals is one of the role transition tools that help to ease leadership transition, providing new leaders with the necessary tools to address the challenges of their positions [23]. However, there are still voids in existing literature, especially, about the usage of metaverse in the healthcare domain. Further studies should be aimed to discover the further perspectives of the metaverse in leadership training, in the patient care delivery, and in the collaborative care processes. Further research in these areas will enhance an assurer comprehensive understanding of how prospective technologies can transform the paradigms of the healthcare leadership and the quality of patient care.

V. CONCLUSION

The main leadership activity of the nursing professionals involves leading direction change on patient care quality through support, direction and active patient advocacy. Great emphasis should be placed on leadership development so that nurse leaders are capable of handling clinical and organizational functions. Effective communication is one of the effective ways through which care givers can work cohesively, increase the positive impact in patient centered care and increase patient satisfaction. Further, use of emerging technologies like artificial intelligence, virtual care, and personalized medicines help the nurse leaders to gain the opportunity of adopting new concepts that in turn enhances the quality of patients care without compromising any disparities. Therefore, further future research to consolidate more paradigms of leadership within healthcare and new technologies remains inevitable. This research will assist in addressing new challenges as well as aid in improving leadership actions and care provision so the nurse leaders are ready to address the diverse patient populations in a complex healthcare environment.

REFERENCE LIST

- [1] Labrague LJ, Al Sabei SD, Al-Rawajfah O, Burney IA, Alrub RA. Factors Influencing Millennial Nurses' Intention to Undertake Nursing Leadership Role. In47th Biennial Convention 2023 Nov 13. Sigma.
- [2] Kennedy JM. Exploring a Role Overload Instrument for Nurse Leaders. In53rd Annual Communicating Nursing Research Conference 2020 Apr 16. WIN.
- [3] Parchment J, Galura S. Warshawsky. An eManual for Interim Nurse Managers: Supporting Role Transition and Professional Growth. Association of Leadership Science in Nursing; 2023 [Internet]. 2023
- [4] Harper K, Benson L. Board leadership and responsibilities. Nurse leadership and management: Foundations for effective administration (1st ed., pp. 477-501). Springer Publishing Company. 2023.



- [5] Sharkiya SH. Quality communication can improve patient-centred health outcomes among older patients: a rapid review. BMC Health Services Research. 2023 Aug 22;23(1):886.
- [6] Demaerschalk BM, Hollander JE, Krupinski E, Scott J, Albert D, Bobokalonova Z, Bolster M, Chan A, Christopherson L, Coffey JD, Edgman-Levitan S. Quality frameworks for virtual care: Expert panel recommendations. Mayo Clinic Proceedings: Innovations, Quality & Outcomes. 2023 Feb 1;7(1):31-44.
- [7] Singh P. Transforming Healthcare through AI: Enhancing Patient Outcomes and Bridging Accessibility Gaps. Journal of Artificial Intelligence Research. 2024 Jul 3;4(1):220-32.
- [8] Poalelungi DG, Musat CL, Fulga A, Neagu M, Neagu AI, Piraianu AI, Fulga I. Advancing patient care: how artificial intelligence is transforming healthcare. Journal of personalized medicine. 2023 Jul 31;13(8):1214.
- [9] Karimbux N, T JOHN MI, Stern A, T MAZANEC MO, D'AMOUR AN, Courtemanche J, Rabson B. Measuring patient experience of oral health care: A call to action. Journal of Evidence-Based Dental Practice. 2023 Jan 1;23(1):101788.
- [10] Suh I, McKinney T, Siu KC. Current perspective of metaverse application in medical education, research and patient care. In Virtual Worlds 2023 Apr 18 (Vol. 2, No. 2, pp. 115-128). MDPI.
- [11] Arshad H, Tayyab M, Bilal M, Akhtar S, Abdullahi AM. Trends and Challenges in harnessing big data intelligence for health care transformation. Artificial Intelligence for Intelligent Systems. 2024:220-40.
- [12] Arshad H, Tayyab M, Bilal M, Akhtar S, Abdullahi AM. Trends and Challenges in harnessing big data intelligence for health care transformation. Artificial Intelligence for Intelligent Systems. 2024:220-40.
- [13] Curigliano G, Burstein HJ, Gnant M, Loibl S, Cameron D, Regan MM, Denkert C, Poortmans P, Weber WP, Thürlimann B, Aebi S. Understanding breast cancer complexity to improve patient outcomes: the St Gallen international consensus conference for the primary therapy of individuals with early breast cancer 2023. Annals of Oncology. 2023 Nov 1;34(11):970-86.
- [14] Sedhom R, Shulman LN, Parikh RB. Precision palliative care as a pragmatic solution for a care delivery problem. Journal of Clinical Oncology. 2023 Jun 6;41(16):2888.



- [15] Del Giorgio Solfa F, Simonato FR. Big Data Analytics in Healthcare: exploring the role of Machine Learning in Predicting patient outcomes and improving Healthcare Delivery. *International Journal of Computations, Information and Manufacturing (IJCIM)*. 2023;3.
- [16] Dilas D, Flores R, Morales-García WC, Calizaya-Milla YE, Morales-García M, Sairitupa-Sanchez L, Saintila J. Social support, quality of care, and patient adherence to tuberculosis treatment in Peru: the mediating role of nurse health education. *Patient preference and adherence*. 2023 Dec 31;175-86.
- [17] Ahmad A, Tariq A, Hussain HK, Gill AY. Equity and Artificial Intelligence in Surgical Care: A Comprehensive Review of Current Challenges and Promising Solutions. *BULLET: Jurnal Multidisiplin Ilmu*. 2023 May 28;2(2):443-55.
- [18] Ahmad A, Tariq A, Hussain HK, Gill AY. Equity and Artificial Intelligence in Surgical Care: A Comprehensive Review of Current Challenges and Promising Solutions. *BULLET: Jurnal Multidisiplin Ilmu*. 2023 May 28;2(2):443-55.
- [19] Kosklin R, Lammintakanen J, Kivinen T. Knowledge management effects and performance in health care: a systematic literature review. *Knowledge Management Research & Practice*. 2023 Jul 4;21(4):738-48.
- [20] Emon MM, Khan T, Alam M. Effect of Technology on Service Quality Perception and Patient Satisfaction-A study on Hospitals in Bangladesh. *International Journal of Research and Applied Technology (INJURATECH)*. 2023 Dec 7;3(2):254-66.
- [21] Juba OO, Olumide AF, Idowu David J, Adekunle K. The role of technology in enhancing domiciliary care: A strategy for reducing healthcare costs and improving safety for aged adults and carers. Available at SSRN 5023483. 2024.
- [22] Gross TK, Lane NE, Timm NL, Conners GP, Hoffmann J, Hsu B, Lee L, Marin J, Mazor S, Paul R, Saidinejad M. Crowding in the emergency department: challenges and best practices for the care of children. *Pediatrics*. 2023 Mar 1;151(3).
- [23] AlJaffar MA, Enani SS, Almadani AH, Albuqami FH, Alsaleh KA, Alosaimi FD. Determinants of quality of life of cancer patients at a tertiary care medical city in Riyadh, Saudi Arabia. *Frontiers in Psychiatry*. 2023 Feb 8; 14:1098176.