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Integration of Telehealth in Nursing Practices

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Abstract:- Nursing practices are being revolutionized by telehealth, a technology that is redefining healthcare delivery and enabling nurses to visit patients at home, in underserved areas, and in remote locations. Telehealth enhances patient empowerment, early detection of health problems, proactive management of chronic illnesses, and prompt intervention. Nurses are essential to telehealth, bridging geographic barriers and advancing health equity. Despite obstacles such as data confidentiality, training, and the digital divide, telehealth in nursing offers advantages such as improved patient outcomes, decreased medical costs, efficient monitoring of chronic conditions, and seamless communication between patients and healthcare teams.

Keywords:- *Telehealth, Nursing, Telemedicine, Healthcare Services.*

I. INTRODUCTION

Rapid technological breakthroughs have caused a dramatic upheaval in the healthcare delivery environment in recent years. Telehealth is one of these breakthroughs that has the capability to completely renovate the way that healthcare services are delivered, especially when it comes to nursing practices. The field of telehealth, which includes tele-monitoring, telemedicine, and remote patient care, has enormous possibility to enhance resource efficiency, expand access to medical care and improve patient outcomes. The integration of telehealth into nursing practices is a critical frontier in redefining patient care paradigms as the healthcare sector navigates the challenges of modern healthcare delivery.

Telehealth technologies are utilised by nurses to facilitate virtual consultations, track patients' health status, offer education and counselling, and collaborate with additional healthcare personnel involved in the treatment of patients. This makes it possible for nurses to visit patients at their homes, places of employment, or even in underserved and rural regions where access to healthcare services may be limited.

Since patients may actively participate in their treatment plans and get support from nurses without needing in-person visits, telehealth in nursing improves patient empowerment and engagement. Additionally, telehealth makes it possible to detect health problems early, manage chronic illnesses pro-actively, and intervene quickly, all of which improve patient satisfaction and results.

As front-line medical professionals, nurses are essential in utilising telehealth to overcome geographic obstacles, deliver treatment outside of clinical settings, and provide patients the authority to actively participate in their own wellness. Additionally, this study targets to demonstrate the revolutionary potential of telehealth in improving health equity, multidisciplinary cooperation, and increased access to specialized care in marginalized populations. In addition to redefining the parameters of traditional nursing duties, telehealth also sparks a paradigm change towards patient-centered, accessible, and equitable healthcare delivery by promoting synergy between technology and compassionate care.

Telehealth integration into a family nurse practitioner programme was accomplished through curriculum reform using a quality improvement approach. In a role-transition course, the intervention took the form of lecture-style instruction with telehealth learning objectives. In a short test of transformation, faculty decision-making was guided by a Plan-Do-Study-Act cycle. A knowledge survey was used for assessing self-reported confidence in one's understanding about telehealth in order to assess if the modification was significant. After the intervention, students' confidence in their understanding of telehealth enhanced. The modification gave professors the chance to think of other strategies for including telehealth learning experiences in practicum classes. Following the intervention, students' self-confidence in their understanding of telehealth grew. The modification gave professors the chance to think of other strategies for including telehealth learning experiences in practicum classes. Ultimately, this research offered a framework for development that allows instructors to create and evaluate efficient teaching strategies for preparing graduate nursing students to use telehealth technologies.1

England's four community health agencies that employed telemedicine to track case studies that focused on individuals with long-term heart failure and chronic obstructive lung disease.. In order to determine what obstacles and facilitators stand in the way of the successful implementation of remote monitoring for patients suffering from chronic heart failure and chronic obstructive pulmonary disease, this study examined frontline staff acceptance of telehealth. Thematic analysis of data obtained from May

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2012 to June 2013 through qualitative interviews with 84 frontline staff members, including nurses, and 21 managers and important stakeholders. Regarding the reasons for investing in telehealth and its possible influence on nursing responsibilities, staff attitudes ranged from reluctance to excitement. With adequate training for staff and a collaborative approach to execution, it was concluded that having trustworthy and adaptive technology and resources especially earmarked for telemedicine service would be crucial in assisting in overcoming early acceptability obstacles. Early achievements that promoted telehealth usage among staff members, aided in clinical learning, and expanded acceptance were also crucial. It was determined that when implementation challenges arise, practitioners may get disenchanted with employing technology to carry out duties that are customarily performed in-person. For doctors to incorporate telehealth into their regular practice, it is imperative that obstacles be addressed.2

Using PubMed, Scopus®, and 17 of the 35 databases available on the EBSCOHost platform, an electronic literature search was conducted. It featured research whereby Telehealth concepts and aspects were included into the primary treatment students' curriculum. The data was retrieved that was necessary to comprehend the breadth and sustainability of the programme, and the outcomes were calculated. Eight publications were included in this evaluation following a full-text screening of 164 articles and a critical analysis of 34 of them. There was inconsistency in the way telehealth was included into the different health care curriculum, according to a comparison of these studies. Basic telehealth information was often included in the material that was sent, but depending on the treatments, the depth and scope of the content varied greatly.3

In an effort to look at how technology has influenced Saudi Arabian nursing, a systematic study into how telehealth is changing nursing care was carried out. The research offered a thorough examination of telehealth and its significance for nursing practice, education, and quality. Following an evaluation and analysis of the literature, it was discovered that telehealth in nursing is understudied; that telehealth facilitates communication between nurses and patients, which improves nursing efficiency and quality by encouraging successful results, seamless care for patients, and pleasant interactions; and that telehealth and telemedicine are essential components of modern nursing education and practice. These results led to the analysis's conclusion that telehealth has to be incorporated into KSA's nursing curriculum, along with healthcare professionals' telehealth training and reskilling, as well as further primary research with a major focus on telenursing.4

With the goal to evaluate the feasibility and first outcomes of integrating Alice Agora, a telehealth scheme was used in perpetually cross-sectional study as a means of enhancing health care delivery in a new primary care-based medical system. Over the previous six months, they had 4193 consultations (February and August 2021). Initial findings indicated that patients were quite satisfied. Upper respiratory tract (n = 1542; 28.5%), gastrointestinal (n = 781; 14.43%), musculoskeletal (n = 607; 11.22%), and miscellaneous (n = 643; 11.88%) issues accounted for the majority of complaints. It was discovered that 43.9% of the cases were solved by nurses with medical aid, and 20.1% (842) of the cases were resolved digitally, that is, by a discussion with a nurse alone. Out of all the cases, only 2676, or 6.6%, required an ER referral. It was found that our nurses-driven system resolved 64% of the cases to a perfect outcome. In many healthcare organisations, there is still a structure that revolves around physicians, which limits the opportunities for cooperation. It thus becomes crucial to establish a structure driven by ongoing improvements in clinical outcomes and operational efficiency by shifting the culture from one that is physician-centered to one that is patient-centered.5

In order to figure out how telehealth material and experiences are being used in pre-licensure and graduate nursing programme curricula, a survey study was carried out. The response rate to the survey was 21% (n = 82). While 22% and 45% of graduate programmes and prelicensure programmes, respectively, planned to integrate, 55% of them lacked any telehealth curriculum. The biggest obstacle to integration was a financial one. The study found that in order to assess telehealth in nursing curriculum, further research was required. It is imperative that telehealth courses be offered in nursing schools for plenty of reasons.6

It was said in a research paper on Telehealth Educational Resources for Graduate Nurse Faculty that while few nursing programmes provide the training, graduate nursing students must be able to practice telehealth. Lack of academic expertise, telehealth possibilities, or funding might be obstacles to this deployment. The article outlined the new fundamental skills for teaching telehealth and provided developing advanced practice registered nurses with activities, resources, and advice to help them become ready to organise, conduct, and carry out successful telehealth practices.7

The methodology of Whittemore and Knafl served as the basis for an integrated review. After searching various websites, 16 studies examining telemedicine and telehealth in New Hampshire surroundings between 2014 and 2020 were found. It was found that there were quantifiable benefits, such as fewer ER and hospital admissions, financial savings, reduced physical constraints, and improved vital signs, in addition to procedural advantages such rapid access to specialists. Preliminary statistics seem to favour telemedicine consultations with geriatricians, psychiatrists, and palliative care physicians. Financial and medical incentives, such Medicare savings and fewer hospital admissions, were also provided. The COVID-19 epidemic has presented NHs with further obstacles, which telemedicine and telehealth may be able to lessen.8

A purposive sample of nine healthcare professionals (HCPs) who were members of a University Integrated Healthcare Network (UIHN) tele-oncology committee, comprising doctors, nurses, and chemists, was gathered using a descriptive qualitative approach. This study sought to determine how health care professionals (HCPs) in a

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specialised tele-oncology programme view a newly created position of clinical telehealth coordinator (CTC) at a UIHN in a Québec, Canada, metropolitan region. The CTC's varied role was recognised by the HCPs. The HCPs selected knowledge, competence, and experience as core competencies. Three crucial elements were recognised by the participants for the successful implementation of this role: having a shared language, having structural support, and making the role's execution relevant. The findings imply that the CTC position could be more complicated than first thought, and the variety of abilities points to the role's potential expansion. When considering the crucial elements in the execution of this position, this has significant ramifications for administrative tactics.9

In order for analysing how nursing programs incorporate electronic health records in simulation-based learning scenarios in classroom, skills lab, or simulation lab settings, a descriptive research was carried out. According to survey results, 56.2% of participants simulated using an electronic health record in a skills lab, simulation lab, or classroom. It was found that the utilisation of electronic health records is gaining popularity due to simulation-based learning experiences, and students are gathering and assessing patient data in addition to documenting it for meaningful use in order to support clinical preparedness and guide decisions about patient care.10

A study was held to assess the effectiveness of Self Instructional Module on knowledge regarding Telemedicine among the staff nurses working, at Selected Hospitals. The findings showed that staff nurses' knowledge significantly increased following the delivery of the self-instructional module. Staff nurses' overall pretest and posttest percentages compare to show that the self-instructional module's overall efficacy on telemedicine knowledge was 39.1%. This exhibited that the Self Instructional Module was a useful tool for enhancing staff nurses' level of Telemedicine expertise. The study found that the self-instructional telemedicine module was a useful tool for improving staff nurses' knowledge from mediocre to excellent, which will improve their ability to serve patients and present them with the best career opportunities.11

II. CONCLUSION

The integration of telehealth poses challenges that must be addressed, such as ensuring the confidentiality and safeguarding of patient information, training nurses to use new technologies, and addressing the digital divide that may prevent some patients from obtaining telehealth services. However, the benefits of telehealth in nursing include enhanced results for patients, greater efficacy, and lower medical expenses. Moreover, nurses can quickly and effectively monitor chronic conditions, manage acute care episodes, and provide timely interventions. Furthermore, telehealth encourages continuity of care, allowing for seamless communication between patients and healthcare teams.

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