

Tele Nursing

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Abstract:

Telenursing is a rapidly emerging field in modern health care where nurses provide care using telecommunications and digital tools, allowing them to help patients from a distance. As information and communication technologies have developed, telenursing has become an important part of telehealth. It lets nurses assess, plan, carry out an devices patient care without needing to be physically present. This method has become especially important in recent times because of the increase in chronic illnesses. The need to reach people in remote or underserved areas and the push for more affordable and personalized care. By bridging the gap between patients and healthcare professionals, it has the potential to transform health outcomes, promote equity, and strengthen the resilience of health systems worldwide.

Keywords; Telenursing, Remote Monitoring System, Telepractice, Teletriage

I. INTRODUCTION:

Telenursing uses telecommunications and digital tools to offer nursing care and health education to patients who are not physically present at a health care facility. It is a part of telehealth and lets nurses evaluate, keep track of, give advice, teach and support patients from a distance. As more people have mobile phones, internet access and remote monitoring tools, tele nursing has become a useful way to improve access to good health care, especially for those in rural, less served or home bound areas.

Tele nursing involves tasks like providing phone triage, managing chronic conditions, promoting health, giving medication guidance, caring for patients after surgery and offering emergency support. It helps keep care consistent, cuts down on unnecessary trips to the hospital and improves patient satisfaction by making it easier to get nursing care when needed. In modern health care system, telenursing is also important for responding to disasters, managing pandemics and delivering affordable preventive and treatment services.,

DEFINITION:

Telenursing is defined as "a subset of telehealth that applies nursing practice via technology to provide care, improve access, and promote health for individuals and populations."

-American Nurses Association (2019)

PURPOSES OF TELENURSING:

- **Improved access to care:**

Telenursing helps nurses reach people in remote or underserved areas, filling in the gaps in health care access, especially in rural communities

- **Enhanced Patient Engagement & Accurately Document:**

Patients and their relatives can get more involved in their care by easily contacting nurses for advice, support and information which is especially helpful for managing long term conditions at home

- **Increased Efficiency And Cost Reduction:**

By reducing the unnecessary trips to the hospital and encouraging home based monitoring, telenursing can lower the use of costly healthcare services and shorten hospital stays which helps to reduce healthcare expenses.

- **Continuity Of Care & Preparation for Immediate Treatment:**

It allows for more regular and prompt communication between patients and health care providers, building a stronger, ongoing relationship that supports better health outcomes.

- **Remote Monitoring And Management & Maintain Records:**

Nurses can keep track of patients vital signs like blood pressure and weight from a distance and offer assistance with complex tasks such as wound care using tools like video calls and mobile applications.

- **Pandemic Response:**

During the COVID-19 outbreak, telenursing was vital in allowing nurses to care for patients from home, easing the burden on hospitals and helping to keep patients safe from infection.

PRINCIPLES OF TELENURSING:

Accountability and professional responsibility

Nurses follow the same professional, ethical and legal standards as they do in regular nursing practice. This shows that following ethical guidelines upholding professional standard and following the right laws. It is important to protect the rights of clients such as their privacy, confidentiality and the right to give informed consent.

Competency:

- Nurses should check how skilled they are in using information and communication technologies and find any areas where they need more knowledge
- They need good communication, critical thinking, teaching and counseling abilities to provide quality care from a distance.
- Nurses must also make sure they use consistent and accurate ways to gather and record information about their clients

Optimal Client –Centered Outcomes

- The relationship between a nurse and a client should be meaningful, centered on the clients needs and built on trust and respect.
- Tele nursing should always work in the clients best interest, focusing on their health, independence and dignity.
- Nurses should take into account cultural, language and psychological; factors to offer care that is both respectful and suitable for the clients background.

Support of telepractice

- This point talks about the tools and support needed to make telenursing work effectively.
- It includes making sure there is the right technology, good internet connection and proper training for both nurses and clients.

TYPES OF TELENURSING:

Using telecommunication technology to deliver nursing care is known as telenursing. It can be divided into various categories according to the settings, services provided and communication method.

Based on communication mode:

- Telephone based telenursing: Traditional telephonic advice, follow-up calls and patient education
- Video conferencing Telenursing : In person interactions through videoconferences for evaluations, consultations or health education is known as videoconferencing telenursing.
- Web/Chat-based Telenursing: It uses secure online doors, converse or dispatch to give nursing guidance and support
- Mobile App-based Telenursing: Nurses communicate through dedicated healthcare apps to monitor, educate, or counsel patients.

Based on Service Delivery:

- Triage: It is the process of remotely evaluating a patient's symptoms and directing them toward the best course of action.
- Remote Patient Monitoring (RPM): Using digital devices from home to monitor a patient's vital signs or chronic diseases is known as remote patient monitoring
- Telehealth Education & Counseling: Offering lifestyle advice, mental health counseling, health education or assistance with medication is known as telehealth education and counseling.
- Case Management: It is the process of remotely organizing treatment strategies for complicated or long-term illness.
- Follow-up & Post-Discharge Care: It is monitoring patients after hospital discharge in order to prevent complications or readmission.

Based on Specialty/Setting:

- Home Health Telenursing: Providing aged, disabled or post-operative care to patients in their homes is known as home health telenursing.

- School or community telenursing: Providing services to students or community health initiatives is known as school/ community telenursing.
- Chronic Disease Telenursing: It is managing conditions like diabetes, hypertension, heart failure, or COPD remotely.
- Psychiatric Telenursing: Telemedicine based mental health monitoring ,counselling and support.
- Rural or Remote Area Telenursing: Delivering healthcare to populations with limited access to in-person facilities

USES OF TELENURSING:

Remote Patient Monitoring:

It enables nurses to keep an eye on patients' vital signs, symptoms and overall health from home such as blood pressure.

Chronic Disease Management:

It assists in managing ongoing health issues like diabetes, high blood pressure or heart disease with regular check-ups.



Fig 1: Uses of telenursing

Post Operative and Follow up Care:

Offers guidance on wound care, helps patients stick to their medication schedules and accesses recovery progress without visiting patient in person.

Health Education and Counseling:

Gives patients valuable information about their health, lifestyle changes, how to take medications and ways to take care of themselves.

Emergency Triage And Guidance:

Helps patients figure out how urgent their care needs are and quickly directs them to the right medical services.

Mental Health Support:

Provides counseling, therapy reminders and emotional support via secure online platforms.

Medication Management:

Nurses can check prescriptions, set reminders and teach patients how to properly use their medications.

Rural And Underserved Area:

Access brings health care services to areas where it is hard to find in-person nursing care.

Home health care coordination:

Improves communication between patients, their families and health care teams to ensure better ongoing care.

Public Health And Preventive Care:

Offers vaccination reminders, screening programs and health promotion activities through telecommunications.

COMPETENCIES OF TELENURSING:

Clinical competence:

- Ability to assess, plan, implement and evaluate patient care from a distance

Knowledge of clinical procedures, triage processes and evidenced based guidelines for telehealth
Communication Skills:
Ability to communicate clearly through phone, video and chat
Skill in listening carefully and showing empathy even when not physically present
Technical /Technology Skills:
Using telehealth platforms ,electronic health records(EHrs),and remote monitoring tools
Ability to fix small technical problems for patients

Table:01 Competencies of Telenursing



Fig 2: Skills of Telenurse

Ethical and legal awareness

- Understanding privacy, confidentiality and data protection rules such as HIPAA or local laws.
- Knowing to get informed consent for telehealth services.

Cultural Competence :

- Providing care that respects different cultures and backgrounds
- Handling language differences and varying levels of health knowledge

Critical Thinking And Decision Making:

- Making fast, informed decisions that cannot be done in physical examination
- Prioritizing patient concerns and deciding to refer them to other professionals.

Patient Education And Advocacy:

- Teaching patients how to use telehealth tools properly
- Encouraging patients to manage their health, follow treatment plans and improve their health knowledge

Interprofessional Collaboration:

- Working with other healthcare professionals through digital communication
- Being part of a team that provides care remotely.

ADVANTAGES OF TELENURSING:**Improved Access To Care:**

- Enables patients in rural or remote areas to get nursing services without having to travel long distances
- It helps homebound or chronically ill patients access healthcare more easily.

Cost Effective :

- It lowers costs associated with hospital visits, transportation and overnight stay in hospitals
- It helps to reduce overall healthcare costs by allowing early interventions

APPLICATION OF TELE NURSING

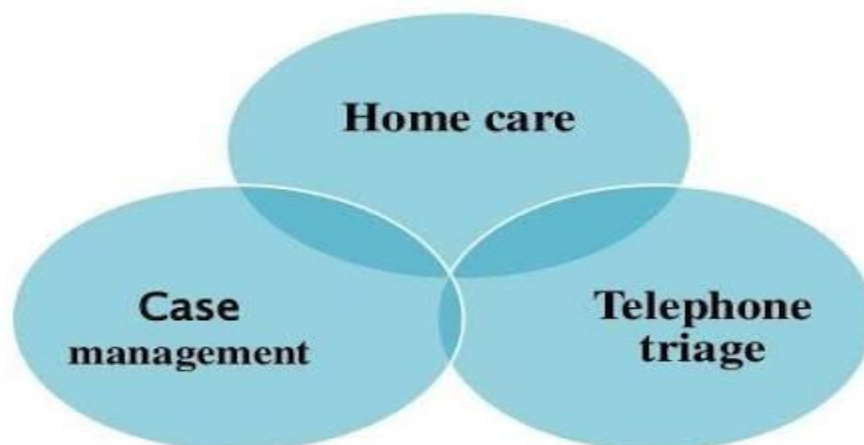


Fig 3: Application of Telenursing

Time Saving For Patients And Nurses :

- It saves time for both nurses and patients by eliminating the need to travel
- Makes it easier to have quick consultations and follow ups

Continuity Of Care:

- Encourages ongoing monitoring of patients with long term health conditions
- Supports regular check ins and helps patient stick to their treatment plans better

Patient Education And Support :

- Offers a chance to teach patients about their health, medications and how to manage their care at home
- Boosts patient confidence and helps them take more control of their health

Early Detection Of Complications:

- Remote monitoring helps spot changes in a patients condition early on
- Reduces the need for hospital readmissions by addressing problem quickly

Improved documentation and communication:

- Digital tools make it easier to keep accurate records and share information among healthcare professionals
- It helps different healthcare teams work together more effectively

Support During Emergencies And Pandemics:

- Telenursing is especially helpful when inperson visits are restricted such as during a pandemic like COVID-19.
- Ensures that patients continue to receive care even in difficult circumstances.

DISADVANTAGES OF TELENURSING:

- Limited Physical Assessment – Nurses cannot perform hands-on examinations (e.g., palpation, auscultation), which may affect accuracy of assessments.
- Technology Dependence – Requires reliable internet connection, devices, and software; interruptions can delay care.
- Privacy and Security Concerns – Risk of data breaches, unauthorized access, or violation of patient confidentiality.
- Limited Access for Some Populations – Older adults, low-income groups, or rural populations may lack digital literacy or access to devices.
- Reduced Personal Interaction – Absence of face-to-face contact may affect rapport, trust, and therapeutic relationships.
- Legal and Regulatory Issues – Licensing, jurisdiction, and reimbursement policies vary across regions and can complicate practice.
- Potential Miscommunication – Audio/video quality issues or lack of non-verbal cues can lead to misunderstanding between nurse and patient.

- Training Requirements – Nurses need extra training to use telehealth platforms and manage remote care effectively.
- Emergency Limitations – Not ideal for acute or emergency conditions that require immediate in-person care.

BARRIERS OF TELENURSING

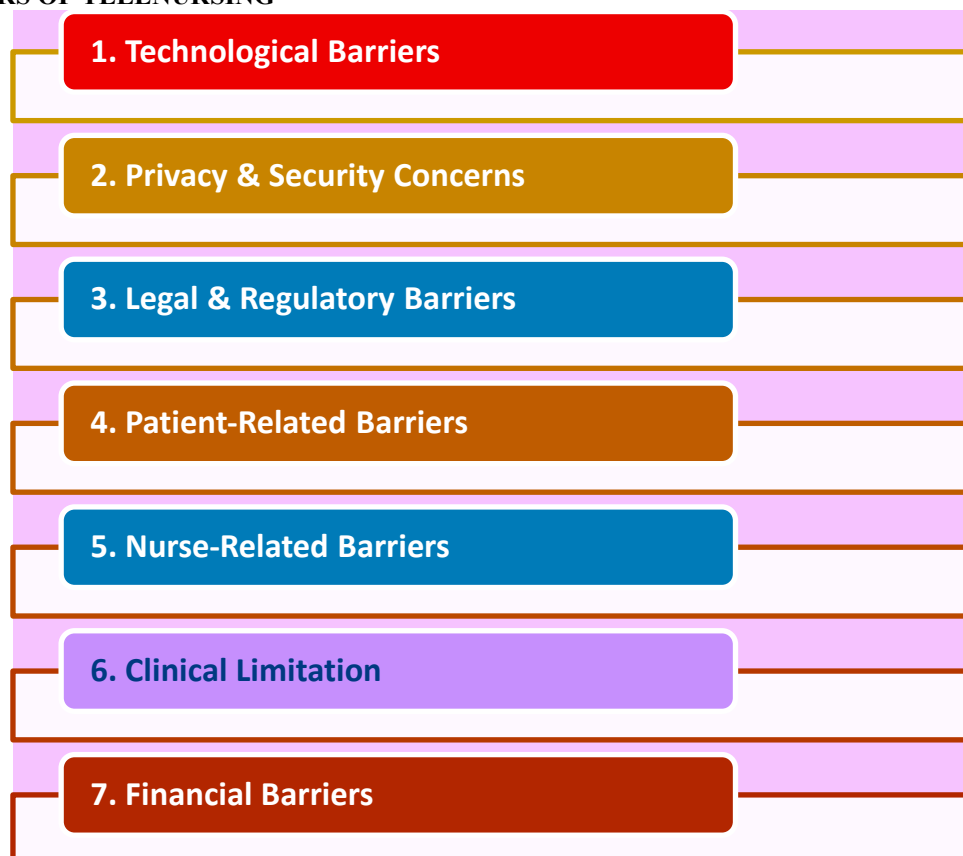


Fig 4: Barrier of Telenursing

1. Technological Barriers

- Poor or unreliable internet connectivity
- Limited access to devices (smartphones, computers)
- Inadequate technical support or infrastructure
- Frequent software or system glitches

2. Privacy & Security Concerns

- There is a risk of data breaches or hacking
- Difficulty ensuring confidentiality of patient information
- Lack of clear policies for data protection

3. Legal & Regulatory Barriers

- Different state/country regulations for telehealth
- Licensing issues for nurses across jurisdictions
- It unclear reimbursement or insurance policies

4. Patient-Related Barriers

- There is limited digital literacy (elderly or rural populations)
- Lack of trust in remote care compared to in-person care
- Language or cultural barriers during online sessions

5. Nurse-Related Barriers

- Need for additional training in telehealth tools
- Increased workload or screen fatigue
- Difficulty in developing nurse-patient rapport virtually

6. Clinical Limitation

- Inability to perform hands-on physical assessments
- Limited scope for emergency interventions
- Challenges in monitoring complex conditions remote

7. Financial Barriers

- High initial setup cost for equipment and software
- Limited funding for ongoing maintenance and training

II. Conclusion:

Telenursing is significant advancement in today as health care system where nursing skills meet modern communication tools to provide care from a distance .it helps more people access medical help , especially those living in remote areas, places with few health care options or those who cannot easily leave home. It also keeps care consistent and allows for quick action when needed. Even though there are challenges like keeping patient information confident, dealing with technology issues and need for training, the advantages of telenursing are greater than the problems it brings . it is a major change in how nursing care is provides, focusing on the patient and making the health care system stronger for the future

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