



TELENURSING:- A NEW AVENUE

Nursing

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ABSTRACT

Nursing informatics integrates nursing science, computer science, and information science to manage and communicate data, information, and knowledge in nursing practice. The nursing profession updates itself to keep pace with changes in technologies and the healthcare environment. It bridges the gap between nurse and patient. Telenursing is an innovative technology available to healthcare professionals to provide care to individuals in a new and fast growing field of nursing informatics.

KEYWORDS

Nursing informatics, Technology, Healthcare professionals

INTRODUCTION

Telehealth offers nursing, medicine and other disciplines, the opportunity to provide health-related activities at a distance, between two or more locations, through the use of information and communication technologies (e.g., videoconferencing, the Internet, telerobotics).

According to the Canadian Nurses Association (2001), using telehealth technology in nursing is consistent with the philosophy of primary health care and should be part of an integrated healthcare system developed to enhance, not replace, existing healthcare services and to improve access, appropriate use and efficiency of healthcare services.

The National Initiative for Telehealth Framework of Guidelines (NIFTE) was developed in 2003 for clinically-related telehealth activities such as teleradiology, telecare and teleconsultation, and provides guidelines for the following areas:

- clinical standards and outcomes of a service (Clinical Standards and Outcomes)
- professionals involved in providing care (Human Resources)
- organizational requirements (Organizational Leadership)
- technical requirements (Technology and Equipment)

DEFINITION

Telenursing is a component of telehealth that occurs when nurses meet the health needs of clients, using information, communication and web-based systems. It has been defined as the delivery, management and coordination of care and services provided via information and telecommunication technologies (CNO, 2005).

Technologies used in telenursing may include, but are not limited to:

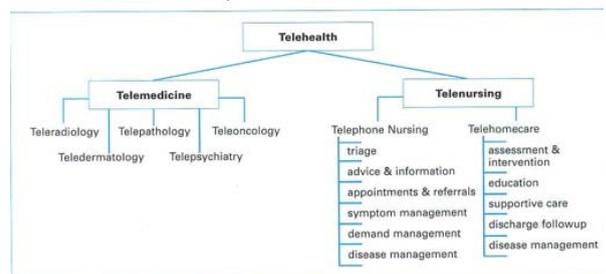
- telephones (land lines and cellphones)
- personal digital assistants (PDAs)
- facsimile machines (faxes)
- Internet
- video and audio conferencing
- teleradiology
- computer information systems
- telerobotics

PRINCIPLES OF TELENURSING

These guidelines are based on the principles of telenursing, which state that effective telenursing should:

- augment existing healthcare services
- enhance optimum access where appropriate and necessary, provide immediate access to healthcare services
- follow position descriptions that clearly define comprehensive, yet flexible roles and responsibilities
- improve and/or enhance the quality of care
- reduce the delivery of unnecessary health services
- protect the confidentiality/privacy and security of information related to nurse-client

Figure 1.
A Schematic of Primary Tele-Terms and Their Relationships to Telenursing



USES OF TELENURSING

- One of the most distinctive telenursing applications is home care. For example, patients who are immobilized, or live in remote or difficult to reach places, citizens who have chronic ailments, such as chronic obstructive pulmonary disease, diabetes, congestive heart disease, or debilitating diseases, such as neural degenerative diseases (Parkinson's disease, Alzheimer's disease, ALS), etc., may stay at home and be "visited" and assisted regularly by a nurse via videoconferencing, internet, videophone, etc. Still other applications of home care are the care of patients in immediate post-surgical situations, the care of wounds, ostomies, handicapped individuals, etc.
- In normal home health care, one nurse is able to visit up to 5-7 patients per day. Using telenursing, one nurse can "visit" 12-16 patients in the same amount of time.
- Telephone nursing is the use of the nursing process to provide care to patients over the telephone.
- Telephone triage is the largest and most recognized component of telephone nursing.
- Telephone nursing services include advice and information, appointments and referrals, symptom management & disease management.
- A common application of telenursing is also used by call centers operated by managed care organizations, which are staffed by registered nurses who act as case managers or perform patient triage, information and counseling as a means of regulating patient access and flow and decrease the use of emergency rooms.
- Telenursing can also involve other activities such as patient education, nursing teleconsultations, examination of results of medical tests and exams, and assistance to physicians in the implementation of medical treatment protocols.
- Telenursing helps patients and families to be active participants in care, particularly in the self management of chronic illness.
- It enables nurses to provide accurate and timely information and support line.
- Continuity of care is enhanced by encouraging frequent contacts between health care providers and individual patients and their families.
- Use videoconferencing to provide continuing nursing education sessions (e.g., College's Telehealth sessions, CNA's NurseONE).
- Assist with client surgeries from a distant site.

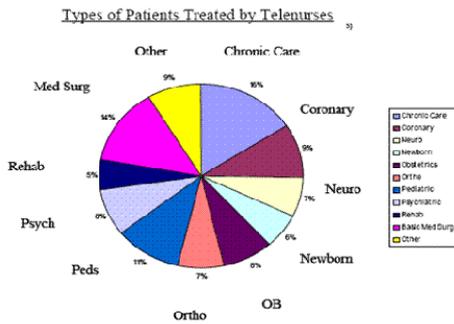


Fig:2

APPLICATION OF TELENURSING

Telenursing applications are available in the home, hospital through telenursing centres and through mobile units. Telephone triage and home care are the fastest growing applications today. In home care, nurses use systems that allow home monitoring of physiologic parameters such as blood pressure, respiratory peak flow and weight measurements, via the internet.

- Collecting data from Patient
- Assessing data using knowledge
- Document all retrieved data
- Utilize critical thinking skills
- Provide nursing interventions
- Continue to monitor and utilize available technology

ADVANTAGES

- Increase public access to health care
- Provide access in rural areas
- Decrease wait times
- Decrease unnecessary hospital visits
- Decrease healthcare costs
- Increase continuity of care
- Increase patient compliance with aftercare
- Transcending miles & borders

DISADVANTAGES

- Decreased face-to-face interaction
- Dehumanizing effects
- Risk of decreasing quality of care
- Equipment malfunction
- Concerns with security
- Concerns with maintaining confidentiality
- Knowledge base of the nurse

COMPETENCY, QUALIFICATIONS AND SKILLS

In general, the competencies required in telenursing practice mirror the competencies required of all registered nurses (e.g., clinical competence and assessment skills in the nurses' area of practice; an understanding of the scope of service being provided). However, registered nurses practising telenursing should also possess:

- personal characteristics (e.g., positive attitude, open-mindedness towards technology and good people skills) that will facilitate their involvement and advance the telehealth program. knowledge and ability to navigate the technology system and environment (e.g., the knowledge and skill to properly operate hand-held cameras, videoconferencing equipment, computers, etc.)
- an understanding of the limitations of the technology being used (e.g., able to determine if vital signs are being monitored accurately by specific equipment)
- the ability to recognize when telehealth approaches are not appropriate for a client's needs (i.e., not 'reasonably' equivalent to any other type of care that can be delivered to the client, considering the specific context, location and timing, and relative availability of traditional care), includes assessment of a client's level of comfort with telehealth (NIFTE, 2003)
- ability to modify clients' care plans based on above noted assessments (NIFTE, 2003)

- awareness of client risks associated with telehealth and willingness to develop back-up plans and safeguards (CRNBC, 2005)
- knowledge, understanding and application of telehealth operational protocols and procedures
- competent enhanced communication skills
- appropriate video/telephone behaviours (NIFTE, 2003)
- awareness of the evidence base for their practice and areas of practice in need of research
- the ability to deliver competent nursing services by regularly assessing their own competence, identifying areas for learning, and addressing knowledge gaps in relation to the area of practice and relevant decision-based software and technology.
- Requisite clinical knowledge for competent telenursing (exam ples):
- Registered nurses employed in a call-centre responsible for triaging health concerns should possess clinical competencies in emergency and/or critical care nursing practice.
- Assessment of the needs of seniors, through the use of in-home video monitoring systems, should be conducted by nurses with expertise in home care and gerontological nursing.

LEGAL, ETHICAL AND REGULATORY ISSUES

All registered nurses have an ethical and legal responsibility to maintain the confidentiality of information they obtain in the context of their professional relationships. As professionals, they are also expected to demonstrate honesty, integrity and respect.

In terms of telenursing, security, confidentiality and privacy are of utmost importance not only in terms of nurses' interactions with clients, but also in ensuring that the technologies themselves are secure (e.g., minimal risk of hacker 'intrusions'). To ensure clients' information remains confidential and private, it is vital that clients' records be adequately protected (e.g., secure in electronic and/or written format). The amount and type of security measures required will depend on the mode of technologies used in telenursing practice (e.g., Internet, e-mail).

According to Gauthier (2008), because registered nurses have a high level of public trust and are held to high standards of professional conduct. She advises nurses to protect client privacy by being cautious when using social networking sites (e.g., blogs, Facebook), and notes that it is not appropriate to share client information unless it is with other members of the healthcare team, for the sole purpose of providing care, and/or the client has given consent.

Organizations and registered nurses providing telehealth services need to be aware of and ensure compliance with, relevant legislation and regulations designed to protect the confidentiality of client information. In many countries, interstate and intercountry practice of telenursing is forbidden (the attending nurse must have a license both in her state/country of residence and in the state/country where the patient receiving telecare is located). Legal issues such as accountability and malpractice, etc. are also still largely unsolved and difficult to address. In addition, there are many considerations related to patient confidentiality and safety of clinical data.

CONCLUSION

As models of care delivery continue to change and new technologies emerge, telenursing practice will continue to evolve. In turn, as the scope of nursing practice further expands, registered nurses will need to ensure that they possess the necessary technical and clinical competencies to practise telenursing safely, competently, compassionately and ethically. To guide them in their practise, registered nurses are encouraged to follow the guidelines provided in this document as well as those in the National Initiative for Telehealth Framework for Guidelines (NIFTE).

REFERENCES

1. Arnaert, A., & Delesie, L. (2001). Telenursing for the elderly. The case for care via videotelephone, *Journal of Telemedicine and Telecare*, 7(6): 311-6.
2. Bohnenkamp, Sk., McDonald, P., Lopez, AM, Krupinski, E., & Blackett, A., (2004). Traditional versus telenursing outpatient management of patients with cancer with new ostomies. *Oncology Nursing Forum*, 31(5), 1005-10.
3. Wachter, G., (2002, May). Interstate licensure for telenursing. *Telemedicine and Telehealth Articles*. Retrieved June 1, 2010
4. <http://www.medscape.com/medline/abstract/15378102>
5. <https://www.ncsbn.org/TeleNursingPaper.pdf>
6. <http://www.tie.telemed.org/articles>