



NURSING MATTERS

Nursing Matters fact sheets provide quick reference information and international perspectives from the nursing profession on current health and social issues.

Telenursing

Advances in telecommunications technologies are revolutionising education and health services globally, including the provision of nursing services. Decreasing time and distance, these advances increase access to health and healthcare, especially to underserved populations and those living in rural and remote areas. They help to manage the demand for services, ensure more effective use of human and health resources and facilitate education and research activities.

What is telenursing

Telenursing refers to the use of telecommunications technology in nursing to enhance patient care. It involves the use of electromagnetic channels (e.g. wire, radio and optical) to transmit voice, data and video communications signals. It is also defined as distance communications, using electrical or optical transmissions, between humans and/or computers.¹

Telenursing is not new. In some settings nurses have provided health information and nursing advice over the telephone for decades. It is, however, a quickly expanding service. Teledelivery of health promotion and disease prevention services, as well as nursing diagnosis, treatment and education are developing rapidly. While Western countries have seen the greatest expansion to date, developing countries are also benefiting from teledistance technologies.

Special licensure and certification are not usually required but systems need to be in place to ensure the delivery of safe practice and quality of care. The physical separation from the patient may make it more difficult to establish a therapeutic relationship and require nurses to develop enhanced communication skills as well as technological competency.

Applications

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, blood glucose, respiratory peak flow, and weight measurement, via the Internet.

Through interactive video systems, patients contact on-call nurses any time and arrange for a video consultation to address any problems; for example, how to change a dressing, give an insulin injection or discuss increasing shortness of breath.² This is especially helpful for children and adults with chronic conditions and debilitating illnesses, particularly those with cardiopulmonary diseases.³

Telenursing helps patients and families to be active participants in care, particularly in the self-management of chronic illness. It also enables nurses to provide accurate and timely information and support online. Continuity of care is enhanced by encouraging frequent contacts between health care providers and individual patients and their families.

Telenursing and Home Care

- In the United States, employment in home health care is expected to increase 36% or more over the next 7 years.⁴
- In the United States almost 46% of the on-site nursing visits could reasonably be replaced by Telenursing.^{5, 6, 7, 8}
- In the United Kingdom 15% of in-home patient care episodes reported the need for telecommunications technology.⁹
- In the United States, substituting half or more of the traditional home visits with TeleHomecare visits, agency costs can be cut in half.¹⁰
- Studies in Europe suggest that a large number of patients could benefit from in-home telecommunication services.¹¹

Telenursing is cost effective in reducing the requirement for, or the length of, hospital stays; in increasing access to services to widely dispersed populations; and in expanding high-quality home care services. In Denmark, where nurses working in an outpatient clinic for people with back problems maintained regular telephone contact with patients, the number of hospital admissions and 'bed days' was reduced by half¹². In Iceland, with its widely dispersed population, a telephone based nursing intervention to support mothers with difficult infants reduced fatigue and distress¹³. Innovative programmes use telenursing to allow women with pregnancy-induced hypertension to remain at home.¹⁴

Cost-effectiveness

- More timely information to patients and families reduces the use of expensive health care services (physician's office, emergency units, hospitals and nursing homes).
- Limited resources can benefit a large population spread over a broad geographical region.
- Telenursing can reduce the requirement for, or the length of, hospital stays.
- Adults with chronic conditions who need frequent monitoring, assessment, and maintenance but do not meet home care criteria or have no money to pay for services can benefit from technology.
- The result is a decrease in total health care costs and increased access to health care with more appropriate use of resources.

(Source: Britton, Keehner, Still & Walden 1999)

Clinical information can be shared with other professional colleagues including national and international experts. A nurse in Northern Ireland established a telenursing scheme for patients with leg ulcers resulting in improved quality of service for patients on both sides of the Irish border and the development of enhanced nursing roles.¹⁵

The new technologies also increase access to nurse education, particularly continuing education. Examples include teaching off campus, video-conferencing, online learning and multi media distance education. Clinical skills can be learned and practiced through patient simulation modelling.¹⁶

Telenursing provides opportunities for mature nurses to bring their years of experience back to the clinical arena without enduring the physical burden of 'floor' nursing in hospitals.

The use of technology has shaped the development of ICNP®, a long term project that will provide a structured terminology and a classification that can be used to describe and organise nursing data, which can in turn be integrated into multidisciplinary health information systems.¹⁷

Issues

In providing care from a distance policy makers and practitioners need to ensure that there are appropriate systems in place for the regulation of practice and practitioners; policies and standards to ensure safe, professional and ethical practice; and security, privacy and confidentiality of information.

Telenursing activities need to be integrated appropriately into the overall policy and strategy for the development of nursing practice, the provision of nursing services, and the education and training of nurses.

For further information, please contact: icn@icn.ch

The **International Council of Nurses (ICN)** is a federation of more than 130 national nurses associations representing the millions of nurses worldwide. Operated by nurses and leading nursing internationally, ICN works to ensure quality nursing care for all and sound health policies globally.

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- ⁹ *Supra*, note 6.
- ¹⁰ *Supra*, note 4
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¹⁵ Moore. A., (2001) Cross Border Care Nursing Standard Vol. 16 (9) 14 November 2001

¹⁶ *Supra*, note 2.

¹⁷ International Classification of Nursing Practice <http://www.icn.ch/icnp.htm>

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