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Leadership Strategies for Improved Nursing Synergy between Informatics and Telehealth

Claudia C. BARTZ[1]
International Council of Nurses, Geneva, Switzerland

Abstract. The goal of best practice, best possible health care worldwide is shared by nurses and all involved with eHealth today. The purpose of this paper is to characterize the similarities and differences between informatics and telehealth from a nursing perspective, and to advocate for leadership strategies that would bring the strengths of each group to a more synergistic, collaborative professional model for the benefit of both groups. After comparing telehealth and informatics nursing and looking for commonalities, suggestions are made for bridging the gap between the two groups. Potential strategies include identifying leaders, using conflict avoidance techniques, and pursuing coaching and mentoring opportunities across the gap to enhance the professional standing and contributions of both groups. An added consideration would be to have joint conferences wherein the strengths, challenges and knowledge repositories of informatics and telehealth could be mutually appreciated.

Keywords. eHealth, leadership, collaboration

Introduction

eHealth is the use of information and communication technologies (ICT) for health. Examples include treating patients, conducting research, educating the health workforce, tracking diseases and monitoring public health [1]. The eHealth construct includes both informatics and telehealth. Informatics is a broad academic field encompassing computer science, human-computer interaction, information science, information technology, algorithms, areas of mathematics (especially mathematical logic and category theory), and related social sciences [2]. Telehealth can be defined as the delivery of health-related services and information via telecommunications technologies [3]. Telehealth encompasses disease prevention, health promotion, care delivery for cure and palliation, and education.

Nurses are fully engaged in both informatics and telehealth and many nurses have taken leadership roles in their chosen area of emphasis. While nurses in both areas ultimately have the same goals, those being health care that is of good quality, accessible, affordable and with optimal outcomes, the pathways to those goals are quite different. The purpose of this paper is to characterize the similarities and differences between informatics and telehealth from a nursing perspective, and to advocate for

[1] Claudia C. Bartz. ICN eHealth Programme Coordinator, International Council of Nurses, 3 place Jean-Marteau, Geneva, Switzerland, CH-1201; E-mail: cbartz@uwm.edu.

leadership strategies that would bring the strengths of each group to a more synergistic, collaborative professional model for the benefit of both groups, in order to contribute to improved health care worldwide. The paper supports the NI2014 goal (http://www.ni2014.org/AbstractsInformation.html) of advancing nursing informatics leadership and professional development.

1. Telehealth Nursing

Telehealth nursing leverages information and communication technology (ICT) to extend the capability of nurses with the aims of improving access and quality, and managing costs [4]. While the use of technology changes the care delivery medium, and may necessitate new competencies, the nursing process and scope of practice are not significantly different in telenursing [5]. Telehealth nursing is practiced in almost every conceivable field of nursing from neonatal care to palliative care and from aiding people needing health promotion to caring for those with the most complex needs for care. This very wide range for practice is both the beauty and the challenge of telehealth nursing as nurses work toward characterizing it and understanding the social, economic, political, legal and ethical implications of its practice.

In addition to country-based associations, international organizations such as the International Council of Nurses (ICN) and the International Society for Telemedicine and eHealth (ISfTeH) have recognized the importance of telehealth nursing with designated groups for nursing. The ICN Telenursing Network has more than 250 members representing over 60 countries (http://www.icn.ch/networks/telenursing-network/). The Network provides a global forum for telenursing in the context of a federation of national nurses associations. Its goals are to serve as a global resource for nurses, promote effective networking and linkages, and enable the sharing of telenursing knowledge and expertise across the globe. The Network meets biennially at the ICN Conferences and Congresses. The ISfTeH Telenursing Working Group (http://www.isfteh.org/working_groups/category/telenursing) has 51 members representing 21 countries. The Working Group provides an interdisciplinary forum in which nurses can exchange knowledge and experience with other health care providers who are working with or supporting the use of eHealth applications through biannual, interdisciplinary meetings and an online journal.

Nurses have always been technology adaptors for their practice, always with the health needs and care delivery expectations of individuals, groups and communities foremost. The reality is that people with chronic disease or acute illnesses who live in a remote area, or who are near to care sites but are economically or socially remote, can all receive home care, home monitoring and education for self-management from a nurse using telehealth technologies and strategies. In addition to direct care roles, telehealth nurses include educators, researchers and nurses in industry, government and non-governmental organizations.

2. Informatics Nursing

Several often-referenced definitions for nursing informatics have been proposed in the last three decades, all using a concept-based foundation. Essentially, nursing informatics is described as a specialty based in nursing science, computer science, and

information science to manage and communicate data, information, and knowledge in nursing practice [6], [7]. A definition by the International Medical Informatics Association (IMIA) – Nursing Informatics Special Interest Group (IMIA-NI SIG) states that nursing informatics science and practice integrates nursing, its information and knowledge and their management with information and communication technologies to promote the health of people, families and communities worldwide [8]. A fourth major concept, wisdom, was suggested as an addition to the definition concept set, depicting more completely the intellectual and practical processes moving from data to information to knowledge to wisdom [9].

As a nursing specialty, nurses with an interest in computer and information science can pursue graduate education in informatics. While generally not direct care providers, informatics nurses contribute to an important second-layer of health care delivery in developing health information systems, electronic health records and terminologies for documentation. Informatics nurses are also educators and researchers, contributing to nursing expertise and capability and also to the body of knowledge about care delivery systems that integrate information and communication technologies with health care quality and positive outcomes as unifying goals. Informatics nurses are also found in industry, government and non-governmental organizations.

In addition to many country-based nursing informatics organizations or special interest groups within organizations, the IMIA-NI SIG (http://www.imia-medinfo.org/new2/node/151) represents nursing internationally. The focus of IMIA-NI is to foster collaboration among nurses and others who are interested in nursing informatics to facilitate development in the field. The SIG aims to share knowledge, experience and ideas with nurses and healthcare providers worldwide about the practice of nursing informatics and the benefits of enhanced information management. The IMIA-NI SIG has 28 society (formerly country) representatives and several observer members and meets annually at related informatics conferences.

3. Commonalities between Informatics and Telehealth Nursing

Informatics nurses and telehealth nurses have common issues on which collaboration could be useful, both for addressing the issues themselves and for expressing a stronger voice from nursing across the eHealth community and beyond. For example, the privacy and security of health-related data is of great concern to most people involved with telehealth and informatics. Even with data sets from different sources, for example, from individual patients receiving care at a distance to thousands of electronic health records held in repositories, the ability to acquire, use and store those data in such a way as to meet comprehensive ethical and legal standards continues to raise great concern among clinicians, educators, researchers and managers.

Cross-border licensure stipulations and recognition of accreditations and certifications represent another common issue for nurses. Telehealth nurses may have experienced the dilemma of restriction of practice based on licensure sooner than informatics nurses. For example, the establishment of eICUs, where nurses at a central location may ‘work’ at ICUs in other states or territories, means that licensure boundaries must be addressed. However, informatics nurses may become more concerned about where they are licensed to practice as they become more involved in health information systems design and acquisition, often for multi-site, multi-state or international organizations. Also, nurse educators are teaching more international

students in both telehealth, which is integrated with the course offering, and informatics, which maybe be integrated but may also be a separate informatics course. Educators therefore have a responsibility to ensure that students have full knowledge of their own scope of practice and parameters of licensure for their place of work. Students in a class or a course might represent any number of countries and might seek knowledge about telehealth, informatics or both as part of the learning process.

The nursing community has for some time emphasized the development of standards and competencies for various levels and areas or specialties of nursing practice. The American Nurses Association has published Nursing Informatics Scope and Standards of Practice [10] which includes some information about telehealth nursing. A new edition is under preparation at this time, demonstrating the steady evolution of the informatics specialty and its community of practice. The section of the book on the scope of nursing informatics practice has sub-sections on the boundaries and tenets of nursing informatics as well as ethics in nursing practice. These sections would be very useful in informing joint discussions between informatics nurses and telehealth nurses about the data security and cross-boundary issues discussed above.

The International Council of Nurses has published International Competencies for Telenursing [5] and International Professional Standards for Telenursing Programmes [11]. These documents are also in the process of being updated with the aim of guiding current practice and anticipating the issues and expectations for future practice. The telenursing competencies, [5] which address the topics of professional, ethical and legal practice; care provision and management; and professional development, have substantive material that could serve to inform the standards of practice and standards of professional performance for informatics nurses. And, although the telenursing standards [11] were written for programme development and evaluation, there are concepts and definitions for terms that could also inform the nursing informatics standards of practice and standards of professional performance.

Informatics nurses and telehealth nurses attend national and international multi-disciplinary conferences targeted at their own areas of practice. However, while most conferences have some content in the 'other' practice area, they cannot be considered joint or even co-located conferences.

4. Leadership for Bridging the Gap between Telehealth and Informatics Nursing

Leadership is a multi-faceted capability. Leaders are fully occupied with ensuring that others are successful and productive. The leader label is the least of a true leader's concern. Leaders establish an environment of trust, open communication and clarity about the ethical standards, goals and boundaries of the organization. Boundaries might include resource allocations and decision-making responsibilities. A leader shows respect, courtesy, tolerance, flexibility and readiness to learn. A leader is humble and willing to do any job in the organization.

A well-led group, with all members on the learning curve to become good leaders themselves, will demonstrate the ability to resolve differences and conflicts. As noted above, informatics nurses and telehealth nurses have differences in their education, practice and self-concept, with nursing informatics considered a specialty and telehealth nursing including nurses in any specialty who have added ICT-supported capacity for care delivery and education. An effort to bring the two groups of nurses together for the purposes of learning from each other, and using and extending each

other's body of knowledge, seems to be warranted in the spirit of professional collaboration and advancing nursing worldwide.

While the two groups of nurses under consideration in this paper are not in conflict *per se*, conflict resolution strategies [12], [13] might be considered as a catalyst for closer collaboration. For example, good communication skills are important in face to face interactions and, possibly even more important, in electronic communications. In face to face communication we rely to a great extent on nonverbal cues to help to ensure that we understand what is being said. With electronic communication, the essential nonverbal cues such as tone of voice, facial expression and body positioning are lost to us. We may or may not "hear" the real meaning of what is said electronically.

Another strategy for group success and avoidance of conflict would be to agree on a common goal, or goals, and on ground rules for discussion as a foundation for starting the work. The group should be the right size and include only those participants who are willing to address the business at hand. This would include willingness to work outside the group meetings if that is deemed necessary for goal accomplishment. As sessions (for example, meetings, conference calls) are underway and reach a conclusion, an important strategy during closure is to ensure that actual or potential conflicts that may have arisen during the session are addressed and resolved before they grow into something much worse. It is also important, as the session ends, to review the essence of the discussions and the decisions that have been taken. Good leaders are good meeting managers.

Leaders should also demonstrate and encourage coaching or mentoring at all levels of the organization. In general, coaching might be considered to be specific to the work environment while mentoring is supposed to be more serendipitous, where a more experienced person takes on a protégé with less experience and with the dyad not necessarily being in the same work setting. Nurses have traditionally recognized the important of coaching and mentoring other nurses in or outside of work settings.

The overall acceptance of the goodness of mentoring presents a great opportunity for telehealth nurses and informatics nurses who are willing to be mentors or coaches. This might occur within one's practice community. Or, telehealth nurses might reach out to informatics nurses and informatics nurses could reach out to telehealth nurses, with one being the mentor and one the protégé, depending on knowledge and skill levels and the purposes or goals of the partnership. This is not to imply that informatics-telehealth dyads, which could range from novice collaborators to expert collaborators, might not also benefit from a purposeful partnership.

The potential for infusing each other's practice area with new knowledge and new avenues for exploration are without limit. A physician who is an experienced, successful surgeon took on a coach during his surgeries and described his experiences [14]. Among his conclusions were the recognition that coaches are your outside ears and eyes since they are able to break performance down into its parts, and that coaches let the learner set the direction while getting the learner to think things through. Nurses can learn from these observations, whether they are in a coach-learner dyad, a mentor-protégé dyad, or in collaboration with someone at a parallel level.

A last consideration for leaders who seek to bridge the informatics-telehealth gap would be to think about conferencing jointly. In our own experiences, we may have found that conference speakers are telling us what we already know about our area of practice. The eHealth community is so large and complex, it may be worth opening communication channels as wide as possible. Again, the ultimate goal would be

improved health across the globe. The next gap to bridge would then be to bring consumers and citizens more fully into the health care communities' deliberations and learning opportunities.

5. Conclusion

Telehealth nurses and informatics nurses have a great deal to learn from each other about the technology explosion underlying today's health care environment worldwide and the immense potential for advancing the accessibility, care delivery quality, care outcomes, and data for knowledge development. Perhaps the greatest wisdom would be for nurses in these fields to work collaboratively to advance professional nursing and to ensure that nursing is and continues to be a strong voice in the world of eHealth.

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