Experiences of integrating informatics for nursing faculty & students: Program evaluation snapshot

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Background

❖ Today, technology plays a significant role in education and nursing practise in dynamic health systems (O'Connor & LaRue 2021).

❖ It is crucial for nursing students to be competent in using information and communication technologies (ICTs) in the workplace upon graduation (Harerimana et al., 2021)

❖ Informatics content should span all levels of nursing education, ensuring full integration throughout the course of the degree (Knox, 2019)

❖ Given the role of faculty members in the imparting of knowledge to students, it is important to explore their experiences in integrating nursing informatics to support learning and competency integration.

Purpose

The aim is to obtain a snapshot of the perceptions of nursing students, new graduates, and faculty members on their experiences about the use of nursing informatics in one nursing program.

Frameworks

The interview guides were developed based on Canadian competencies.
The Canadian Association of Schools of Nursing (CASN) determined entry level nursing informatics competencies for graduates:

❖ Using relevant information and knowledge to support delivery of evidence informed patient care

❖ Professional and regulatory accountability in the use of ICT

❖ Information and communication technology use in the delivery of patient care

Significant statements and quotes were mapped to the Core Informatics Competencies (O'Connor & LaRue, 2021)

Method

❖ Population of interest is the faculty (n=7), students (n=5), and new graduates (n=1) from SCBScN.

❖ Ethics exemption from the University of Regina Research Ethics board.

❖ Recruitment through email and word of mouth

❖ Provided consent form for information, verbal consent at interview

❖ Semi structured open-ended interview of 30-45 minutes each

❖ Interview was transcribed using otter.ai

❖ Competencies as codebook for thematic analysis approach

Core Informatics Competencies as Themes

❖ **Faculty**	❖ **Student**	❖ **New grad**

Health Service Literacy

❖ Bring faculty & students together to learn in an evolving technological environment

❖ "Critical to have a policy when you do anything. Especially as a new grad. […] Protect your license because then you can go back & say this is exactly what I did per [unit] policy."

Information and Communication Technology Literacy

❖ Hands on practice on the use of tools like fetal heart monitor, bladder scan, IV pump and blood glucose monitor

❖ "Taught from 2nd year, use the intranet, access nursing procedures & relying on things like nursing central, accessing our digital chart to look at lab results, different consultations, physician notes, things like that. I'd say that's pretty good." (Year 3)

Information Management

❖ Creative ways of incorporating ICT into learning such as zoom for classes, virtual simulation laboratory, and voice recording of patient assessment.

❖ "Go look something up, take longer, and be safe rather than just rush through something without looking it up. Your license could be at risk"

Information Systems Literacy

❖ Using nursing informatics as a health teaching tool for patients e.g social media as a knowledge dissemination tool

❖ "The first thing I think of is computer and what I can access at work"

Information Systems Management

❖ Students using google docs in data collection and analysis in community settings

❖ "[With] electronic charting, you don't need a lot of paperwork and it's much cleaner. And you can have very quick access too. Instead of going through hundreds of papers and just looking for like one answer from the entire [chart]" (Year 1)

Patient/citizen Digital Health Literacy

❖ "For our patients, things are pretty much shifting online so everybody should be up to date and should know how to do that easily. We can always be connected with our patients and connect with other healthcare professionals as well. (Year 3)

❖ "We need to accept that cell phones are probably not going anywhere. And we can use it to help [with] patient care and be safe. Instead of [seeing it] as a negative."

Recommendations

The following are the recurring suggestions from faulty members

❖ Continuing education for faculty members on nursing informatics

❖ Incorporating nursing informatics into various aspect of the curriculum

❖ Flexibility in curriculum to accommodate emerging nursing informatics

❖ Adopting nursing informatic as an approach to teaching

❖ Implementing more teaching about digital chart in clinicals + refresher courses at the start of semesters

❖ Making an informatics elective course that goes more in-depth

❖ Encouraging use of devices in clinical for research purposes

❖ Teaching about nursing procedures, Lexicomp, Nursing Central and their relevance to clinical practice

❖ Consider electronic charting
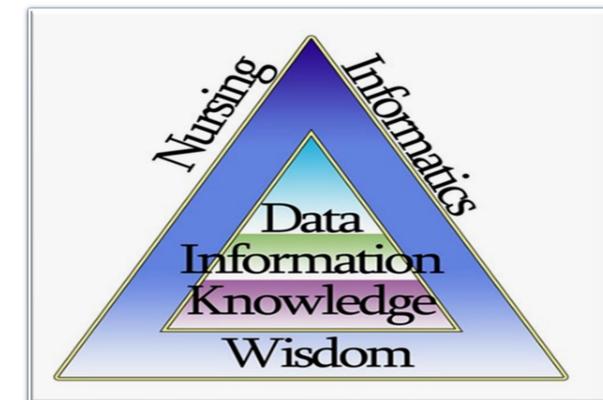
Implications for Nursing Education & Practice

❖ Student are better equipped and confident in clinical settings

❖ More student developed interest to participate in nursing informatics research

❖ Despite headway in use of technology, graduate noted much of learning was during preceptorship and on the job

❖ Curriculum does well earlier in the program, but more integration during clinical, applicable to future nursing practice would be helpful

Future Research

❖ Exploring the role of digital health in nursing education

❖ Introducing students to virtual reality and artificial intelligence in nursing

❖ Bridging the access gap for northern communities with limited access to internet

❖ Partnering with nurses in the designing of technology for clinical use

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