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#### ARSTRACT

Nursing and Midwifery involvement in advancing the eHealth agenda is variable across member states within the European Union. Across the European Union, citizens are increasingly considered as consumers of health care with the reorientation of health care services to be less rigid, more flexible and service orientated. There is a growing realisation that technology adoption relating to health and social care is increasingly viewed as a complex process and requires focused attention. The aim of the study is to show that the profession of nursing and midwifery has in deployment of technology within health and social care.

A core requirement of integrated care is the need for an agreed standardised language to facilitate shared electronic health records.

Problemy Pielęgniarstwa 2017; 25 (2): 112-115

Key words: nursing informatics; ICNP®; electronical health record; nursing

## **STRESZCZENIE**

Zaangażowanie pielęgniarek i położnych w rozwój programu e-zdrowia jest zróżnicowane w państwach członkowskich Unii Europejskiej. W całej Unii Europejskiej obywatele coraz częściej uważają się za konsumentów opieki zdrowotnej, a reorientacja usług opieki zdrowotnej jest mniej sztywna, bardziej elastyczna i zorientowana na usługi. Coraz większa jest także świadomość, że adoptowanie technologii w odniesieniu do opieki zdrowotnej i społecznej jest procesem złożonym i wymaga większej uwagi.

Wykazano rolę, jaką pielęgniarstwo i położnictwo pełni we wdrażaniu technologii w zakresie opieki zdrowotnej i opieki społecznej.

Podstawowym wymogiem zintegrowanej opieki jest potrzeba uzgodnionego standardowego języka w celu ułatwienia współużytkowania elektronicznych kart zdrowia.

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Słowa kluczowe: informatyka pielęgniarska; ICNP®; elektroniczny rekord pacjenta; pielęgniarstwo

### Introduction

Caring for the digital patient presents a number of challenges for health care professionals as technology can potentially impact as an inhibiting force in health and social care delivery. Described as an individual who retrieve information about health and health related services online, the digital patient is

empowered by using smart and mobile technology as a part of their everyday routine to manage their health and well-being.

Recent critical discourse on the use of technology in society argues the case that being connected with technology is increasingly defining who we are rather than what we do [1]. In other cases technology is

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seen as an enabler providing real time access to information, and in the case of health service delivery, informing clinical judgement and decision making at the critical point of care. Irrespective of whether technology is seen as an enabling or inhibiting force, there is a growing realisation that technology adoption relating to health and social care is increasingly viewed as a complex process and requires focused attention.

In this short paper we consider the role that the profession of nursing and midwifery has in deployment of technology within health and social care. We call on nursing leaders to instigate education and training on readiness for engagement providing some early examples of activity currently underway in Ireland through a research and development centre for the International Classification for Nursing Practice (ICNP®) [2].

### **Main Body**

The World Health Organisation (WHO) in 2016 calls upon health administrators and nurse leaders to consider building services which embed an integrated care framework to address issues such as fragmentation of care and over medicalised models of care. Providing specific resources such as a toolkit for eHealth, the WHO recommend developing strategic plans with associated operational principles to create an enabling environment for transformation of existing health care models to integrating electronic health records and smart and mobile technologies [3, 4]. Across the European Union, citizens are increasingly considered as consumers of health care with the reorientation of health care services to be less rigid, more flexible and service orientated. For example, the European Health Consumer Index (EHCI) provides an analysis on forty eight key indicators from thirty five countries on topics relating to access to care for service delivery and patient rights, many of which can be associated with the use of technology [5].

Nursing and Midwifery involvement in advancing the eHealth agenda is variable across member states within the European Union [6]. Considering reports such as the EHCI in conjunction with the professions established role in patient advocacy would suggest that a sustained and focused response is warranted. We argue the case for nursing and midwifery to continue with a proactive and sustained approach to participation in eHealth deployment by using a number of strategic methods including targeted stakeholder engagement.

First principles of engagement in transformation activity is education and training, building a clear understanding of how technology can be used effectively and efficiently for service innovation and that management change is critical to motivate key stakeholders. Translation of how technology can be used in health care and specifically within nursing and midwifery is closely aligned to nursing informatics. Nursing informatics is a specialist domain, which is defined by the International Medical Informatics Association Nursing Specialist Group as follows.

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 world communities.

Definition of Nursing Informatics; IMIA NI SIG 2009 [7]

This paper provides an insight on the process of engagement within one research and development centre in Dublin Ireland. In collaboration with the International Council of Nurses (ICN®), a research and development group was established for ICNP® in Ireland. This centre is entitled the Dublin City University (DCU) School of Nursing and Human Sciences (SNHS) International Classification for Nursing Practice (ICNP®) User Group [8]. In the partnership with the National Nursing Agency in Ireland the Irish Nurses and Midwives Organisation (INMO), the centre was developed in 2016 and provides a research and development hub for ICNP® in Ireland. Since its development, this user group has been involved in a number of inter related working group activities, however, in this paper we report solely on the education and training activities completed to date.

One focus within the centre has been agreed to create a space to advance scholarship on activities relating to nursing informatics and eHealth. Supporting an organisational culture which provides knowledge sharing on eHealth activity, we developed a number of workshops and modules relating to the topic of eHealth. These resources were designed to use them across the continuum of education from foundation level for graduate practicing nurses to undergraduate, masters and PhD level. Core themes within the educational resources include raising awareness on management for change within health and social care, advocating and strengthening nursing participation on information and systems design and deployment using ICNP®. Some examples are now provided from the suite of educational programmes we now offer.

At foundation level two workshops have been created for delivery in the National Nursing Agency Professional Development Centre, one of which included the following learning outcomes:

- 1. To provide nurses and midwives with foundation concepts on nursing informatics.
- 2. To familiarise nurses and midwives with available resources for future professional development.
- 3. To describe how nursing informatics will impact the role of the nursing from both a national and international perspective.
- To provide nurses and midwives with an overview of global and national eHealth activity and how it can impact nursing and midwifery practice.

Until now, this day workshop has been delivered via the professional development centre within the National Nursing Agency, the Irish Nurses and Midwives Organisation with positive evaluation from participants. Participants reported that in relation to the foundation concepts on nursing informatics they had little understanding of their translation to practice. The education programme provided an insight into the importance of informatics to deliver contemporary nursing care and enhance the quality of care in an effective and efficient manner.

At the undergraduate level students undertaking a level 8 honours degree in nursing BSc were offered an option module on nursing informatics. Students from this programme were invited and recruited as interns within the centre in summer, 2016 to develop online resources for students on eHealth and Informatics. Resources developed by students are available to view on the centres website [8].

At the postgraduate level an internship was also provided to practice nurses engagement in a Masters in nursing practice post graduate education to map existing nursing assessment documentation to ICNP®. In addition, a new module has been written and approved for the post graduate framework and this module will be offered for entitled Informatics in autumn this year in eHealth. Learning outcomes from this module include:

- 1. Description of the characteristics of eHealth usage, methods and its impact on health and social care service provision.
- 2. Demonstration of knowledge, skills and attitudes on how health informatics and its associated theory can support the delivery of eHealth across the continuum of care.
- 3. Critical review of the application and use of eHealth resources and associated technologies in accordance with professional and regulatory standards and workplace policies.
- 4. Design and exploration of the studies to address health issues where problem solving analysis could provide eHealth innovations as part of a solution for promoting health and wellbeing.
- 5. Evaluation and report on how eHealth resources impact health care delivery and patient /client outcome.

Finally at PhD level two students are registered within the centre and are researching on national eHealth related topics. One student is engaged in development of nursing metrics and is exploring the role of information access for nurse administrators. This study is focusing on the use of clinical dashboards within healthcare in acute services at both a regional and national level. The overarching focus of the dashboard is patient safety.

The second student is engaged in targeting eHealth programmes for healthy aging. Presenting at the IMIA NI SIG conference in 2016 a chapter was subsequently published which provides examples of how the role of the Advanced Nurse Practitioner in Ireland can present a strong action learning model to deliver eHealth educational programmes for effective healthy aging in place [9].

### **Conclusions**

This purposefully established ICNP® centre provides scholarship for nurses and midwives in Ireland on nursing informatics competencies, specifically in relation to readiness for engagement in addressing integrated care and the eHealth agenda. A core requirement of integrated care is the need for an agreed standardised language to facilitate shared electronic health records. This centre provides a springboard to practicing nurses on why the profession needs to use standardised language within nursing documentation practices using ICNP® as the reference terminology of choice. It considers critical concepts to articulate the nursing contribution on assessment for patient centred care. A full review of the centres activity can be viewed on the following website [8].

There is an old Irish quote which says that education is not the filling of a pail, but the lighting of a fire. This quote is considered relevant and apt as we engage in a comprehensive reorientation of health and social care for delivery of quality orientated patient centric models. Recent evidence reports that the average European spends approximately five and half hours a day withdigital media, checking their mobile phones every 4.3 minutes or 221 times a day [1]. It is perhaps timely, therefore, to reflect how such social changes in communication within society will impact future nursing services and specifically their relationship with the digital patient.

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