Integrated Curricula in Nursing Education

Bettina Staudinger
University of Health Sciences, Medical Informatics, and Technology, Austria

Herwig Ostermann
University of Health Sciences, Medical Informatics, and Technology, Austria

Roland Staudinger
University of Health Sciences, Medical Informatics, and Technology, Austria

INTRODUCTION

The field of nursing is presently subject to keen changes and these processes of change are determined by different variables. On the one hand, stringent cost pressure is being exerted on all western health systems from which an increased need for transparency, measurability, feasibility, and design potential is derived, and on the other, the nursing sciences are academically a highly prospering field at the moment. Within the nursing sciences, efforts for standardisation, process design, quality assurance, and evidence-based nursing are currently being made. Putting these two currents together, it is almost inevitable that the relevance of nursing informatics (NI) increases and not just because a greater need for IT tools has arisen through increasing digitalisation of the nursing process in applied nursing. This has two consequences. First, the nursing staff—irrespective of whether they are still in training or already practicing—has to deal increasingly with nursing informatics and nursing IT tools and learn how to put this into practice. Second, the specifications of knowledge transfer have to be considered within the nursing sciences if this process is to be successful. This means that IT tool application programmes cannot be restricted to acquiring particular functionalities, rather it revolves around the observation and organisation of actual nursing scientific knowledge transfer. If one desires to approach the topic of integrated curricula in nursing education, then the focal point surely lies in the perspective of integration. The combining of IT tools, nursing scientific knowledge transfer, and applied nursing portrays a necessity. Alternately, the term 'nursing education' is a broad one. It concerns vocational and academic training as well as the interactive element between applied nursing and the nursing sciences.

BACKGROUND

Through standardisation and the thereby feasible digitalisation of the nursing process, the specialist area of nursing informatics is beginning to take up more and more room within the nursing sciences. Against this background, we have to ask the question of the necessary knowledge transfer actually between the nursing sciences and applied nursing and also of the training of practicing nurses in the area of nursing informatics. Looking at international programmes which are supposed to train practicing nurses in the use of nursing IT tools, the national orientation of these programmes can be noticed. For example, a nursing informatics group from the University of Sao Paolo in Brazil was formed in 1990 which developed a multilevel top-down programme in the training for nursing informatics. Beginning with the integration of NI into doctorate programmes, a broad-ranging trainings concept was then developed (Marin, 1998). Similar national strategies were carried out in other countries and the USA in particular took a leading role (Herbert, 2000). Even early on, the need for skills in the branch of NI for nurses had been worked on by scientists (Adam, 1996) and the dimensions of NI defined (Simpson, 1999). Practically all academic schools of nursing now offer wide IT training programmes (Nursing Informatics Programs, 2007). On the one hand, the training refers to specialists in the branch of nursing informatics who create data organisation and knowledge transfer (Graves & Corcoran, 1989), and on the other, the programmes attempt to familiarise practicing nurses with the IT tools and support and further develop the nursing scientific information process (Staggers, Gassert, & Skiba, 2000). In Europe, these training programmes are also being increasingly developed and offered. In Finland for

example, a programme for the technologically orientated training of nursing instructors has been scheduled {7} and in Denmark it is being attempted to combine informatics and pedagogics in a special programme {8}. The particular challenge in the branch of nursing informatics and knowledge transfer in nursing is the fact that a notably broad field for knowledge transfer in nursing science has been opened due to standardisation processes. However, we must observe that the gaining of knowledge in nursing is not exclusively one-dimensional. It is rather more a transfer process from science into practical experience and vice versa. Also, when considering the question of this knowledge transfer which concerns both nursing scientific findings and nursing informatics skills, it is not just the trainee nurses who are the main focus, but also the nurses who are already practicing (Bakken, 2001).

NURSING PROCESS AND KNOWLEDGE TRANSFER VIA ICT

The Nursing Theory-Practice Gap

An important question posed by knowledge transfer within nursing systems is that of the theory-practice gap as described in nursing science (Staudinger, 2006). Here it is about the problem of how the findings of nursing science are to be implemented in practice.

Within the subsequent consideration, the question is primarily posed to the requirements for the transmission of scientific findings into nursing practice. We can see this as a question of process-oriented operation quality and the application of a possible knowledge transfer (McDaniel, 2003).

It is striking that the fact that this 'gap' exists has not been challenged in newer literature. Rather, practically all significant authors presume the existence of this gap and develop—according to their viewpoint—various theories for the solution of the problem. This problem, however, is principally discussed in context with knowledge transfer within the framework of nurse training. The European Union Advisory Committee (1989) has also taken on this problem.

In the introduction, the committee states, 'The Advisory Committee on Training in Nursing had recognised that in all member states there is a gap between the theoretical and practical aspects of several training programmes for general nursing.'

In the justification and presentation of the facts within the guidelines, the committee concentrates on the discussion taken up by Anglo-American and English nursing scientists.

In the presentation of the facts, six points are listed which are given as the cause of the gap between practice and theory. It is noticeable that this reasoning shows considerable restraints to current nursing literature on this topic and does not concern itself at all with the structure quality of knowledge transfer from science to practice. Rather it refers to the form, content, and social status of teachers and students of nursing schools[1] .

Already in the early nineties one can find the perception that methodical knowledge transfer has to be awarded new significance (Hawkett, 1990) even if the nursing professions are practice-orientated and important learning processes take place in practice (Rafferty, 1992).

For nursing informatics, this means that information or gaining of knowledge from practice has to take a systematic reflex into consideration, either in the nursing sciences or in generally accessible sources of information (Bemmel & Musen, 1997).

Larsen, Adamsen, Berregaard, and Madsen (2002) have presented an important study regarding this problem. In their study, the authors examine the relationship between the academic nursing sciences and applied, practice-orientated nursing on the basis of social scientific methods. The focus of the study was placed on the knowledge and essential content of the various approaches and formulated the statement that nursing science 'has the right' to develop academically based knowledge irrespective of the practicability on operative levels, and vice versa, practice-orientated nursing has a justified autonomy in connection with the generation and dissemination of practice-orientated 'know-how.'

Clinical nursing is defined among other things by the fact that the members of the nursing profession would learn from each other and therefore would become 'active producers' of relevant nursing scientific knowledge admittedly based on other methods, than is the case in academically orientated nursing.

The authors therefore assume that there is no gap 'per se' between theory and practice, rather it has to be examined which orientation and self-image is predominant in theory and practice with respect to the question of the gaining of knowledge and which barriers have to be overcome on exchanging knowledge.

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