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What we know and what they do: nursing students' experiences of improvement knowledge in clinical practice

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Summary Nations around the world face mounting problems in health care, including rising costs, challenges to accessing services, and wide variations in safety and quality. Several reports and surveys have clearly demonstrated that adverse events and errors pose serious threats to patient safety. It has become obvious that future health professionals will need to address such problems in the quality of patient care. This article discuss a research study examining improvement knowledge in clinical practice as experienced by nursing students with respect to a patient-centred perspective, knowledge of health-care processes, the handling of adverse events, cross-professional collaboration, and the development of new knowledge. Six focus groups were conducted, comprising a total of 27 second-year students. The resulting discourses were recorded, coded and analysed. The findings indicate a deficiency in improvement knowledge in clinical practice, and a gap between what students learn about patient care and what they observe. In addition the findings suggest that there is a need to change the culture in health care and health professional education, and to develop learning models that encourage reflection, openness, and scrutiny of underlying individual and organizational values and assumptions in health care.

Introduction

Background

In the twenty-first century, nations around the world face mounting problems in health care, including rising costs, challenges to access, and

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wide variations in safety and quality (Detmer, 2003). Adverse events and errors pose serious threats to patient safety (Institute of Medicine, 2000). Issues related to quality of care are not new to care delivery or practice, but the improvement of patient safety is an increasing concern (AAMC, 2001).

There is a spotlight on the serious mismatch between what we know to be good quality care and the care that is actually being delivered. Students and health professionals have few opportunities to get involved in educational interventions that would aid them in analyzing the root causes of errors and other quality problems (Baker et al., 1998; Landers, 2000; Buerhaus and Norman, 2001). Education does not occur in a vacuum. Much of what is learned lies outside of formal academic coursework. A ''hidden curriculum'' of observed behaviour, interactions, and overall norms and culture of a student's training environments are powerful in shaping the values and attitudes of future health professionals (Institute of Medicine, 2003). Heggen (1995) found that nursing students learn clinical practice from a knowledge reservoir of mixed quality, often comprising poor learning situations. Findings from a study by Bjørk (2001) revealed that new nurses are alone with the challenge of nursing, and that there was a lack of strategic thinking concerning learning and development of competence. Processes of work did not ensure opportunities for learning through collaborative reflection and dialogue. A recently released report in the USA describes the critical role of nurses in patient safety; suggesting nurses' workplace environments are a threat to patient safety, and there appears to be a need for a collection of mutually reinforcing patient safety defences in the nurses' work environment (Institute of Medicine, 2004).

As indicated by the Institute of Medicine (2001, 2003) in the USA, current training practices need to be reformed to develop learning opportunities with respect to improving health care. Such reforms include assessments of what types of changes are needed, and how the changes might be carried out. The first step in the process is to examine the current status of the learning context of health professional students, including their knowledge about how to improve health care and patient safety, as well as their experiences of what is happening in clinical practice. Such experiences include their perception of professional norms, rules, attitudes and behaviour.

The aim of this study was to examine nursing students' experiences of improvement knowledge in clinical practice related to the patient's perspective, process knowledge, the handling of adverse events, cross-professional collaboration, and the development of new knowledge.

Knowledge domains for the improvement of health care

The knowledge to improve working processes was first described by Deming (1993) as 'a system for profound knowledge'. This is now referred to as 'improvement knowledge' considered to consist of four elements: (1) knowledge of the organization as a system of production; (2) knowledge of variation in processes, products and people; (3) knowledge of psychology, which includes the psychology of work and of change; and (4) the theory of knowledge to link theory and action (Batalden and Stoltz, 1993). The Institute for Healthcare Improvement (IHI) in Boston, USA, has further developed this concept of improvement knowledge and identified in 1998 eight knowledge domains for health professional students who seek to acquire skills in the continual improvement and innovation of health care. These domains are: customer/beneficiary knowledge; health care as process, system; variation and measurement; leading, following and making changes in health care; collaboration; developing new, locally useful knowledge; social context and accountability; and professional subject matter (Batalden et al., 1998). Table 1 describes these domains.

Improvement knowledge includes an overall understanding of the connection between quality and safety. The knowledge domains (Batalden et al., 1998) describe factors that are of crucial importance to patient safety. In the present study, we focussed on five of the eight domains (marked by asterisks in Table 1). Three domains were excluded due to the current students' experiences in clinical practice and their level of learning.

An understanding of the health-care system and its processes from a patient perspective represents a fundamental change from the traditional perspective of health professionals. The current system often behaves as though control over decisions, resources, access, and information is in the hands of the caregivers, and is only ceded to patients when the caregivers choose to do so. A fundamental idea in improvement knowledge is the patient perspective, where the patient is the source of control (Berwick, 2002; Kitson, 2002; Coyle and Sculco, 2003; McGarry and Thom, 2004; Davidson et al., 2004).

As a part of an organization, practitioners need to develop their knowledge of the product and services produced by them and their organization. Batalden and Stoltz (1993) describe processes as the way in which services/products are produced.