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Original Research Article

Health care professionals' skills regarding patient safety

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ABSTRACT

Background and objective: The importance of patient safety is growing worldwide, and every day, health care professionals face various challenges in how to provide safe care for their patients. Patient safety skills are one of the main tools to ensure safe practice. This study looks to describe health care professionals' skills regarding patient safety.

Materials and methods: Data were collected using the skill scale of the Patient Safety Attitudes, Skills and Knowledge (PS-ASK) instrument from different health care professionals (n = 1082: physicians, head nurses, nurses and nurse assistants) working in hospitals for adult patients in three regional multi-profile hospitals in the western part of Lithuania.

Results: Overall, the results of this study show that based on their own evaluations, health care professionals were competent regarding their safety skills. In particular, they were competent in the sub-scale areas of error analysis (mean = 3.09) and in avoiding threats to patient safety (mean = 3.31), but only somewhat competent in using decision support technology (mean = 2.00). Demographic and other work related background factors were only slightly associated with these patient safety skills areas. Especially, it was noted that nurse assistants may need more support from managers and colleagues in developing their patient safety skills competence.

Conclusions: This study has served to investigate the general skills of health care professionals in regard to patient safety. It provides new knowledge about the topic in the context of the Baltic countries and can thus be used in the future development of health care services.

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1. Introduction

Most recently, the concept of safety skills (i.e. skills and behaviors that enhance the safe delivery of care) has emerged in healthcare literature [1–3]. Safety skills include non-technical skills such as leadership, teamwork, communication, co-operation, situation awareness and decision making, and also go beyond these to include other behaviors and attributes such as conscientiousness, vigilance and humility. Importantly, these skills have been recognized as both crucial to patient safety and also as highly trainable [1]. Non-technical skills support technical skills such as systematic assessment, fluid management during simulation, urethral catheterization, central venous catheter insertion performed during resuscitation, or carrying out surgery [3].

Researchers investigating health care professionals' knowledge, attitudes and skills regarding patient safety have remarked that a less investigated field is that of safety skills [4]. In the varied and complex health care systems seen worldwide, risks frequently occur that impact upon safe patient care. Health care professionals have to manage these risks using their knowledge and skills in complex systems, and also whilst maintaining a safe level of patient care [5].

Physicians play an important role in their workplace related to patient safety. As such, they need safety skills in their daily activities. They should also be able to recognize patient safety incidents, conduct patient safety incident analysis using protocols, work in a team, learn from errors, and be able to identify actions and recommendations on how to prevent patient safety incidents [6,7]. Nurses have a tradition of enhancing the quality of health care and patient safety, particularly through the use of problem-solving and practice development skills [8]. For example, nurses must exercise their professional judgment when administering any medication, and apply their skills in any given situation so as to act in the best interests of the patient [9].

Previous research has lacked any investigation of how well health care professionals perform in error analysis, although errors themselves have been given more coverage. For example, it was found that more than 90% of medical errors in the United States were preventable, and that to improve patient safety and error prevention, it is essential to utilize error reporting mechanisms [10]. Improvements in surgeons' skills have been reported as improving following the analysis of patient safety issues, and a greater understanding and recognition of patient safety issues was seen following a safety skills training course [1]. Also, another study [11] found that safety improvement program courses improved health care professionals' understanding and allowed them to conduct a root-cause analysis, and most agreed that this improved their skills to lead or be involved in root-cause analysis. In the same study, most of the health care professionals involved gained more skills regarding error reporting practices.

There are several ways to avoid threats to patient safety in clinical practice, such as using pressure relieving bedding materials to prevent pressure ulcers, or using antimicrobial handwashing substances to reduce infection. Handwashing has been investigated in several health care studies, and a compliance with hand hygiene protocols is seen as a good quality indicator of patient safety [12]. Based on earlier studies, a poor compliance with hand hygiene has been seen. In one study, only 66% of personnel performed hand hygiene before or upon entry into a patient's room, and 58% upon exiting the patient's room [13], although a systematic review of handwashing practices worldwide has showed that approximately 19% of the world's population washes their hands with soap after contact with excreta [14].

One way to add support to patient safety is to consider how we may use technology to assist our decision making, related to patient safety issues. The degree to which technology has succeeded in supporting health care professionals in their decision making has not been investigated in any depth. Overall however, while studies have shown a general improvement in patient safety skills, they have not reported any direct patient benefits [15].

The healthcare management body has a central role in helping staff to develop good patient safety skills. Within this, a transformational leadership style has been shown to have a big influence in creating a positive safety climate, contrary to a more laisser-faire style of leadership which tends to focus on a culture of blame [16].

This study looks to describe the kinds of patient safety skills that health care professionals have and the associations that related individual backgrounds factors have on them.

2. Materials and methods

2.1. *Data collection*

The data were collected in three regional multi-profile hospitals in the western part of Lithuania. The study participants were health care professionals (physicians, head nurses, nurses and nurse assistants) working in hospitals for adult patients. Permission to conduct the study and collect data was granted by the ethical committees of the hospitals which participated in both the pilot phase and the main data collection. The ethical considerations related to data collection focused on the ethical principles for research, namely those of confidentiality, privacy, and the voluntary nature of participation in the study [17]. Permission to use the instrument used in the study was obtained from the copyright holder of the instrument by the first author.

The questionnaire consisted of two parts: background questions, and the instrument which measured the respondent's skills regarding patient safety. Nineteen background questions gathered data on basic demographic characteristics (e.g. work position, age, gender, education, years at work, usual shift, etc.), and further questions gathered information about their experiences of patient safety.

Skills were investigated using the skills scale (13 items) of the Patient Safety Attitudes, Skills and Knowledge (PS-ASK) instrument developed by Schnall [18] measuring health care professionals' general skills related to patient safety. The scale has three subscales: error analysis (6 items), threats to patient safety (4 items) and decision support technology (3 items). The items measuring health care professionals' error analysis related to patient safety included items such as ‘‘participating as a team member of a Failure Mode & Effect analysis,’’

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