Scientific Information

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The Multi-professional Patient Safety Curriculum Guide released by WHO in October 2011 promotes the need for patient safety education. The comprehensive guide assists universities and schools in the fields of dentistry, medicine, midwifery, nursing and pharmacy to teach patient safety. It also supports the training of all health-care professionals on priority patient safety concepts and practices. The Patient Safety Curriculum Guide provides teaching and information tools to support patient safety learning. The Curriculum Guide comprises two parts. Part A is a teachers' guide designed to introduce patient safety concepts to educators. It relates to building capacity for patient safety education, programme planning and design of the courses. Part B provides all-inclusive, ready-to-teach, topic-based patient safety courses that can be used as a whole, or on a per topic basis.

As colleges and schools of pharmacy develop core courses related to patient safety, course-level outcomes will need to include both knowledge and performance measures.

The 1995 background papers of the Commission to Implement Change in Pharmaceutical Education set forth key elements to train pharmacists capable of participating in the healthcare system of the future.1 Yanchick demonstrated that the broad competency categories identiûed in background paper 52 aligned well with the 2003 recommendations of the Health Professions Education Summit, which called for all health professionals to be able to demonstrate proûciency in delivering patient-centered care, working in interdisciplinary teams, employing evidence- based practice, applying quality improvement approaches, and usi ng informatics.3 As pharmacy programs establish coursework to prepare student pharmacists to participate in patient safety and quality improvement activities, both knowledgebased outcomes and performance outcomes must be developed.

Faculty members from the schools of medicine, nursing, and pharmacy at the State University of New York - Buffalo developed the following patient safety performance objectives, which correspond to the 5 competencies, for their family medicine residency programs:

a) Patient care
b) Medical knowledge
c) Communication
d) Professionalism
e) System-based practice

As pharmacy curricula better emphasize interdisciplinary training, patient safety, and quality improvement, pharmacy educators should be able to recognize how these performance outcomes in medical and pharmacy residencies also are skills needed by

pharmacy graduates entering practice. Because the system-based practice outcomes depend on effective team activities, and because effective communication among team members is essential to patient safety and quality clinical outcomes, doctor of pharmacy programs should teach approaches that are currently being taught to and used by other health professionals who will be participating with pharmacists on patient care teams.

According to the WHO there are 10 main facts, which influences on the patient care. There are the following: **Patient safety is a serious global public health issue**: There is now growing recognition that patient safety and quality is a critical dimension of universal health coverage.

One in 10 patients may be harmed while in hospital**: Estimates show that in developed countries as many as 1 in 10 patients is harmed while receiving hospital care. The harm can be caused by a range of errors or adverse events.**

Hospital infections affect 14 out of every 100 patients admitted**;**

Most people lack access to appropriate medical devices**; There are an estimated 1.5 million different medical devices and over 10 000 types of devices available worldwide. The majority of the world's population is denied adequate access to safe and appropriate medical devices within their health systems;** Delivery of safe surgery requires a teamwork approach**: an estimated 234 million surgical operations are performed globally every year. Surgical care is associated with a considerable risk of complications. Surgical care errors contribute to a significant burden of disease despite the fact that 50% of complications associated with surgical care are avoidable.** About 20%–40% of all health spending is wasted due to poor-quality care; A poor safety record for health care: **Industries with a perceived higher risk such as the aviation and nuclear industries have a much better safety record than health care. There is a 1 in 1 000 000 chance of a traveler being harmed while in an aircraft. In comparison, there is a 1 in 300 chance of a patient being harmed during health care.** Patient and community engagement and empowerment are key: **People's experience and perspectives are valuable resources for identifying needs, measuring progress and evaluating outcomes.** Hospital partnerships can play a critical role: **Hospitalto-hospital partnerships to improving patient safety and quality of care have been used for technical exchange between health workers for a number of decades. These partnerships provide a channel for bi-directional patient safety learning and the co-development of solutions in rapidly evolving global health systems.**

human factors examines the relationship between human beings and the systems with which they interact, and focuses on improving efficiency, productivity, creativity and job satisfaction, with the goal of minimizing errors.

Human factors is a discipline that seeks to optimize the relationship between technology and humans, applying information about human behavior, abilities, limitations, and other characteristics to the design of tools, machines, systems, tasks, jobs and environments for effective, productive, safe and comfortable human use.

It is possible to manage the human factors. Management of human factors involves the application of proactive techniques aimed at minimizing and learning from errors or near

misses. A work culture that encourages the reporting of adverse events in health care allows the health-care system and patient safety to improve.

There are some strengths and weaknesses of human factors: Human beings are not machines. humans are unpredictable and unreliable, with a limited ability to process information; humans are creative, self-aware, imaginative and flexible in their thinking.

Health-care professionals are good at compensating for some of the complex and unclear design of some aspects of the workplace (e.g. equipment, physical layout) because the human brain is very powerful; very flexible; good at finding fast; good at filtering information

There are the some kind of relationship between human factors and patient safety. Situations that increase the likeli- hood of error of unfamiliarity with the task (especially if combined with lack of supervision); inexperience of shortage of time; inadequate checking; poorly designed proce-dures; poor human-equipment interface. Individual factors that predispose to error, also, limited memory capacity.

RECOMMENDATIONS The outcomes discussed here measure only a subset of the knowledge, skills, and attitudes necessary to promote a culture of patient safety and which must be acquired and assessed throughout the PharmD curriculum. PharmD graduates must have the informatics and systems skills to participate effectively in patient care and safety initiatives. Human factors are relevant to patient safety in all healthcare environments. This includes understanding the interactions and interrelationships between humans and the tools and equipment they use. Understanding the inevitability of error and the range of human capabilities and responses in any given situation is essential to knowing how the application of human-factors principles can improve health care.

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სამეცნიერო შეტყობინება

კვიჟინაძე ნ., დუღაშვილი ნ., კიკნაველიძე ნ.
პაციენტის უსაფრთხოებისა და ჰუმანური ფაქტორების ურთიერთკავშირი
თსსუ, სოციალური და კლინიკური ფარმაციის დეპარტამენტი

ჰუმანური ფაქტორების გავლენა პაციენტის უსაფრთხოება იწყება ისეთი საკითხების დაზუსტებით, რომლებიც ხელს უწყობენ ან ხელს უშლიან ადამიანის მუშაობას. ჰუმანური ფაქტორები კავშირშია ადამიანის ქცევასთან, სისტემის დიზაინთან და უსაფრთხოებასთან, რომელიც უმნიშვნელოვანესია დაშვებული სამედიცინო შეცდომების ან შემთხვევების გაგებაში და/ან ჯანდაცვის სისტემაში არსებული დაბრკოლების აღმოფხვრაში. ჰუმანური ფაქტორების თეორიის ძირითადი ელემენტების გაგება ხელს უწყობს უსაფრთხო და ეფექტური პრაქტიკის წარმოებას.
ჰუმანური ფაქტორების ცოდნა გვეხმარება შემდეგი საკითხების გარკვევაში: რატომ უშვებს სამედიცინო პერსონალი შეცდომებს და რა ფაქტორები ემუქრება პაციენტის უსაფრთხოებას; აუმჯობესებს უსაფრთხოების კულტურას გუნდსა ან ორგანიზაციაში; აძლიერებს გუნდურ მუშაობას და ამაღლებს კომუნიკაციის დონეს თანამშრომლებს შორის; აუმჯობესებს ჯანდაცვის სისტემის დიზაინს.