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# Nursing Challenges for the 21st Century

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### **Abstract**

It is estimated that millions of patients suffer mental and physical disabilities, injuries and death due to adverse events. The human and economic burden of these events has also been a challenge for health care institutions, especially for nurses. In this regard, efforts are impounded to form health care professionals for safety and rehabilitation, able to manage the current health needs of people, to identify the risks associated with unsafe care, and with systemic focus. This short commentary discusses the nursing challenges for the 21st century and gives the reader some suggestions of how to solve some of these challenges towards a safer self-care in rehabilitation, especially at home.

**Keywords:** Adverse events; Patient safety; Nursing; Self care; Rehabilitation

## **Background**

Health systems worldwide have evolved significantly over the past 20 years. Scientific knowledge about chronic diseases and the improvements in technologies used in health care have contributed to the quality of life for people. However, the major challenge is not being up to date with these advances, but providing safer care in a complex health care environment [1].

Patient safety is a global problem that affects countries at all levels of development. It is estimated that millions of patients suffer mental and physical disabilities, injuries and even death due to adverse events. In developed countries, one in every ten patients suffers harm in well-structured and technologically advanced hospital environments [1-4]. In developing countries, or in countries in transition, this scenario is even worse because of poor infrastructure and lack of equipment; deficiencies in infection control policies; poor performance of health care professionals; the inability of government and other public agencies to identify and manage the information about adverse events; and the lack of incentive for health care teams to notify others of adverse events [1,5].

The human and economic burden of adverse events have also been a challenge for health care institutions [6]. In the United Kingdom and Northern Ireland, the consequences of adverse events result in significant costs to hospitals, up to £2 million per year. In the United States, costs related to adverse events are approximately \$17 million to \$29 million annually. In Canada, these events are responsible for an increase in costs in the order of CN \$750 million for hospitals [7,8]. Previous studies conducted in Brazil [9-11] showed that adverse events are also common. However, there is no data on the costs to the health care services and to society because of these events.

In the context of nursing care, it appears that nurses have always been concerned with defining and measuring the level of quality of their actions. In the past, the responsibility of nurses in patient safety was restricted to a few aspects of care, such as avoiding medication errors and preventing falls in hospitals settings. While these aspects of safety remain important for nursing practice, the breadth and depth of the subject are much larger [12], including the safety in home care.

Most of today's strategies for patient safety were created for hospital settings. However, there are a significant number of people with chronic conditions at home. Future studies should focus on these sites for the establishment of appropriate and evidence-based nursing interventions to reduce the risks and complications related to health care.

# Nursing Challenges for the 21st Century and Potential Solutions

With the aim of providing quality and safe care to people, family and community, nurses have joined forces to build a body of knowledge focused on evidence-based practices. However, it is important to keep in mind that the prevention of adverse events and the promotion of safer care require the participation of all health care teams involved in the processes. It is not enough to know the phenomenon of adverse events in depth and the strategies for risk prevention if professionals do not adopt them in their day to day and if there is no change in the culture of safety. Although most adverse events are caused by system failures, it has been difficult for physicians, nurses and other health care professionals to accept this concept and to create a non-punitive environment. An environment where it is safe to talk about the adverse events, and their causes instead of punishing offenders.

Another major challenge concern is the difficulty of transferring available knowledge for clinical practice. In this regard, efforts are impounded to form health care professionals for safety, able to manage the current health needs of people, to identify the risks associated with unsafe care, and with systemic focus.

The way nurses were trained in the twentieth century no longer meets the healthcare needs of the 21st century. Patients' needs and healthcare environments have become even more complex and nurses need to achieve a higher level of skills, competencies and attitudes to meet these needs with efficiency, quality and safety [13]. Therefore, the continuous training program of nurses can be considered the foundation for the quality and safety of care.

Another challenge is inclusion of patient safety as a discipline in the curriculum of nursing undergraduate and graduate programs. Some universities have sought this inclusion. However, the workload intended for this discipline is modest, and the teaching methods used are considered suboptimal [14-16].

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The Institute of Medicine [17] also cites the importance of reformulating the educational methods implemented in professional training, which do not expose patients to unnecessary risks. There are a variety of educational methods widely used. Among these, the nursing simulation scenarios are a global phenomenon and they should be encouraged. These scenarios assiststudents and nurses in making clinical decisions based on evidence, and allow the knowledge, skills and attitudes to be acquired safely oriented, efficient, and without risks to patients [18].

Also, with the increase in life expectancies around the world, the shortage of caregivers and the need for autonomy in the execution of daily tasks, home safety oriented to individuals with chronic illnesses and elderly people become indispensable themes for the health care team, especially for nurses. Accordingly, the ultimate goal of rehabilitation is to acquire and retain the highest possible level of autonomy, with the aim of maximizing people's participation [19] in their process of care. In this direction, reflecting on the ethics of care and on the principle of respect for an individual's autonomy, health care professionals' efforts should address the development of health strategies to empower clients, families, and caregivers. The strategies should also give people support for autonomy in home environment in order to promote social participation, and to provide and receive safe care.

Following this trend, the safe patient handling in rehabilitation should initiate in the hospital setting and be continued in primary health care and home health care settings. Nurses should identify the need for patient training before hospital discharge, and to ensure that the patients will be able to continue their self-care at home.

Once patients are at home, and during home visits, nurses can address essential issues related to safe performance on people's daily activities, including self-management of medication, risk of falls, and self-care.

Patient education is a key intervention in assisting patients in the medication management process at home because patient knowledge of medications is associated with adherence [20]. However, specific educational methods should be adopted by nurses, according to each patient. For example, learning is more effective in older adults if information is explicit, organized in lists, and in logical order; thus a combination of both oral and written formats is identified by older adults as most helpful [21].

Another important intervention adopted by nurses to reduce medication errors is related to the use of electronic devices and other equipment's to support safe medication administration at home. Vieira [22] described a device to make home drug therapy as safe as possible. She developed an electronic System of Personal and Controlled Use of Medication (SUPERMED) to improve the adherence to the drug therapy in a group of elderly patients with hypertension. According to the author, after the use of the SUPERMED, the systolic arterial pressure values average decreased in 21.6 mmHg, the diastolic arterial pressure in 4.7 mmHg, and 96.9% of patients' shown more adherence after the use of the devise, against 81.2% before its use.

Another nursing challenge is assisting with the safe transfer of patients at home, which is a common aspect of patient rehabilitation. Thus, it is recommended appropriate transfer devices, as well as appropriate educational and training in supporting safe transfer of patients at home to prevent falls and fall-related injuries. There is a need for multimodal, interdisciplinary prevention programs; as well as

more accurate risk assessment instruments; and more research related to this complex and costly problem. Thus, the identification of methods to build fall and injury prevention programs in the community is needed to guide policymakers [23].

The preservation of people's autonomy and their participation in the care process and the basic principles of rehabilitation in a safe home environment emerge as concrete demands of the population and require the active role of nursing. The challenge presented to nursing, and other caregivers, is to develop training strategies for home self-care safety. In this context, nurses play a key role in the safe patient handling in rehabilitation at home. Nurses should be able to coordinate and monitor self-care at home through performance reviews; and to consider that patient's family and other caregivers should be included in the patient's rehabilitation process.

### Conclusion

Health systems have become very complex environments to provide safe care, and with the increase in life expectancies, there are a significant number of people with chronic conditions at home. Thus, nurses should be prepared to provide safe care at home and to prevent home-related injuries, because everyone has the responsibility for patient safety. Nurses and other health care professionals, universities and health care institutions should be committed to the continuous development of human resources towards the quality and safety of care.

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