FALLS OF PATIENTS IN HEALTHCARE FACILITIES AS EXTRAORDINARY INCIDENTS

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Summary:
A patient’s fall especially in the elderly population in connection with hospitalization presents a major problem. Recurrent falls and fear of them often confine the patient to bed with considerable negative consequences including progression of Disuse Syndrome. This report is focused on the issues of falls by hospitalized patients. The survey uses the quantitative method with evaluation of the data received, expressed in percentages. The research reveals the problems that occur in connection with patient’s falls in Healthcare Facilities. Finally, there are some recommendations for practical application to improve the quality of the Nursing Care.

Keywords: Hospitalization. Patient. Fall. Vertigo. Disuse Syndrome.

Introduction:
Aging is a long-lasting process which affects not only the Biological arena, but also Psychological and Social ones. It implies disorders of the physiological functions, namely of the cardiovascular and respiratory systems, as well as mobility disorders. There is a loss of motivation and a focus on the past. Elderly people can fail to adapt adequately to the new situation; both their mental and physical performances decline. Their movement activities diminish. Prescription of the medication, multi-morbidity and dependence increase the risk of a fall, as well as the use of Medical Care Services and recurrent hospitalization, and make the time of the treatment longer (2). The consequences of falls are the most serious and costly in the case of fractures.

Patient’s falls belong to the most frequent extraordinary incidents in Healthcare Facilities. The consequences of a fall in hospital include complications of the basic illness; light or severe injuries; prolonged hospital stay; higher costs of treatment (4).

Fall-related injuries are reported to be the 6th or 7th most frequent cause of death in the population over 65 years (1). Up to 20% of Geriatric patients are reported to suffer a fall in hospital and more than 50% patients happen to fall in long-term Healthcare Facilities. 25% of the affected patients fall repeatedly. However, this problem occurs not only in hospitals, but also at home. Falls at home belong to specific Geriatric Syndromes. They represent a very important, but often ignored problem related to the elderly population. Affected elderly people often do not report the fall, the reason being, among others, that it reminds them of their own helplessness. They seek medical attention only if the fall leads to an injury or to the substantial deterioration of their autonomy. About a third of the population aged 65 living at home suffer a fall once a year. Frequency increases with age (an 85 year old falls five times more than that aged 65); as well as in the case of poly-morbidity and deterioration of the self-sufficiency. With regard to both internal and external demographic change, there are a growing number of the elderly patients; falls represent a serious concern from the point of view of Nursing Care, rehabilitation, diagnosing and treatment (5). While the elderly have undoubtedly the biggest share in the number of the falls in hospitals, there also are younger people among those who suffer a fall in hospital. In their case, however, the injuries imply better prognosis, healing and recovery.
In order to positively influence patient’s safety and to reduce the risk of a fall to a minimum, Healthcare Workers have to be familiar with risk factors that could lead to such an incident; to target Nursing intervention to a set of preventive measures tailor-made to the specific patient’s needs; to provide tools; instruct the patient and adequately motivate him/her through targeted communication. The way the hospital stay develops can be positively influenced by cooperation with both the patient and his/her family (6).

The proper administration of Nursing documentation, evaluation and providing information within the medical team also have important roles to play. According to Topinková, Neuwirth (2003), the most frequent causes of patient’s falls include walking difficulties; balance difficulties; muscle weakness; failing eyesight; cognitive impairments; deterioration of the activity of daily living (ADL); depression; at age 80 and over; fall in case history; poly-morbidity; prescription of medication (5).

A large number of cases are formed by patients who are confined to bed and fully depend on a Healthcare Worker’s aid; those who will use (or have already been using) locomotion aids (walking sticks, crutches, prosthetic devices) as well as glasses and hearing aids. Adaptation to new environment; unfamiliar terrain; slippery surface; unsuitable footwear; night-time lighting; obstacles in the way; inadequately located devices of everyday use; staircases; bathrooms; remote toilets are sources of mental strain for those people. The feeling of discomfort and the fear of falling restrict their movement and ways of fulfilling of their needs.

Another group is formed by patients who are confined to bed temporarily (injuries, postoperative treatment). They are provided with the information; know what their current capacities are; but most often overestimate their strength and fail to assess the difficulty of the intended activity and their current capacities. Also, patients who move around without any help may happen to fall as a consequence of a sudden change of health condition or collapse that may occur during the recovery process(3).

Children represent a particular group. Healthcare Workers must fully guarantee their safety. If children still happen to fall, it is usually the Worker who is fully responsible for such incidents. Nowadays, however, most Healthcare Centers enable parents or other relatives to stay in hospital with their child, and in that case, responsibility for the child’s safety lies with the concerned family member.

Safety, security and the ability to move belong to the fundamental needs of every person. As a rule, people satisfy these needs automatically themselves subject to their capacities and demands. However, in the case of an illness, patients wishing to satisfy their needs have to rely, partly or entirely, on the Healthcare Staff.

**Practical Part:**
A lot of patients perceive an illness and hospitalization as a difficult situation which has a negative impact on the physical, mental and social state of a person and implies a lot of restrictions and unpleasant feelings. This research monitors a very specific area - patient's falls during hospitalization, i.e. an area which has not been examined in the selected Facility at a District level.

**Research Objectives:**
1) To find out which group of hospitalized patients has been the most vulnerable in the selected Healthcare Facility at the time of the research.
2) To determine the most frequent causes and risks of the hospitalized patient’s fall.
3) To put forward some recommendations aiming at reducing the number of falls and related injuries.

The Group of Respondents and the Methodology:
The group of respondents was comprised of patients of the selected Healthcare Facility during the designated period January to December 2012. The quantitative method with the evaluation of the data received, expressed as a percentage has been chosen as the main method. The monitoring has been realized in 11 Departments of the Healthcare Facility, including the Children’s Department; taking into account the fact that 80% of the hospitalized children were accompanied by their parents. The target group were the patients who fell during hospitalization in the Facility. In the designated period, 158 cases of a fall were reported in the Internal Medicine Departments I, II and III, Surgery Departments I, II and III, as well as in Orthopedics, Neurology, Pulmonary, Gynecology and Otolaryngology Departments. The preparatory phase began in the Autumn 2011 with the objective to inform the Management of each Department of the importance and need to receive objective data on the situation relating to falls of the hospitalized patients; and, as a follow up, to take measures to improve the quality of the Healthcare provided; as well as the safety of the patients. The received information has been transformed into the charts using Microsoft Word Text Editor and Microsoft Excel Table Editor.

The Research outcome:

Chart 1 Falls by Age
56% of the patients who suffered a fall belong to the age group 75 years and older; 23% 60-74 years; 14% 45-59 years; while the share of the patients of the age group 30-44 years and of the age group up to 30 years is 4% and 3%, respectively.

Chart 2 The Number of Falls in the Selected Facility
Out of the total number of the falls (158), 56% of the cases included injuries.
Chart 3 The main diagnoses of the patients in line with the ICD 10
The set of the main diagnoses stated in the records has been very extensive, that is why the diagnoses have been divided into 11 disease groups in line with the International Classification of Diseases 10: 46% of patients suffered from a disorder of the circulatory system; 10% of the digestive system; 9% from the musculoskeletal system; 8% suffered from an endocrine disease; 6% from head injury; less than 4% had a skin-related problem; 17% of consciousness, malignant tumors, disorders of the central nervous system and the respiratory system.

Chart 4 The number of falls by hours
Most falls occurred in the period of 1:00-2:00 am, 7:00-8:00 pm, 10:00-11:00 pm.

Chart 5 The assessment of the self-sufficiency (according to Nurse)
22% were fully self-sufficient; 41% partly self-sufficient; 33% required intensive surveillance; while 4% were fully immobile.

Chart 6 The Circumstances of the Fall
50% fell when trying to stand up and fell from bed; 25% when walking as a consequence of instability; 4% tried to catch hold of an unstable support; 5% falls by stumbling or slipping; 16% of the patients reported other causes.

Chart 7 The location of the fall
83% of the falls happened on a ward; 11% in the bathroom or the toilets; 5% in the hall; 1% in another building.

Chart 8 The Cause of the Fall
42% were caused by a changes of the health condition; 39% wanted to satisfy their personal needs by themselves (defecation or urination when in bed, being thirsty, etc.); 11% when walking; 5% during sleep; 3% wore unsuitable footwear.

Chart 9 Measures Taken After the Fall
The measures taken after the fall included re-instruction (46%); more intensive surveillance (5%); 7% demanded being accompanied or assisted; 23% were provided with an alarm device to call Healthcare Staff; 17% were provided with bedrails; while leather restraint devices were applied for 2% of the patients who fell.

Discussing the concerned issues
Patient falls belong to very serious, even extraordinary incidents in Healthcare Facilities. Identification of the risk factors related in hospitalization and the possibility to influence them can lead to a higher quality level of Nursing Care, as stated in Charvátová and Jurásková (2007). This research confirms the theory stated by Topinkova and Neuwirth (2003) that concerning falls, the most vulnerable group are patients in upper age categories. In the designated period, these patients formed the largest group; 56% of people aged 75 and over; 23% aged 60 to 74 years. The average age of the hospitalized patients was 70. Thus, it may be stated that the patients over 60 years of age form the group which is at high risk of a fall during hospitalization. In my opinion, Healthcare Staff can reduce the number of falls of hospitalized patients
of this age mainly by taking increased responsibility; paying attention to the Nursing Care Provisions; as well as extending instruction activities aimed at the selected patients to include fall prevention measures.

It is necessary to pay more attention to patients suffering from self-sufficiency deficit who are at a higher risk of a fall. The research has revealed that 41% of the fallers had been partially self-sufficient before; 33% had been in need of a more intensive surveillance; 4% had been totally immobile; whereas 22% had been self-sufficient. That means that before the fall, altogether 78% of the patients were, more or less, dependent on the assistance provided by Healthcare Staff.

One of the solutions to reduce the risk of falls of the patients with self-sufficiency deficit could be to target a higher degree of Nursing intervention. Attention should be paid particularly to prevention; self-sufficiency; movement promotion and encouragement; as well as to cooperation of all the categories of Healthcare Staff.

This research shows that the falls occurred most often (almost 46%) in the case of patients with a disorder of the circulatory system. Treatment by medication considerably affects the patient’s condition and may increase the risk of a fall. It can be presumed that sudden changes of position are the cause of vertigo and collapse states, followed by self-sufficiency deficit, though temporary (41%). Other types of medication also may have an impact on motor functions, especially at the initial phase of treatment, thus affecting the patient's condition. Following the information provided by Nurses participating in the Nursing Process, a responsible Doctor plays an important role having the possibility to adjust the medication to the patient’s precise needs.

Among other causes of falls, there are subjectively unsatisfied patient’s needs. A lot of patients consider their health condition stabilized and suppose that they can manage an intended activity by themselves; others are disoriented in time or place and are not aware of the consequences of such an activity. This research shows that while the Healthcare Staff was busy elsewhere, 50% of the falls occurred due to a change of patient’s health condition and an attempt to get out of bed; 25% fell when walking, lacking necessary stability. 83% usually fell on the ward when trying to satisfy their personal needs by themselves: 39% had intended to satisfy their need related to defecation, urination or thirst; had intended to use a wheelchair or a chair or to walk round the ward; etc.

Having regard to the fact that 42% of the falls have been caused by sudden changes in health condition and 39% have been related to subjective feelings to satisfy a personal need, it is necessary to consider the situation alarming. Active Nursing Care must be based on a case-by-case principle with active Nursing intervention focused on prevention, educative support and reinforcing the patient's self-sufficiency with the view to reduce the risk of a fall in the Healthcare Facility.

The concrete measures taken in the concerned Facility included re-instructions of the patients followed by more intensive surveillance (51%), 7% demanded being accompanied or assisted; 23% were provided with an emergency alarm device to call a Healthcare Staff; 17% were provided with bedrails guards; 2% were provided with leather restraining devices.
Another aspect to observe and to make conclusions from is the time when the falls occurred. Data obtained prove that late evening and night hours are among the risk factors contributing to the occurrence of falls. Even with care of the highest quality, falls in the Healthcare Facilities cannot be fully eliminated, but it is possible to reduce their number particularly through thought-out and active attitude of all the Healthcare Staff.

**Conclusions:**
The fall of patients in connection with hospitalization represents a major problem, especially in elderly populations. Apart from the risk of injury that could endanger the ill person by related complications, there also is a psycho-social impact on the particular person. Due to the feeling of instability and recurrent falls, a number of elderly people experienced reduced mobility which increased social isolation; they become more dependent and lost their autonomy. Subsequently falls lead to longer stays in hospital and increased use of Healthcare Services and Care provided. Falls and associated problems occur in various forms in all Healthcare Facilities. According to Topinková and Neuwirth (2003), falls occur also in cases of people aged >65 years living at home (25-40%). That is why it is not only in the interest of Healthcare Staff, but also of family members caring for the elderly to establish a system of preventive measures to improve the Nursing Care in this area.

**Practical recommendations:**
1. Organizing seminars within the whole Healthcare Facility to improve the skills of the Nursing Staff, related to the risks of the hospitalized patient’s falls, with special attention paid to the elderly population.
2. Using the results of the individual workplace inspections to reinforce the prevention, educative activities and Nursing intervention, with a view to reduce the risk of patient’s falls.
3. Establishing a case-by-case attitude with active Nursing intervention focused on the promotion and reinforcement of patient's self-sufficiency with a view to reduce the risk of falls within the Nursing Care Process.
4. Regular monitoring of incidents in Healthcare Facilities, their timely assessment and introducing particular measures to improve the quality of Nursing care.

**References:**

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