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Falls in Older People: A Multidisciplinary Approach

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ABSTRACT

The traditional nursing approach to falls prevention is not sufficient to control fall rates because the issue is too complex and must be approached from multiple perspectives rather than just nursing. Therefore, innovative practices and approaches were explored to provide additional fall preventive measures. International and local U.S. practices emphasize the importance of an interdisciplinary approach to falls prevention. This model includes multiple clinicians with diverse backgrounds, such as physicians, physical therapists, and pharmacists, who assess patient fall risks together and implement measures to effectively decrease the risks. Limited guidelines and lack of conclusive research about the interdisciplinary approach lead the team of Master of Science in Nursing Clinical Nurse Leader students to investigate the roles of multidisciplinary team members for falls prevention in great detail. As a result, a blueprint of team role descriptors was created and offered for implementation in the medical-surgical elderly client population unit.

This project provides innovative guidelines for falls prevention. These guidelines have the potential to decrease patient falls by 20-30 % in the hospital. This paper is particularly focused on the physician's role in fall prevention. In addition, this paper represents a modified compilation of current innovative hospital practices and evidence-based research findings.

1. Introduction

Although it is widely quoted that only 5-10 per cent of falls result in serious injury the consequences of even an apparently non-injurious fall can be significant to the individual, his or her carers and the NHS. More than 300,000 pensioners each year require hospital treatment as a result of a falls-related injury and the subsequent cost to the NHS in providing care is undeniably considerable. However, it is difficult to provide absolute figures. Direct costs

can include an acute hospital stay, investigations, rehabilitation, outpatient follow-up and the provision of equipment, medication, home modification and institutional care. In addition, there are indirect costs related to increased carer and patient morbidity.

The physical consequences of a fall can range from death, fracture, soft tissue injury and pain, through to conditions associated with prolonged lying on the floor, such as hypothermia, pneumonia and pressure sores. Less documented, but possibly more prevalent, is the psychological trauma the individual may experience, such as anxiety, depression and social isolation.

There are many reasons an older person may have fallen and often these precipitating factors are intertwined. The ward-based nurse has a duty not only to maintain the safety of the hospitalised patient but also to coordinate a safe discharge. The National Service Framework for Older People (Department of Health, 2001) recognises that any meaningful attempts to reduce both the number of falls and their adverse consequences can be taken forward only on a multi-disciplinary and multiagency basis.

2. What is a fall?

There is no single definition as to what constitutes a fall. The state that a fall should exclude those incidents that result from major intrinsic events, such as a cerebrovascular accident, or from overwhelming outside events, such as motor vehicle accidents or violence. Berg et al define a fall as 'losing your balance so that your hands, knees, buttocks or body touch or hit the ground or floor'. Tideiksaar (defines a fall as 'an event in which a person inadvertently comes to rest on the ground or another low level such as a chair, bed or stairs'.

The need to define a fall is of more than just academic importance. Varying definitions can make comparisons between studies difficult. However, the subjective nature by which an individual assesses what is, or is not, a fall can be of practical significance. For example, a trip or slip may not be reported as a fall. Similarly, individuals who inadvertently stumble backwards onto a chair or bed may not consider themselves as having fallen. Health care staff must remember that receiving a negative answer to the question: 'Have you fallen lately?' may be unintentionally inaccurate.

3. Why are older people prone to falling?

Figures from the USA indicate that 25 per cent of all people aged 65 to 74 years fall each year and that this rises to 33 per cent in those aged 75 years and over (Tideiksaar, 1998). It is generally accepted that a fall is often the result of a combination of factors. Risk factors can broadly be categorised as those that originate from within the individual (intrinsic) and those that originate from the environment (extrinsic).

A fall may not only be the consequence of an already identified condition but may also be the symptom of an as yet undiagnosed illness. Older people often present with multipathology, which often increases the risk of falling above that posed by a single ailment. Furthermore, many drugs increase the risk of

falls, such as diuretics, antihypertensives and sedatives. Multi-pathology often results in polypharmacy, with several 'risk-enhancing' drugs being taken by an individual.

Up to 30-50 per cent of falls in older people living in the community are caused by environmental hazards (Effective Health Care Bulletin, 1996). However, it is very difficult to distinguish between instances when such hazards have been solely to blame and when intrinsic factors have resulted in individuals not being able to deal very well with their surroundings.

Those who are most frail are more susceptible to environmental hazards, and their disability will dictate which hazards pose an increased risk (Tinetti and Speechley, 1989). Hospitalised patients are often at an increased risk of falling because they have deteriorated physically and/or mentally and are in an environment in which they are unfamiliar.

4. Consequences of a fall:

The adverse physical consequences for those who suffer a major injury after falling can be devastating. However, the psychological and social impacts may be more prevalent and can have far-reaching consequences. Chandler et al (1996) and King and Tinetti (1995) report a link between the fear of falling and increased levels of depression, dependency and anxiety. The fear of falling itself can increase the risk of a fall occurring because the individual tends to 'freeze', becomes agitated and panics. Posture often becomes unbalanced, with the individual leaning forward or over-reaching to gain an apparently supportive structure, such as a chair.

People with a fear of falling tend to reduce their activity levels, possibly as a means of avoiding the fear-enhancing situation of being more mobile. Reduced activity and associated increased levels of dependency can result in greater demands being placed on family and professional carers. Subsequent increased levels of help can reinforce the feelings of helplessness in those who have fallen. As care needs increase, the older person may find that admission to a nursing home becomes necessary. However, the relationship between the fear of falling, depression and increased dependency remains poorly defined and would benefit from further study.

5. Risk assessment:

Identifying those individuals at risk of falls would allow resources to be targeted more effectively. For a falls assessment tool to be of practical worth it must be valid, reliable, easy to administer and must identify those at high risk. A tool of high specificity may not be sensitive enough to predict many potential fallers. As an analogy, consider buying a card for your nephew's 12th birthday. If you asked the shop assistant for a card that stated 'To my nephew' with the relevant age, your choice would be very limited and would exclude other appropriate cards designed for young boys that carry no relationship and cards that do not state either birthday or age. Conversely, a tool with low specificity may over-predict those at risk of falling and so be of little benefit.

To continue the previous analogy, if you asked for a birthday card for a male relative, there would be many inappropriate cards to choose from, as well as a wide range of ages.

Several assessment tools allow the user to formulate a score to predict an individual's susceptibility to future falls (Kinn and Hood, 2001; Oliver et al, 1997; MacAvoy et al, 1996). However, the causes of falls are often varied and complex and this is reflected in the wide range of indicators and the relative importance accorded to them within each tool. Common indicators for falls prediction include a previous history of falls, confusion, unsteady gait, and the number and type of medications being taken.

The National Institute for Clinical Excellence (NICE) is supporting the National Service Framework (NSF) by developing guidelines to identify and assess those at risk of falls and subsequent preventive measures. The guidelines will be completed in 2004 and are expected to cover the following areas:

- Identification and assessment of older people at risk;
- Exercise;
- Podiatry;
- Vision;
- Home assessment;
- Medical review;
- Pharmacological review.

Regardless of whether a predictive tool is used or recent falls are formally evaluated, it is important to raise the issue of falls prevention with the patient, relatives and health care staff. Falls happen for a reason and even a brief assessment can identify many treatable factors. When a patient is deemed to be at risk of falling, an assessment should lead to a falls prevention care pathway. Selective intervention can then improve physical state, mental well-being and the environment. The NSF website gives several examples of good practice within a variety of settings.

6. A multidisciplinary Approach:

Many studies concerned with falls in older people look either at those based in the community or within an institution. Both these areas are important for the hospital patient, where thoughtful discharge planning is required. There is no single professional group that has the expertise or resources to tackle all the possible issues.

The NSF recognises the need for an integrated falls prevention service. Individual assessment and the subsequent support must extend beyond the hospital. Closer liaison with community-based services, including physiotherapy and occupational therapy services, will aid continuity of care as will the development of outreach services. The NSF highlights the importance of stronger links between all health providers, including the NHS, social services and the independent sector, with a view to establishing an integrated falls service by April 2005.

Within the ward, all staff must take reasonable measures to maintain the safety of others. With falls prevention in mind, floor space should be free from clutter

and trailing cables. Any spillages should be dealt with promptly, while remembering that warning signs can pose a risk and should be removed quickly. There should be a rolling programme of equipment maintenance, such as servicing brakes on beds, commodes and wheelchairs, rather than relying solely on fault reporting. Flooring should be non-slip and even throughout the ward.

Those patients assessed as being at risk of falls should be nursed in an area that can be observed more easily. Wards that are well supervised during the day may not be at night, but it is unrealistic and unwarranted to expect each at-risk patient to be constantly supervised. Bed and chair alarms will help alert staff that a potential faller is attempting to move. However, staff must also consider why patients are trying to move; for example, do they need to use the toilet?

A patient presenting with a fall (particularly recurrent falls) should receive careful medical screening because it could be the symptom of an underlying pathology that may be responsive to treatment. The patient's medication regime should always be reviewed with falls prevention in mind.

The physiotherapist can aid in problems of gait, balance and posture, including assessment for suitable footwear and walking aids. The occupational therapist can assess a patient's suitability for mechanical grab aids and other devices that will help maintain independence while reducing the risk of falls. A home assessment can be vitally important to a patient who is at risk from falling. Poorly fitted carpets, loose mats, dimly lit stairs and lack of handrails are some common hazards in the home. A podiatrist can help when gait problems are related to conditions such as corns, bunions and overgrown toenails.

There is a debate as to whether the appropriate course of action is to attempt to reduce the severity of fall-related injury or to reduce the number of falls per se. It seems clear that even when the goal is to reduce the number of falls, there has to be an acceptance that they will occur, particularly when patients strive for independence. The NSF acknowledges this view by stating the need to reduce the number of falls and their impact on older people.

Physiotherapists can teach patients different techniques to get themselves up from the floor. If this is not realistic, patients can be taught how to move while on the floor. Practical advice can be given on how to summon help, such as pulling a telephone onto the floor. Providing a lifeline pendant with instructions for its use will be invaluable. Hypothermia may be avoided if the patient keeps a blanket in each room which could be reached from floor level.

Hip protectors are increasingly being recognised as a means of reducing the more serious consequence of a fall, namely a fractured femur. This is especially so among those older people who require long-term care, either in an institution or while being supported at home. Hip protectors reduce the force of the impact sustained by the proximal part of the femur, which is achieved either by padding or plastic shielding. Hip protectors are worn with specially adapted underwear. Although their use significantly reduces the incidence of a fractured femur after a fall, compliance remains an issue, with reports of discomfort, difficulty with putting them on and an unflattering appearance. However, an improved design is helping to address these issues. Cost may also

be an issue because pair of hip protectors and underwear are priced at approximately £40.

Falls happen for a reason and it is possible to identify risk factors and take measures to reduce those risks. However, it is important to recognise that even with falls prevention in mind, falls will still occur and it is a challenge for health care professionals to reduce the adverse consequences that a fall may induce.

Much of the literature differentiates between older people living in the community and those living in institutions. Nurses must consider both environments with regard to the hospitalised older person as part of their day-to-day duty of care and safe discharge planning. Support structures need to be in place that do not differentiate where an individual lives.

Nurses and their multidisciplinary team colleagues need to be familiar with the many risk factors associated with falls in older people. Team members have their own areas of expertise, and good communication will strengthen the coordinated approach. The NSF develops this further by recognising the need for the health service, social services and the independent sector to work together to provide an integrated service.

The literature recognises the adverse psychological effects of a fall, but it is difficult to measure the degree of disability associated with this or the effect of confidence-enhancing measures. This would be an area suitable for further study.

Attempts to modify environmental risk factors within a patient's own home must be done sensitively and not in a cavalier 'we know best' attitude. Compliance is often a problem and it is necessary to gain the trust of the patient, who is at liberty to refuse any suggestions made.

It can appear paradoxical that the ethos of rehabilitation 'to promote independence' can expose patients to risks of falling. A restriction on mobility may reduce the number of falls but this must be weighed against the likely physical and psychological adverse effects.

7. Conclusion

The development of the older populace in the coming decades will carry with it exceptional weights of horribleness and mortality the nation over. As we have laid out, key difficulties to access to wellbeing for the Indian old incorporate social hindrances molded by sexual orientation and different tomahawks of social disparity (religion, position, financial status, shame). Physical obstructions incorporate diminished versatility, declining social commitment, and the constrained reach of the wellbeing framework. Wellbeing moderateness requirements incorporate restrictions in pay, business, and resources, just as the confinements of money related insurance offered for wellbeing consumptions in the Indian wellbeing framework.

Among the most critical discoveries that rose in building up this audit was the inadequacy of information on the weights of access and moderateness among older populaces in India. A noteworthy purpose behind this is standard wellbeing information gathering in India isn't intended to reflect or describe

neurotic movement: a procedure wherein, by goodness of being alive longer than others, the older are bound to encounter a pathology, prompting impedance, practical impediments, and at last incapacity. Numerous standard information accumulation strategies (National Sample Surveys, Census information, or passing endorsements) in India don't catch neurotic movement nor do they disaggregate dreariness and inability results among the older.

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