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Use of Bed/Chair Alarms in Skilled Nursing Facilities for Reduction of Patient Falls

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What We Learned

The research was conducted to measure the effectiveness of bed and chair alarms in reducing client falls. Multiple articles were reviewed regarding diferent alarm systems and the findings concluded that there is no clear evidence to support or refute the use of alarms. This is important to nursing practice because falls are a major risk for injury in long term care settings.

Background

Falls are among the most common cause of injuries sustained in long term care facilities. Studies have been done to examine the effectiveness of alarms in preventing or reducing the number of client falls.

Purpose & Aims

- To identify the effectiveness of bed/chair alarms in clinical practice for the reduction of client falls.
- To explore different types of alarm systems that are being used in clinical settings.
- To determine is there is a significant increase in falls when alarms are eliminated from a facility.

Sample

- 4 research articles total
- 3 nursing research articles regarding use of alarm systems
- 1 systematic review of literature on fall prevention

Methods

- CINAHL database
- Nursing journal articles regarding fall prevention
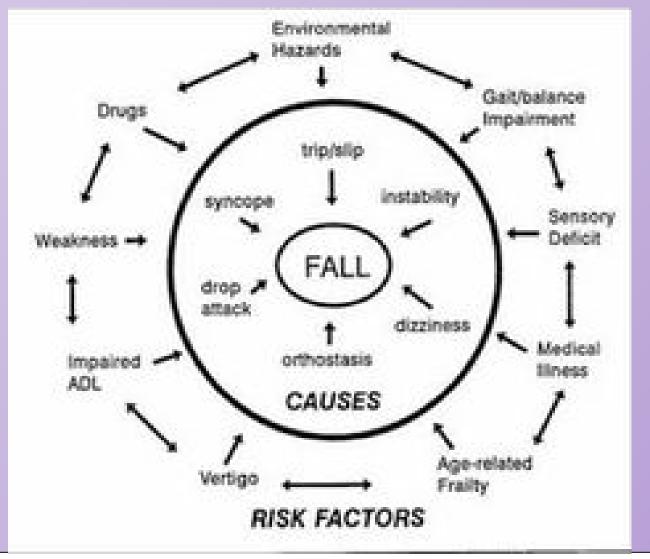- Between the years 2009 and 2015

Results

- Within the systematic review, only a fraction of the studies reported sufficient data and used validated measurement tools to be able to compare fall rates.
- An experiment to reduce and eventually eliminate alarms, showed no increase in fall rates among clients.
- Implementation of a computer software system that correlates unit activity and fall incidence concluded that the system would reduce but not prevent falls.
- A study using a a motion detection and sensor system showed overall client acceptance, no loss in skin integrity from the sensors, and correspondence in time between the video surveillance and motion detection output.

Discussion

- Multiple variations of alarm systems and eliminations were discussed.
- Alarm fatigue is common among staff who work with bed/chair alarms.
- Clients should be screened for fall risk before qualifying for an alarm.
- Staff adherence and education on the alarm system is a major component of effectiveness.

Next Steps

- More research should be done to further evaluate the effectiveness of bed/chair alarms.
- Other methods of prevention should be researched due to lack of success of bed/chair alarms.
- Expand the research to a wider variety of settings and populations to be able to generalize the findings.

Limitations

- There is not much evidence to support or contraindicate the use of bed/chair alarms in clinical settings.
- A larger sample size is needed.
- Some of the measurement tools used to evaluate the effectiveness of the alarms were not validated.