Biostatistics 701

3-6 quantitative articles (not meta-analyses or systematic reviews) that relate to your clinical

scholarly project topic.

The project is below

PICOT Question

In adult patients between the ages of 40-70 years, does undergoingpatient assistance offered through rounding and toileting supervision compared to no patient assistance, reduce the incidence of patient falls within three months.

P - adult patients between the ages of 40-70 years

I - undergoingpatient assistance offered through rounding and toileting supervision

C - no patient assistance

O - reduce the incidence of patient falls

T – three months

Systems Thinking in Healthcare

The healthcare industry is a complex system that merges different professions and stakeholder needs. Clinicians and other healthcare professionals process extensive data and synthesize it to enable them make critical decisions that affect patient safety and health. Healthcare requires an approach that optimizes care delivery and improves patient safety by reducing the number of patient falls in inpatient settings. Cognizant of the industry’s complexity and patient safety needs, system thinking is employed to provide healthcare professionals with an understanding of the dynamics among patients, hospital technology, and patient processes. The PICO question for this paper is based on a population (P) of inpatient adults aged between 40 and 70 years. The intervention (I) includes adopting a systems thinking approach to eliminate risk factors and implement precautionary measures such as keeping the patient bed at a proper height and installing safety grab bars, as well as frequent risk assessments. The comparison (C) element of the PICO question focuses on contrasting previous patient fall rates to current fall rates after the intervention. The expected outcome (O) is a decrease in fall rate in inpatients. Therefore this paper responds to the question, what systems thinking nurse interventions can be used to decrease falls in inpatients and promote patient safety?

The health field is founded on reductionist thinking that involves breaking things down into their specific elements and exploring each of the parts separately; however, systems thinking approach provides a better method of examining patient falls to promote patient safety. Systems thinking involves examination of an entire system, its pieces, and interconnections to understand the system and devise ways to solve both internal and external issues (Hernandez et al., 2017). The safety and quality of patient care are currently facing significant challenges resulting from an increase in patient falls, especially among the elderly. The systems thinking approach is ideal in analyzing data gathered from hospitals regarding the rate and causes of patient falls, as well as risk factors (Hernández et al., 2017). This data is labeled as the input in the systems theory and can be obtained from nurses, caregivers, and physicians who interact with patients daily. Nurse leaders and hospital administrators analyze this information to formulate alternative solutions and adjust accordingly. Possible interventions for the patient fall problem include changing the organizational culture to focus on adherence monitoring, and patient assistance offered through rounding and toileting supervision. Communication, patient evaluations, and patient interventions are possible interventions that focus on post fall documentation, adherence to hospital protocols regarding patients at risk of falling and using strategies that reduce anxiety and pain that causes some of the falls. This process of analyzing the negative input to adjust patient care change is known as the throughput.

Other phases of systems thinking that nurse leaders could use in the fall prevention project include implementation of the identified solutions and use of constant feedback to assess the success of the initiative. After a healthcare facility adapts to environmental changes regarding patient intervention and organizational culture, it represents its output through actions and by sending the right messages (Hernández et al., 2017). For instance, the hospital can send messages about improved patient safety measures and interventions applied to prevent and minimize cases of patient falls. However, messages alone are not enough to represent the output element of the systems approach. Actions, such as taking fall precautions and frequent risk assessments should be used alongside the communicated messages. Regardless, the organization should constantly assess the effectiveness of its output by seeking feedback from patients, their caregivers, nurses, and physicians. Feedback is considered a crucial method of measuring organizational success when using the systems thinking approach to solve internal and external issues (Hernández et al., 2017). Figure 1 depicts a system thinking approach to prevent and reduce falls among inpatients.

Systems thinking is ideal in healthcare settings, especially in the promotion of patient safety because it centers on the dynamic synchronization and interaction of healthcare processes, people, and technology. The systems approach takes the view that most patient falls errors reflect predictable failures in the context of poorly designed systems and adoption of an organizational culture that does not support adherence to monitoring.