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Literature reviews

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Tvedt, C., Sjetne, IS., Helgelan, J., Løwer, JL., Bukholm, G. (2017). Nurses' reports of staffing adequacy and surgical site infections: A cross-sectional multi-center study. International Journal of Nursing Studies 75, 58–64.

Aim

To examine the association between nurse-reported characteristics of the work environment and incidence of SSI after total hip arthroplasty.

Background

Surgical site infections (SSIs) are common preventable complications of orthopaedic surgery and can lead to serious consequences such as pain, disability and death. There are many evidence-based approaches to infection prevention during the pre-, peri- and post-operative periods. Adherence to evidence-based guidelines may not result in all infections being prevented; it is suggested that organisational factors such as multidisciplinary team work and the organisational approach to quality, safety and human error expressed in care systems are also implicated. It has been shown that hospital associated infections (HAIs) are linked with nurse staffing, high bed occupancy and high workload. As nurses spend the most time with patients, their evaluation of the work environment is an important indicator of care quality, although this has not previously been studied in relation to SSI rates.

Design

Cross-sectional multi-centre study.

Data collection

The study involved 16 Norwegian hospitals and included 20 orthopaedic wards. Data were brought together from three sources:

1. Nurse-reported descriptions of the work environment (320 nurses returned the questionnaires),
2. Patient probabilities of being alive within 30 days of hospital admission for patients discharged from hospital (patient survival data) and
3. The incidence of hospital acquired SSI and antibiotic consumption after total hip arthroplasty (THA).

Data analysis

The nurse-reported scores were described using means, standard deviations and minimum-maximum values. Logistic regression was used to examine the association between the nurses' assessment of quality of care and overall survival and the clinical outcome (SSI) after THA.

Results

SSI within 30 days was diagnosed in 2.6% of patients. The poorest nurse-reported scores were for staffing adequacy. Higher patient age, non-elective procedures and low scores for nurse-reported staffing adequacy were associated with risk of SSI. Overall survival, nurses' reports of the quality system, patient safety management, nurse-physician relationship and quality of nursing were not associated with risk of SSI. Logistic regression confirmed that age, elective procedure and interaction between staffing adequacy and procedure type were significantly associated with SSI. The risk of SSI wa significantly lower if staffing was perceived as adequate.

Relevance to clinical practice

Nurses are increasingly under pressure as financial constraints placed on health care organisations globally squeeze staffing levels. Understanding the potential impact of nurse staffing on patient complication rates can help nurses to discuss the implications of financial decisions on patient outcomes.

Smith, I.L., Brown, S., McGinnis, E., Briggs, M., Coleman, S., Dealey, C., Muir, D., Nelson, E.A., Stevenson, R., Stubbs, N., Wilson, L., Brown, J.M., Nixon, J., (2017). Exploring the role of pain as an early predictor of category 2 pressure ulcers: a prospective cohort study. Journal of Clinical Nursing 26, 1011–1020.

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Aim

To explore the role of pressure area related pain as an early predictor of category 2 or greater pressure ulcer (PU) development in high risk patients.

Background

Patients have reported experiencing pain at 'pressure areas' before any signs of a pressure ulcer is manifested but it is suggested that healthcare professionals have not acted on this, resulting in a potentially avoidable pressure injury. Despite this, pain in areas where pressure ulcers are likely to develop is not included in standard risk assessment tools and there have been no studies that have specifically examined the role of pain in identifying the early stages of PU development.

Design

Prospective cohort study.

Participants

A total of 634 acutely ill adult hospital and community patients at high risk of PU development in 18 NHS Trusts in England.

Data collection

Data collection took place between October 2009 and November 2011. A baseline assessment for PU risk and skin assessment was conducted. PUs were classified as category 1–4 or unstageable. Patients were asked if they had pain, soreness or discomfort at a pressure area and were followed up twice weekly for 30 days.

Data analysis

Four logistic regression models were applied to; the presence of pressure area related pain and other patient risk factors, the presence of skin changes or presence of PU and the odds of developing a PU.

Results

Pain was an independent predictor of category $\geq$2 PU development in high risk hospital and community patients with acute illness. A total of 152 (25.2%) patients developed 223 new category $\geq$2 PUs during follow-up. There were 464 (77.1%) patients with pressure area related pain on at least one healthy, altered or category 1 skin site at baseline; 28.0% (n = 130) of these developed a new category $\geq$2 PU compared to 15.9% (n = 22) of those without pain at baseline (table 2). In all of the 4 logistic regression models, pain was a risk factor associated with an increased probability of category $\geq$2 PU development.

Relevance to clinical practice

It should be standard practice for nurses to ask patients if they feel pain at skin sites where PUs are known to be at greatest risk such as the sacrum, buttocks and heels. This question should be incorporated into baseline and ongoing PU risk assessment and patient reports of pressure area pain immediately acted upon by implementing pressure relief and reduction measures.

Goldsmith, H., McCloughen, A., Curtis, K., (2017). The experience and understanding of pain management in recently discharged adult trauma patients: A qualitative study. Injury 49, 110–116.

Aim

To gain understanding of the experience of pain management using prescribed analgesic regimens of recently discharged adult trauma patients.

Background

Acute pain following injury can be intense and prolonged and, if left untreated, can delay rehabilitation and progress to chronic pain. Despite this, patients do not always take prescribed analgesic medication. The adequacy of analgesic medication prescribed on discharge and the quality of information about pain and pain management given to patients on leaving hospital varies. Poor quality and incomplete discharge processes can result in patients not being equipped to manage their pain effectively at home and in avoidable hospital readmission and poorer patient outcomes. A better understanding of discharge processes on the patient pain experience is needed.

Design

A qualitative study, forming part of a larger mixed methods study.

Participants

A total of 12 adult patients (n = 8 male and n = 4 female) attending their first post-discharge trauma outpatient clinic at a level one trauma centre in Australia. The main age of participants was 51 years.

Data collection

Semi-structured interviews were used to explore the experiences and understandings of trauma patients in managing pain using prescribed analgesic regimens during the initial post-hospital discharge period. Patients were purposively recruited based on their response to a previously administered questionnaire indicating that their pain was not well controlled following discharge. The interviews were guided by open and focused questions and were audio recorded and transcribed verbatim.

Data analysis

Braun and Clark's (2006) six-step thematic analysis approach was used to guide the interpretation of the data.

Results

The overarching finding of the study was that injuries and inadequate pain management had a significant impact on the patient's ability to carry out activities at home. Four main themes were developed: injury pain is unique and debilitating; patients are uninformed at hospital discharge; patients have low confidence with pain management at home; and patients make independent decisions about pain management. Patients felt they were not given adequate information at hospital discharge to support them in making effective decisions about their pain management practices at home.

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