Abstract
Falls in the perinatal setting have received minimal attention and have not been well documented. Women are at risk for falling following vaginal or cesarean birth, especially during initial attempts at ambulation. Recently, a women’s hospital that averages over 500 births per month recorded a postpartum fall rate that exceeded the national mean for adult surgical patient falls. A fall prevention team (FPT) of five nurses was formed with a goal to decrease the incidence of postpartum patient falls to zero within the following 7 months. A patient-centered fall prevention strategy was developed. The results of this project have laid the foundation for additional research of a program that will consider not only prevention of falls in a healthy population but also the development of a risk assessment tool specific to women in the immediate postpartum period.

Key terms: Accidental falls; Fall prevention; Fall risk assessment; Patient safety; Postpartum period; Postpartum safety.
Patient falls account for a significant portion of injuries in hospitalized patients and are a major focus of The Joint Commission (TJC) and Institute of Medicine. Falls in the perinatal setting, however, have received minimal attention and have not been well documented. As suggested by Simpson (2010), falls in this specialized setting occur more often than might be expected, and could be minimized with patient education and nursing intervention. Women are at risk for falling following vaginal or cesarean birth, especially during initial attempts at ambulation. This fall risk can be a result of postbirth fatigue, blood loss, hypotension, weakness, or lack of sensation in lower extremities due to epidural analgesia and side effects of narcotic medications.

Background
Hook, Devine, and Lang (2008) conducted a systematic review in an effort to identify the strength of evidence supporting recommendations for fall risk assessment. In their review, they used Morse’s three categories of falls: anticipated physiological falls (e.g., unstable gait, history of falling); unanticipated physiologic falls (e.g., seizures, fainting); and accidental falls (e.g., slipping, tripping). The category into which postpartum falls belongs is “unanticipated physiological” falls, defined as falls attributed to physiological causes but the occurrence could not be predicted (Morse, 1997). This includes falls occurring in patients who are recovering from physiological events and thus are at increased risk for unstable blood pressure, syncope, and subsequent falling at certain high-risk times. Relating this to postpartum patients, the physiological event is cesarean section or vaginal birth, and the high-risk times are after birthing and during the first times out of bed. Hook et al. (2008) considers this a screenable fall-related special condition. Based on their review, the most important factor that influences fall risk particularly in this category is the patient’s willingness, or ability, to actively participate in the fall prevention process.

Fall risk tools are typically designed to predict anticipated physiological falls that represent 34% to 78% of falls that occur in acute care (Currie, 2008). The Johns Hopkins Fall Assessment Tool is a nationally recognized and widely used evidence-based approach to fall risk assessment, fall prevention, and falls management (Poe, Cvach, Gartrell, Radzik, & Joy, 2005). Although the John Hopkins tool is useful in the medical-surgical population, it does not address the unique characteristics in the immediate postpartum period. When using the Hopkins Fall Assessment Tool, most postpartum admissions are rated as a moderate fall risk. Interventions applicable to this category include assisting with bedside sitting, personal hygiene, and toileting.

The postpartum patient is generally an independent healthy woman of childbearing age; their hospitalization experience is focused on the birth of a new infant. Frank, Lane, and Hokanson (2009) recognized the disconnect between the traditional fall risk assessment tools and the postpartum patients. Using the Morse Falls Scale and a Modified Alderete Score, Frank et al. developed and implemented the Post Epidural Fall Risk Assessment Score (PEFRAS). The PEFRAS was designed specifically for postepidural, postpartum patients. The validity and reliability of PEFRAS have not yet been established, but this is the first published attempt to address this specialized population.

In the medical-surgical and geriatric populations, evidence-based recommendations have been made for patient safety and fall prevention (Currie, 2008; Fall Prevention, 2008). In those high-risk populations, research has been conducted to explore the effectiveness of using fall risk identification bracelets, signs, stickers, or tags as an inexpensive and easy intervention (Williams, Young, Williams, & Schindel, 2011). However, study results have not indicated that these measures, as isolated interventions, decreased falls (Bell & Stirling, 2006; Coussement et al., 2008; Dykes et al., 2010; Oliver, Healey, & Haines, 2010). The National Patient Safety Goals (NPSG) encourage the patients’ active involvement in their own care as a safety strategy. The Studer Group has recommended that hospitals hardwire partnerships between nurses and their patients as part of a fall prevention protocol (Studer, Robinson, & Cook, 2010).

A Unit-Based Postpartum Fall Prevention Strategy
Recently, a women’s hospital that averages over 500 births per month recorded a postpartum fall rate that exceeded the national mean for adult surgical patient falls. The national average for adult surgical patient falls per 1,000 patient days during the 12-month time period was 2.79. This mean was used for comparison since there was no national mean for postpartum falls.

Although actual circumstances varied, the Nursing Practice Council for the postpartum unit was concerned that the unsatisfactory fall rate could be due to a lack of patient education and staff awareness. A preliminary review of post-fall reports revealed that some women were getting up to the bathroom without calling for staff assistance. Following the fall, women would report to their nurse that they did not fully understand the effects and duration of epidural analgesia, and did not realize their legs were “too weak” for walking. Although no injuries
were sustained from the falls during the 12-month period, a need to decrease the fall rate was identified in order to prevent potential injury and costs.

With approval from Nursing Administration, a fall prevention team (FPT) of five nurses was formed with a goal to decrease the incidence of postpartum patient falls to zero within the following 7 months. Two months after the FPT was formed, a patient-centered approach to fall prevention was implemented. A “Call for a Helping Hand” letter created by the FPT was placed in each patient’s admission folder (Figure 1). The letter briefly and simply explained the risk of falling in the initial postpartum period. Using low-literacy concepts for developing educational material for women outlined by Wilson (2011), the letter instructed the patient to call for assistance before getting out of bed. A Spanish translation of the letter was also available. The admission folder including the letter and a purple fall risk armband was to be placed at the bedside when preparing the postpartum room for the patient’s arrival. The admitting nurse would thus be prompted to initiate the fall prevention strategy during initial communication and assessment.

Two weeks prior to implementation all postpartum nursing staff (licensed and nonlicensed) were educated about the new fall prevention plan. Multiple methods of training were conducted including e-mail, staff meeting programs, and mandatory read and sign packets. Packets included the letter and information on the rationale for the program and details about the process. All postpartum staff agreed to participate. Nursing personnel in the newborn nursery and labor and delivery units were informed of the fall prevention strategy for additional reinforcement.

When the woman was admitted to the postpartum unit, the admitting nurse and patient reviewed the letter together. The patient was asked to sign it as an agreement to call for assistance. Engaging the patient in signing the letter confirmed understanding and created the nurse/patient partnership in fall prevention as suggested by Studer et al. (2010) and Hook et al. (2008). The letter was left at the bedside as a visual reminder. For additional emphasis, the purple fall risk armband was to be placed at the bedside when preparing the postpartum room for the patient’s arrival. The admitting nurse would thus be prompted to initiate the fall prevention strategy during initial communication and assessment.

To further increase postpartum unit staff awareness and compliance, monthly fall statistics were posted as well as a sign indicating the number of days since the last patient fall. The fall prevention program and progress on meeting the goal of zero falls was discussed at monthly staff meetings. Since implementation of the postpartum fall prevention program, the women’s hospital has decreased their fall rate by 50% and maintained a postpartum fall rate below the 50th percentile for the national mean of adult surgical patient falls per 1,000 patient days.

Clinical Implications

By combining staff awareness of fall risk with a patient-centered approach, caregivers and patients became engaged together in the fall prevention process. Although an improvement was demonstrated in the postpartum fall rate, continuous review, evaluation, and reinforcement is essential for the safe care of obstetrical patients and to ensure compliance with the NPSG of reducing risk of patient harm from falls.

Figure 1. Call for a Helping Hand Patient Letter

TO PREVENT A FALL, PLEASE CALL

New mothers are at risk for falling, even though they may feel strong and steady.

What do YOU need to do?

1) Wear the purple arm band until your nurse removes it. This will alert all staff that you are at risk for falling.
2) CALL for staff help using your call button or phone before getting out of bed.
3) Please do not allow your family members or visitors to assist you out of bed.
4) Ask for non-slip socks. These are available at your request.
5) Keep foot rail on side of bed closest to the bathroom raised to remind you to wait for staff assistance.

We are here for you!
Don’t be shy, ask for help!!

REMEMBER,

“When wearing a purple band,
Call for a helping hand”

Patient _______________________________ Date __________
Significant other _________________________ Date __________
Staff initial ________________

Figure 1. Call for a Helping Hand Patient Letter

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Suggested Clinical Implications

- Traditional Fall Risk Scales do not address the unique characteristics of the postpartum period.
- Postpartum patients have short-term increased fall risks.
- Patient-centered education immediately following birth that includes active involvement and visual cues about risk for falling makes a difference.
- Further research is needed to define fall risk factors in the postpartum population.

Opportunities abound for research as a result of this initial project. Investigation to establish common criteria associated with those patients that did experience a fall can facilitate the development of a fall risk assessment tool that would be specific to the postpartum population. Although a reduction in fall rate occurred, further data could be collected to look at how various types of anesthesia, amount of blood loss, or other birthing factors relate to the incidence of falls. Additionally, the influence of patient participation or engagement in education on the fall risk prevention could lead to its inclusion in evidence-based practice guidelines.

Until now, the focus of fall prevention strategies has been in the adult medical hospitalized or frail elderly population. There are other populations however that have gone unrecognized but yet are at a risk for fall and injury. TJC has called for the development of programs to reduce the number of falls and assess for fall risk in all populations. The experience at this facility has laid the foundation for additional research of a program that will consider not only prevention of falls in a healthy population but also the development of a risk assessment tool that is specific to women in the immediate postpartum period.

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