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Development of an Ambulation Program at Kent Hospital

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DEVELOPMENT
OF AN AMBULATION PROGRAM AT
KENT HOSPITAL

by

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Abstract

An important aspect of nursing care in a hospital setting is mobilizing patients. Numerous studies have documented that prolonged bed rest is associated with negative patient outcomes. An ambulation program can assist patients to maintain functional status during the hospital stay in preparation for discharge. Nurses are the member of the health care team with responsibility for mobilizing patients. In order to do this successfully, nurses require updated knowledge related to implementing an ambulation program. Several factors facilitate ambulating patients on a regular basis, including adequate staffing, appropriate equipment, and availability of a mobility protocol. The purpose of the project was to develop and implement an educational program for nursing staff regarding ambulation of medical-surgical patients in the hospital setting. First, a comprehensive needs assessment was conducted; concurrently, a recently formed Task Force developed a mobility protocol. A two hour educational program was developed based on the literature and clinical experience, with a focus on the negative consequences of immobility in the hospital setting, patient assessments in relation to mobility, the benefits of mobilizing patients, and the role of the nurse and the Physical Therapist with mobilizing patients. The program was implemented and included administration of pre and post surveys and a program evaluation. Results indicated a ten point improvement in knowledge scores from the pre to the post survey, and staff positively evaluated the program. The Advanced Practice Registered Nurse (APRN), especially the Clinical Nurse Specialist (CNS) can play a major role in formally and informally educating nursing staff related to ambulation as well as in development, implementation, and evaluation of a

mobility protocol. Further research regarding what is ‘optimal’ mobility in various health care settings is critically needed. The CNS is the ideal member of the inter-disciplinary team to lead quality and legislative initiatives in this area at the local and national level.

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Background and Significance/Statement of the Problem

Immobility of hospitalized patients is directly related to functional decline during hospitalization (Inouye, Bogardus, Baker, Leo-Summers, & Cooney, 2000). In turn, functional decline contributes to increased falls, delirium, loss of ability to perform activities of daily living, and ambulating dependence (Doherty-King & Bowers, 2011). In contrast, patients who maintain functional status have been identified as having reduced lengths of stay (Padula, Hughes, & Baumhover, 2009). There are many potential contributors to decreased functional status in hospitals, including polypharmacy, intravenous lines, incontinence, indwelling catheters, restraints, sensory deprivation, altered sleep patterns, and lack of nutrition (Graf, 2006). When patients are not ambulating, de-conditioning can occur. During one nurse educator's encounter of being hospitalized for seven days, she was reportedly never ambulated, even though she had inquired about it with the nursing staff. After discharge, the author then required seven weeks of physical therapy to regain her previous functional baseline (Kalisch, 2010a).

The importance of ambulation for the hospitalized patient has often been overlooked in the delivery of nursing care, resulting in ambulation being identified as a missed component of care (Timmerman, 2007). Indeed, early mobilization is the most effective nursing intervention to prevent complications of immobility, specifically those beginning within 24 hours of a patient's hospitalization (Pashikanti & Von Ah, 2012). A qualitative study of 173 nurses in two different acute care hospitals discovered that

ambulation of patients was the first component of patient care omitted. Ambulation was omitted due to communication issues, lack of materials, and inadequate staff resources (Kalisch, 2006). Ambulation remains a strong component of quality patient care (Padula et al., 2009), and an institution's ambulation program could promote mobility and prevent functional decline in patients (Pashikanti & Von Ah, 2012). Yet knowledge of acute care nurses about the importance of ambulating hospitalized patients varies.

Nurses are key to assuring that patients are ambulated and ideally nurses lead that charge. The education of nurses is critical to the successful implementation of a nurse-driven ambulation program. When nurses obtain knowledge, it is anticipated to increase confidence regarding their skills and performance (Wilson et al., 2011). Nurses should ideally develop and implement an ambulation program designed to avoid complications of bed rest and immobility, which may also decrease demands for physical therapy (Wilson et al.). Immobility has been associated with negative discharge outcomes such as functional decline in mobility, compromised respiratory status, and compromised skin issues (Graf, 2006). Thus, implementing an ambulation program, educating nurses to it, and encouraging and monitoring compliance could decrease the cycle of immobilization and debilitation early in hospitalization (Graf). Patients' ambulation in the hallways could assist in maintenance of functional status during hospital stays and decrease the duration of time in the hospital due to the positive effect on strength, balance, and coordination (Padula et al., 2009). The purpose of this project was to develop and implement an

educational program for nursing staff regarding ambulation of medical-surgical patients in the hospital setting.

Next, the review of the literature will be presented.

Review and Critique of the Key Literature

A comprehensive literature review was completed, included the years 1990 to 2013, and utilized search engines CINAHL, Pub Med and Ovid. The following key words were searched: early mobilization; ambulation; mobilization programs; mobility protocols; mobility programs; medical-surgical patients; nursing care; and hospitalized patients. This literature review will provide an overview of the following areas: functional ability; functional decline; consequences of immobility during hospital stays; consequences of immobility on discharge disposition; mobility programs; barriers to ambulation; and educating nurses about ambulation.

Functional ability

Functional ability can be defined as a patient's independence in performing activities of daily living such as feeding, transferring, bathing, toileting, dressing, and continence (Covinsky, Palmer, & Counsell, 2000). Maintenance of functional ability is vital for the physiological stability, strength, and cognitive status of the patient (Doherty-King & Bowers, 2011). Functional ability should be maintained during hospital stays in order to increase circulatory perfusion, increase tissue oxygen levels, and increase peristalsis in order to maintain homeostasis of patients' organs (Kalisch, 2010b). Medical conditions such as pneumonia, urinary tract infections, malnutrition, pressure ulcers, venous thrombus-emboli, pulmonary emboli, and adverse drug events can keep patients from returning to baseline functional ability (Mattison & Marcantonio, 2012). When older patients are hospitalized, the hospital stay can potentially alter their lives; it has

been reported that up to 33% may lose the ability to perform activities of daily living (Arora et al., 2009). In addition to helping to maintain function status, ambulation may promote a sense of well being and enhance functional recovery (So & Pierluissi, 2012). In contrast, immobility can result in functional decline.

Functional decline

Functional decline has been defined as any change in activities of daily living compared to baseline function prior to admission, that impacts functional status during hospital stays (Covinsky et al., 2000). When patients have multiple co-morbidities (Higashi, Wenger, & Adams, 2007), which is typical of older adults, functional decline can occur quickly, depending on the quality of care provided (Min et al., 2007). When people are admitted to the hospital, their function can become rapidly dimished due to spending up to 90% of their time in bed, the presence of medical devices, and symptoms such as fatigue and weakness (Brown, Redden, Flood, & Allman, 2009). Functional decline can also occur in patients when pain, nutrition, and mobility have not been assessed during hospitalization (Arora et al., 2009). Functional decline in hospitalized patients can also occur secondary to decreased muscle mass and other physiologic changes associated with bed rest (Graf, 2006).

The hospital stay may adversely affect the functional outcomes of patients even when they have been admitted with stable baseline functionality. It has been demonstrated that up to 20 hours out of 24 hours in the average day of hospitalized patients, may potentially be spent in bed, leading to a decline in function and specifically

in the ability to ambulate (Brown et al., 2009). To prevent functional decline, bed rest orders should be avoided unless medically required (Graf, 2006), which also assists in preventing the consequences of immobility.

Consequences of Immobility during Hospital Stay

The human body has become accustomed to being mobile for around 16 hours per day and supine and immobile for approximately eight hours per day (Knight, 2009a). Prolonged immobility has multiple affects on the major systems of the body and can result in a negative physiologic response in hospitalized patients on bed rest (Knight, 2009). Immobility of patients may adversely affect the cardiovascular system, contributing to a significant reduction in cardiac output and stroke volume (Graf, 2006). Pooling of body fluids occurs secondary to the release of atrial natriuretic peptide and antidiuretic hormone being disrupted. Cardiac muscle fibers need mobility to maintain strong musculature around the heart for normal heart function (Knight, 2009a). Patients who are immobile have increased risk for respiratory infections due to the collection of mucus which becomes stagnate and provides a medium for infectious growth (Knight).

The gastrointestinal system is negatively effected by immobility; fecal impaction is more likely to occur due to decreased movement of feces and increased water reabsorption through the intestinal tract (Knight, 2009b). Symptoms associated with gastroesophageal reflux disease such as regurgitation and heartburn have occurred with patients who stay in bed (Knight). A major complication of prolonged immobility is sarcopenia due to altered levels of adrenal glucocorticoid hormone. Altered nutrition may

occur, associated with decreased appetite and decreased caloric intake and may result in starvation diabetes. The risk of developing renal stones is increased when patients are immobile due to crystallization of solutes (Knight).

Prolonged immobility has been shown to adversely affect the musculoskeletal system, including loss of muscle strength and endurance as well as bone weakening. Muscle fibers begin to atrophy after just a short period of immobility, and atrophied muscles result in reduced muscle mass, and weight loss can occur (Knight, 2009c). Bones are a reservoir for calcium, phosphorous, and magnesium; when immobility is present, mineral levels decrease and can lead to an increased risk of disuse osteoporosis (Knight).

An individuals' lack of control in a hospital, and needing assistance to just get out of bed, ambulate to the bathroom, and simply stretching of one's legs has a psychological effect (Knight, 2009a). Immobility can lead to decreases in environmental stimuli and social isolation for patients in a hospital setting (Knight, 2009b). Other negative psychosocial effects of prolonged bed rest are boredom, pain, fatigue, and inactivity (So & Pierluissi, 2012).

A patient's ability to return to pre-functional status has been shown to be adversely impacted by immobility in the hospital (Brown, Friedkin, & Inouye, 2004). A prospective cohort study of average mobility levels of 498 hospitalized medical patients found 33% of hospitalized patients were on complete bed rest without ambulation (Brown et al., 2004). Brown et al. documented that patients with low mobility during hospitalization were six times more likely to have functional decline than patients who

were mobile. In an observational, time-sampled study conducted in the hallways of three medical units of a 485 bed hospital, Callen, Mahoney, Grieves, & Wells (2004) examined the ability of 118 patients to ambulate in the hallway. The authors validated that ambulation had been neglected: 73% of patients did not ambulate; 19% of patients ambulated once; 5% of patients ambulated twice; and 3% of patients ambulated more than twice. Even when patients had the ability to ambulate independently, the amount of time spent out of bed was minimal (Brown et al., 2009). The prevention of prolonged immobilization could promote patients' functional status and may lead to positive patient outcomes (Pashikanti & Von Ah, 2012).

When immobility results in functional decline, there is a significant increase in mortality (Brown et al., 2004), longer lengths of stay, greater rehabilitation costs (Chuang et al., 2003), and increased rate of discharges to long term care facilities (Landi et al., 2002). Nurses need to be knowledgeable regarding the importance of preventing immobility during hospitalizations to prevent complications such as deep vein thrombosis, pneumonia, and pressure ulcers (Doherty-King & Bowers, 2011) and to also prevent the many negative consequences of immobility on discharge outcomes.

Consequences of Immobility on Discharge Disposition

Patients are regularly discharged with functional decline as compared to pre-admission functionality secondary to immobility (Kalisch, 2010b). Decreased mobility has been identified as a factor that increases the likelihood of nursing home placement upon discharge (Brown et al., 2004). Studies have shown that 40% of patients 85 years

and older have documented functional decline in the hospital setting and have been discharged to skilled nursing facilities rather than returning to their previous disposition of living at home (Agency for Healthcare Research and Quality [AHRQ], 2010). In a prospective cohort study of 500 acute medical patients in a 900 bed hospital in Israel, immobility of 86% of hospitalized patients had a direct impact on functional decline and in their ability to perform activities of daily living upon discharged. During a one month follow up post-discharge, 73% of those patients continued to exhibit a decline in ability to perform activities of daily living (Zisberg et al., 2011). Low mobility of the hospitalized patient can inadvertently lead to poor outcomes such as a decline in activities of daily living, inability to discharge patients home, and increased skilled facility admissions (Brown et al., 2004).

The maintenance of patients' pre-hospitalization ambulation status should be promoted as much as feasible during the hospital stay (Graf, 2006). When patients are mobilized, functional status can be maintained, with potentially lower incidences of discharge to skilled nursing facilities (Brown et al., 2004). Independence should be encouraged in preparation for discharge. The registered nurse usually spends more time with patients, as compared to other health care professionals, and should assess functional ability and ambulation needs early in the admission in preparation for discharge (Boltz, Capezuti, Shabbat, & Hall, 2010). Early assessment and intervention is needed to prevent de-conditioning and prepare for discharge (Doherty-King & Bowers, 2011). Often a formalized standard of care for mobilizing patients is lacking, so even though nurses may

be aware of the adverse effects of immobility, immobility still occurs (Brown et al., 2009). Mobility programs are key to maintaining functional status and reducing the need for discharge to skilled nursing facilities.

Mobility programs

Emphasis on early mobilization can be formalized in a mobility program. An important component is that patients' should meet certain criteria, such as maintaining stable hemodynamic signs and adequate oxygenation levels (Perme & Chandrashekar, 2009). Nurses should view ambulation as a necessary component of patient care during hospital stays, and mobility programs provide nurses with a mechanism to determine appropriate levels of mobility and to evaluate patients' progress (Timmerman, 2007). The goals of mobility programs should be to have patients obtain a sense of independence and also to ambulate per protocols prior to discharge (Perme & Chandrashekar, 2009). Early mobilization can be expected to improve patient outcomes through decreasing the complications of bed rest such as delirium, pneumonia, decubitus ulcers, increased muscle wasting and physical disability (Kalisch, 2010b), increased patient functionality, decreased lengths of stay, decreased hospital cost, increased quality of life, and stable psychological status (Perme & Chandrashekar, 2009). Nurses can maintain early mobilization through implementation of an ambulation program.

A mobility program should concentrate on ambulating 90% of the patients on nursing units three times a day (Kalisch, 2010b). The process of mobilization in a mobility program could be enhanced if nurses were able to appropriately measure

patients' level of mobility during hospitalization (Pedersen et al., 2012). Pedersen et al. (2012) attempted to quantify standards of mobility in a prospective cohort study in Denmark. Mobility was analyzed in 49 hospitalized patients over a 24 hour period of time. The authors concluded that patients spent 17 hours per day in bed and that their in-hospital mobility levels were dependent on pre-admission mobility status.

The Acute Care for Elders Interventional Program has assisted patients in preventing decline in activities of daily living and decreasing skilled nursing facility placements. This program focuses on fall risk screening and increasing mobility. Specific interventions that the program incorporates include nursing care plans that emphasize disability and establish pre-hospitalization function, stopping bed rest orders while increasing patients' activities as soon as possible, and ordering physical therapy consultations as soon as issues present (Counsell, Holder, & Liebenauer, 2000).

Similarly, The Hospital Elder Life Program (Inouye et al., 2000) has been successful in preventing cognitive and functional decline in patients when hospitalized. In this program, an interdisciplinary team focuses on mobilization of patients to maintain functional status. The program incorporates multiple interventions such as: daily orientation of staff to mobilization goals by utilizing a board; stimulation of cognition three times a day; ambulation three times a day if applicable; utilization of adaptive equipment as applicable as well as assistive devices; twice weekly patient rounds; formal one-on-one interactions and resource materials to educate nurse and physician staffs; and consultation with appropriate specialists such as a geriatrician.

A successful nurse-driven mobility program was established at Miriam Hospital in Providence, Rhode Island. The GENESIS (Geriatric Friendly Environment through Nursing Evaluation and Specific Interventions for Successful Healing) Program consists of a mobility protocol that assists patients to maintain or improve functional ability from admission to discharge. The program was based upon research from the Yale Geriatric Care Program and includes comprehensive education of nursing staff related to geriatric nursing care, including the benefits of mobility. The mobility program follows the mobility protocol that was established to guide the staff in mobilizing patients. The certified nursing assistants (CNAs) assist the registered nurses (RNs) with ambulating patients to the bathroom or commode, out of bed and to a chair for meals, and to ambulate in the hallway (Padula et al., 2009).

The Start from the Heart Program was created in Beaumont Hospital in Michigan as a mobility program (Wilson et al., 2011). The program utilizes an interdisciplinary approach taught by the physical therapy and education departments to educate the CNAs. The 254 CNAs were provided eight hours of training regarding knowledge of mobility, safe patient handling, and prevention of injuries. The educational content included general safety, bed rest effects, fall prevention, the use and demonstration of equipment, ergonomics with patient handling and transfers, and the role of nursing and physical therapy in mobility and communication. The mobility program directed the CNAs to utilize techniques of patient mobility such as proper body mechanics, hand placement,

and adjusting of assistive devices to prevent injuries. The mobility program provided a consistent method of training all CNAs.

CNAs' confidence increased significantly from pre-testing (39+/-6%) to post-testing (46+/-4%). Knowledge increased in all ten questions, from a median of 4.0 pre-test to 7.5 post-test, the mean score was 4.0 pre to 7.0 post. A limitation of the study was that it did not describe specifically the mobility protocol that was used.

Though mobility programs can be highly successful, barriers to implementation exist.

Barriers to Ambulation

The hospitalized patient may encounter symptoms that serve as barriers to ambulation, including weakness, pain, shortness of breath, dizziness, and/or nausea. Nurses need to manage symptoms, including the pain level, as well as patients' fear of injury, in order to maximize positive results with ambulation (So & Pierluissi, 2012). Institutional barriers to ambulation include lack of physician support, lack of nursing support or knowledge regarding ambulation, inadequate patient handling techniques, over use of tethering devices such as an intravenous or indwelling catheter, lack of assistive devices such as a cane or a walker, and being unfamiliar with the lay-out of the hospital itself (So & Pierluissi). Also, hospital environments may not have adequate areas to sit and rest, and often suffer from cluttered hallways, which can serve as barriers to patients ambulating in hallways (Brown et al., 2009).

Other studies have further validated barriers to ambulating patients. Many reasons are identified for missed patient care on medical-surgical units, including failure to mobilize, too few staff, time required to perform a nursing intervention, poor use of existing staff resources, not my job syndrome, and ineffective delegation leading to poor patient outcomes (Kalisch, 2006). Doherty-King and Bowers (2011) noted that nurses agree that mobilizing patients is proper nursing care but it is not always accomplished due to factors such as the physical and cognitive patient characteristics, nurses' abilities and experiences regarding mobilization, and organizational characteristics including resources available, unit activity levels, and unit expectations of the staff.

Successes have been achieved when a combination of factors have been implemented. Interdisciplinary collaboration regarding mobilizing patients and overcoming barriers to patient plans of care related to mobility have benefitted patient outcomes. Implementing and evaluating checklists designed to accurately document mobility as well as building mobility into order sets to specifically identify ambulation at least twice daily have been effective (Mattison & Marcantonio, 2012). Availability and maintenance of equipment such as walkers, canes, and lifting devices utilized for safe patient handling to prevent staff and/or patient injury is essential. Continued emphasis to all staff about the importance of ambulating patients on a continuous basis is needed (Mattison & Marcantonio). Patients and family members need to be involved in the process. An essential component is assuring that nurses are knowledgeable about and invested in the importance of patient ambulation.

Educating Nurses about Ambulation

Development of an ambulation program and educating nurses about it could positively impact nurses' knowledge and potentially promote ambulation of patients. Increasing nurses' knowledge related to the dangers of immobility and benefits of mobility could create positive outcomes for patients through increased mobility (Fisher et al., 2011). Nurses should understand patients' ability to ambulate as part of structured plans of care to accomplish ambulation programs (Winkelman & Peereboom, 2010). Impacting nurses' decisions to ambulate patients includes decreased perceptions of risk to mobilize, enhancing opportunities to ambulate, and increased accountability for ambulating (Doherty-King & Bowers, 2011). Positive outcomes may result from focused staff education including improved quality of patient care, more consistent and frequent patient ambulation, increased safety, decreased falls, decreased pressure ulcers, decreased lengths of stay, increased job satisfaction, and less staff turnover (Wilson et al., 2011). Nurses also need to be aware of the importance of including the patient in the mobility plan in order to promote their day-to-day function (So & Pierluissi, 2012).

Education of nursing staff about mobility should also include safe patient handling since a high correlation exists between staffs' injuries and inappropriate lifting and transferring (Wilson et al., 2011). Safe Patient Handling laws were enacted in 10 states since 2003, with each state having comprehensive programs establishing policies, guidelines regarding training and equipment, collecting data, and evaluating impact (American Nurses Association [ANA], 2011). Nurses should have knowledge and

confidence in patient handling skills to assure patients receive the most appropriate care when being mobilized (Wilson et al., 2011).

In summary, the review of the literature supports the benefits of ambulating hospitalized patients and the dangers of not doing so. Mobility programs have been successful in assisting patients to maintain functionality, prevent complications, and decrease lengths of stay. Nursing staffs should be knowledgeable about the dangers of immobility, the importance of ambulation, and strategies to implement mobility successfully. The purpose of this project was to develop and implement an educational program for nursing staff regarding ambulation of medical-surgical patients in the hospital setting.

Next, the theoretical framework guiding this project will be presented.

Theoretical Framework

The educational intervention for nursing staff will be developed utilizing the W.K. Foundation's Logic Model for Program Development. The Logic Model facilitates effective program planning, implementation, and evaluation (Logic Model Development Guide, 2004). The Logic Model is divided into two different areas that have a connection. The first area is the planned work that is put into the program, which incorporates the resources utilized and the activities that the program should guide with the resources available. The second area is the intended results, or what is hoped that the program should be able to accomplish. There are three aspects that the desired results work within: outputs, outcomes and impacts. The outcomes and impacts should be specific, measurable, action-oriented, realistic, and timed (Logic Model Development Guide).

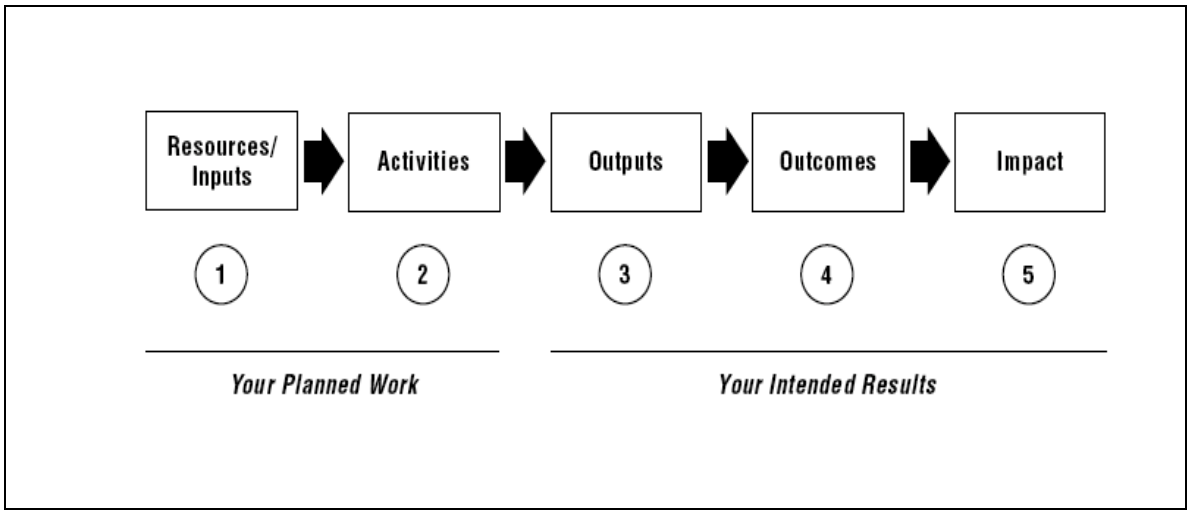


Figure 1. W.K.Foundation Basic Logic Model

The Logic Model encompasses three parts in order to establish an effective and usable program. Program Design and Planning is the first step in the process. In the first

step, a program outline is developed and illustrates how the program development would be accomplished. The targeted audience and the objectives and goals are identified. The program goals represent a major part of the program development that should be taught to the target audience for seamless learning.

The next step in the development process is Program Implementation, where reliability of the program is tested. Data should be collected to validate the potential success of the program. There should be a relationship between the audience learning the content of the program and the desired results of the content taught.

The last step of the model is Program Evaluation and Strategic Reporting. The conclusion of the program is the evaluation of it. The evaluation of the program should be communicated to the primary stakeholders for all to agree how information obtained from the program should be utilized. The program development may need to be altered based on review of the program data post implementation (Logic Model Development Guide, 2004).

Next, the methodology that guided this program development will be discussed.

Methodology/Process for Implementation:

Purpose

The purpose of this project was to develop and implement an educational program for nursing staff regarding ambulation of medical-surgical patients in the hospital setting.

Design

The program development employed a pre-survey, intervention, and post-survey design. The educational program for nursing staff served as the intervention.

Sample/Participants

The target was nurses employed on one of the medical-surgical units at Kent Hospital in Warwick, Rhode Island. All nursing staff, including RNs and CNAs, were eligible.

Site

The program occurred at Kent Hospital. Kent Hospital is one of the three hospitals, including the Butler and Women and Infants Hospitals, which form the Care New England Health Care System. The nursing unit utilized was 3North, a 24-bed medical-surgical unit.

Intervention

The intervention was an educational program developed by the graduate student.

Approvals

Approval was obtained from Rhode Island College's (RIC) Institutional Review Board (IRB) and from Kent Hospital's IRB.

Program Development

Needs Assessment. There are four steps to complete a needs assessment. The first step reviews an institution and its staffs' actual performance against existing standards through a gap analysis. Next, priorities are identified and their importance is verified to ensure that the institution is striving towards appropriate organizational goals. The third step concentrates on organizational performance problems and/or opportunities for the organization to review. Finally, possible solutions and growth opportunities are identified (Rouda & Kusy, 1995).

The needs assessment to develop the educational program began when physicians brought concerns about patients' lack of ambulation to Kent County Hospital's administration. Physicians described wanting to discharge patients but finding that patients had been confined to bed and had become debilitated. The physicians often then ordered physical therapy (PT) consultations to assure patients were ambulated. In response to the physician's concerns, Kent Hospital's president, Sandra Coletta, developed the interdisciplinary Mobility Task Force Committee in April of 2012. The goal of the Task Force was to create mobility protocols for patient ambulation.

At about the same time, the Coordinated Care Department had also reported increased patient discharges to skilled nursing facilities instead of to home and to their previous level of activity. The patients' immobility during the hospital stay had been identified as a contributing factor to the discharge to skilled care. The nursing leadership reported that during daily rounds, patients were predominantly in bed rather than out of

bed. These concerns were also brought to the attention of the Task Force. It was also noted that some institutions have lift teams functioning as patient handlers for transfers of patients and repositioning of patients in bed. However, at Kent, the lift team members' job description focused their time, attention, and efforts on handling difficult patient moves and transfers and not on the routine ambulation of patients. Ambulation was viewed as a nursing staff responsibility but nurses tended not to accomplish the goal.

The Mobility Task Force Committee is an interdisciplinary group comprised of the Vice-President of Patient Care Services, nurse managers, a surgeon representative, a nurse practitioner from the in-patient Hospitalist group, Rehabilitation Services (the director and the lead PT), a registered nurse representative from medical-surgical nursing, a registered nurse representative from critical care nursing, the Geriatric CNS from the Education Department, and Coordinated Care nurses. A needs assessment was also conducted by the committee.

The first step of the needs assessment, or analysis regarding existing standards of patient care (Rouda & Kusy, 1995), confirmed that patients had not been mobilized daily; physical therapy resources were consulted inappropriately for patients' ambulation, and nurses were not consistently performed patient ambulation. The barriers contributing to nurses' inability to ambulate patients were also discussed. Nurses had indicated that they did not have enough staff and lacked adequate assistive devices. There was confusion regarding physician orders concerning the specifics of bed rest and ambulation. There

was a lack of CNA staff for ambulating patients on the unit due to utilizing them as sitters. Finally, the lack of administrative support was also perceived as a barrier.

In response to the nursing issues and in alignment with the second step of the needs assessment, identifying priorities and their importance, (Rouda & Kusy, 1995), the Task Force instructed nursing administration to review staffing complements on the medical-surgical units. A pilot unit was identified and new assistive devices such as walkers, canes, and gait belts were ordered for the pilot unit. The Clinical Informatics Department had joined the Task Force in order to review the computerized physician orders related to ambulation. They established order sets for mobility and clarified existing physician orders to enhance nurses' ability to accurately understand the patients' plan of care. Clinical Informatics staff also updated admission forms to assess patients' pre-admission mobility needs and revised daily flow sheets as well as daily RN Assessment forms, variance forms, and ongoing assessment forms for improved documentation and tracking of the ambulation of patients.

The nursing administration had been involved from the beginning with the Task Force to provide input and insight and support. The involvement of nursing administration was discussed during staff meetings and via email updates. New positions, patient safety monitors, were identified to sit as constant observers for patients who need one-on-one monitoring. The CNAs would then be reassigned and utilized within their scope of practice to provide activities of daily living, including ambulating daily. Patient

Safety Monitors positions had been implemented, but CNAs were only able to ambulate patients on a limited basis due to patient census levels and staffing constraints.

The third step in a needs assessment is identification of performance issues and/or opportunities for an institution to review (Rouda & Kusy, 1995). During one of the meetings, the Geriatric Clinical Nurse Specialist (CNS) and the Director of Rehabilitation Services from Miriam Hospital in Providence, RI were invited to discuss the mobility protocol. The mobility protocol at Miriam Hospital was created with a shared responsibility involving Rehabilitation Services and Patient Care Services. The physical therapist collaborated in educating the certified nursing assistants. The committee agreed that the ambulation program being developed for Kent Hospital should be nurse-driven.

Rehabilitation Services was instructed to continue to assess for appropriateness of consultations, which should focus on gait training and the need for assistive devices rather than ambulation. The Physical Therapy Department had some limitations due to staffing, in-patient census, and demand for rehabilitation services. Ambulation was organizationally acknowledged as a nursing care function. It was agreed that PT should not have direct involvement with the ambulation program on a day-to-day basis after assistance with the active demonstration of the educational program for the nursing staff had been completed. The program's success was identified as dependent on the nurses' role with PT providing collaborative support.

Many ideas were discussed during the various meetings held since April of 2012, including the final step in the needs assessment, the identification of a solution and

growth opportunity (Rouda & Kusy, 1995). Development of an educational program was seen as a critical piece and was supported by the Task Force. Parallel to this project, the Task Force established a mobility protocol for the pilot unit to guide and promote patient ambulation. It was agreed by the Task Force that Rehabilitation Services and nursing educators would be involved in program implementation. The educational intervention would focus on increasing knowledge regarding the importance of ambulating patients, how to deal with barriers to accomplish the ambulation, and the importance of mobilizing patients daily. Active demonstration would be a key program component. The Task Force continued to meet every month to discuss present concerns and future considerations in order to meet the goal of medical-surgical patients ambulating two to three times per day hospital-wide.

The program development served as a pilot project to be evaluated prior to incorporation hospital-wide for all nurses throughout Kent Hospital.

Program Design and Planning

The content taught in this program was developed from the review of the literature, informational exchange that occurred during the Mobility Task Force Committee meetings, and from input and suggestions from the Education Department and the Rehabilitation Care Services Department. The educational intervention was a two-hour presentation that focused on educating nurses about the work of the Mobility Task Force Committee, the dangers of immobility and importance of mobilizing patients, nursing practices related to mobilization, and PT's role, which was accompanied by

active demonstrations of how to properly mobilize patients. The Power Point presentation consisted of 49 slides created by the program developer along with 12 Power Point slides developed by the Lead PT who assisted in the education.

Procedures and Program Implementation

Nurses were recruited to participate in the educational program through posting of an informational flyer (Appendix A) on the unit; the flyer was also emailed via Kent Hospital email to all staff eligible to participate. The informational letter (Appendix B) provided clarity to the staff that attendance at the program was mandatory, but completion of the pre and post surveys was voluntary. Staff members were instructed that they could chose not to complete the pre and post surveys without prejudice. The program developer was available to the 3North staff for any questions or concerns. Staff members were instructed that they could email the graduate student with questions, but none were received. Since attendance at the classes was mandatory, the Nurse Manager of 3North kept track of staffs' sign up for sessions, and all that signed up did attend.

The educational program content supported a mobility protocol and was taught in a two-hour class session. The sessions took place in the Education Department located on the fourth floor of the Trowbridge Building, located on property adjacent to the main hospital. Six classes were scheduled on selected weekdays and at various times, including 8:00am to 10:00am, 1:00pm to 3:00pm, and 4:00pm to 6:00pm, between December 7 and December 20, 2012. The 3North staff were compensated for attending the two-hour educational session.

Prior to the start of each session, nursing staff were presented with the IRB approved informational letter (Appendix B). The letter explained the purpose of the project, that participation in terms of completing the surveys was voluntary, and that staff were free to choose not to complete the surveys. The participants were provided copies of Power Point presentations at the beginning of the session for note taking, as needed, and for reference. Program content and objectives of the education program are in Table 1 on the next page. The content was taught by the master's student in conjunction with the lead PT. Time was planned during the presentations and at the end of the class for questions and answers.

Measurement

A survey developed by Christopher Wilson (2011) was adapted, with his permission, for the purposes of this project. The original survey (Appendix C) was published in an article entitled "The Effectiveness of a Patient Handling Education Program for Nursing Assistants as taught by Physical Therapy and Nurse Educators". In its initial form, the measure had reported validity established by institutional experts at Oakland University and Beaumont Hospital in Troy, Michigan (Wilson et al.).

The adapted survey (Appendix D) was used to measure RNs' and CNAs' knowledge about the importance of ambulating patients in the hospital setting research. The survey was modified significantly to address the purposes of this research. The original post test is illustrated in Appendix C and the survey used in this research is illustrated in Appendix D. The title was changed to reflect that it was used during an

educational program about ambulation at Kent Hospital. All 10 questions were modified to better test the knowledge of both the RNs and the CNAs. The Likert response format used in the original survey was retained.

Table 1

Content Outline and Objectives

Content Outline	Objective of the content
The mobility Task Committee: its beginning, interdisciplinary approach, purpose, and goals.	Identify the purpose and goals of the Mobility Task Force Committee.
Dangers of immobility for hospitalized patients and benefits of ambulation.	State the dangers of immobility for hospitalized patients and the benefits of ambulation.
Critical baseline admission assessments of mobility and the use of assistive devices prior to admission with using the Past History: Functional/Mobility Assessment Form in Cerner.	Conduct an accurate baseline assessment of immobility and the use of assistive devices prior to admission with using the Past History Pre-Admission Assessment Form in Cerner.
Review the mobility protocol with specific criteria that Kent Hospital is supporting to mobilize patients.	Verbalize an understanding of the specific criteria within the mobility protocol.
Review nursing interventions related to ambulation as well as the nurse's role in ambulation.	Describe the nurse's role in ambulation.
Ambulating patients safely: assess for dizziness, lightheadedness, or weakness. Make sure there is adequate lighting, patients use the handrails as needed, and remove all loose cords on the ground.	Describe the techniques to safely ambulate patients.
Review the proper use of mobility aides such as gait belts, canes, and walkers.	Describe the correct use of gait belts, canes, and walkers.
Review appropriate documentation of activity and ambulation in Cerner to assist the staff to appropriately document the ambulation of the patients.	Describe appropriate documentation of ambulation.
Review the role of the PT in regard to patient mobility.	Verbalize a correct understanding of the role of the physical therapist in mobilizing patients.
Demonstrate techniques for assisting patients in ambulating safely utilizing assistive devices as applicable.	Demonstrate techniques to assist patients to mobilize and provide a return demonstration: mobilizing patients safely utilizing assistive devices.

After nurses reviewed the informational letter, they completed the pre survey if they agreed to participate. The pre and post surveys were identical. The survey took approximately five minutes to complete and was given pre and post educational intervention. Nurses selected a unique identifier consisting of a two or three digit number that they could remember and inserted it on the lower left corner of the survey on the last page. When completed, the surveys were collected in a sealed box. At the end of the program, the post surveys were distributed and nurses who agreed to complete them were again asked to include the same unique identifier number as on the pre survey.

Program Evaluation

Evaluating a program is instrumental to the success and potential continuation of that program. After completion of the education session and both surveys, a program evaluation form, created by Rhode Island State Nurses Association (RISNA) and adopted by Kent Hospital's Education Department (Appendix E), was distributed. Staff also had the opportunity to provide comments and recommendations. A gait belt was provided to the staff for safe patient handling with ambulation.

Data Analysis

Data analysis included individual and aggregate pre and post scores. The pre and post survey data was tabulated and graphed.

Next, the results will be presented.

Results

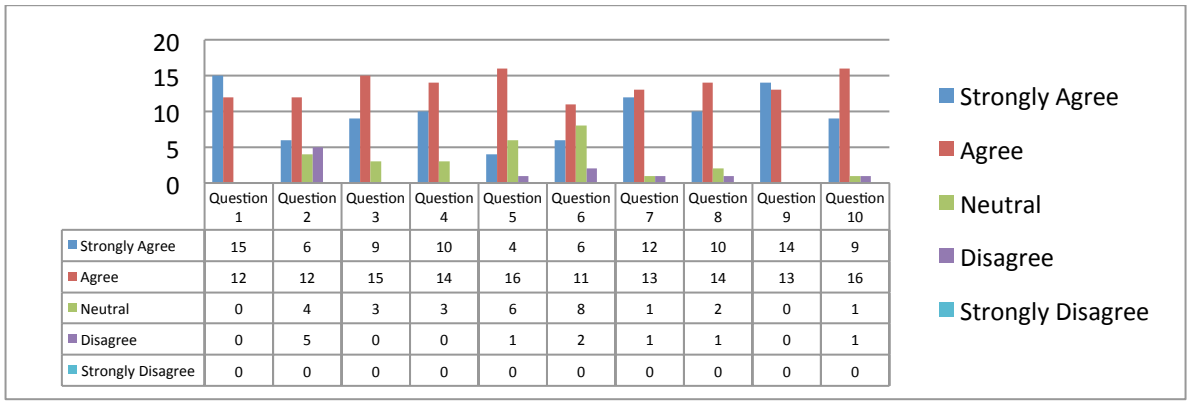
A total of 27 participants completed both the pre and post surveys, including 13 RNs, 4 CNAs, and 10 who did not identify position. The participants' reported shift worked are illustrated in Table 2.

Table 2

Shift Worked by Staff

Shift Worked	Total number of staff
7:00am to 7:30pm	2
7:00pm to 7:30am	1
7:00am to 3:30pm	10
3:00pm to 11:30pm	9
11:00pm to 7:30am	4
Not identified	1

Figure 2 presents the Likert Scale responses of the overall group to the pre intervention survey. The majority of the staff that attended worked eight hour shifts on days and evenings.

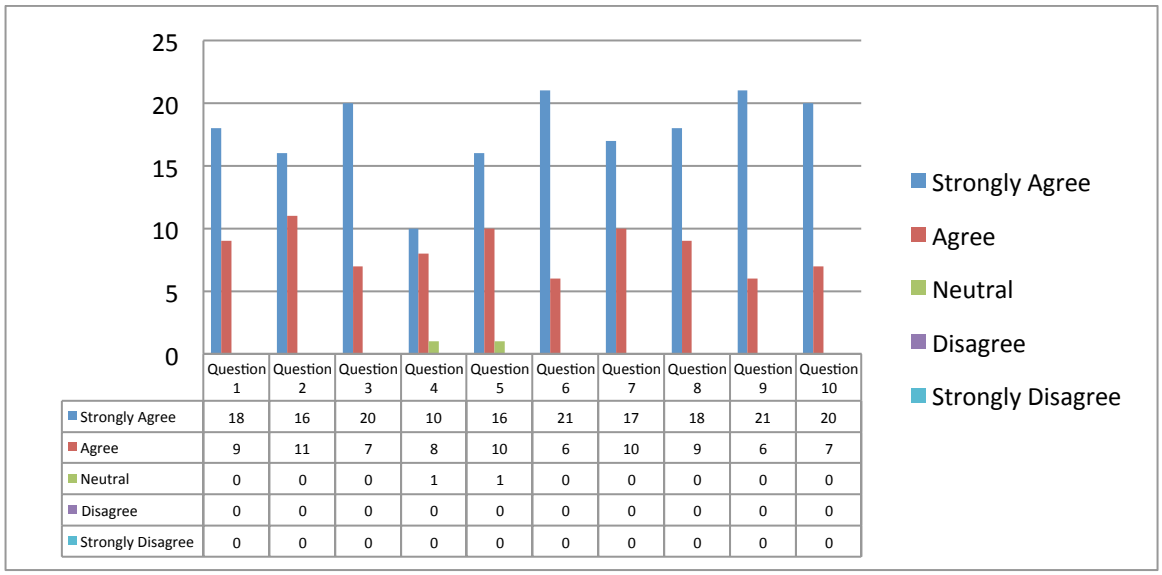


	Question 1	Question 2	Question 3	Question 4	Question 5	Question 6	Question 7	Question 8	Question 9	Question 10
Strongly Agree	15	6	9	10	4	6	12	10	14	9
Agree	12	12	15	14	16	11	13	14	13	16
Neutral	0	4	3	3	6	8	1	2	0	1
Disagree	0	5	0	0	1	2	1	1	0	1
Strongly Disagree	0	0	0	0	0	0	0	0	0	0

Figure 2. Aggregate Pre Intervention Survey Responses by Item

As can be seen, the majority of respondents on all questions agreed or strongly agreed with the items. There were no responses of strongly disagree to any question.

Figure 3 illustrates the post survey responses for the participants overall.



	Question 1	Question 2	Question 3	Question 4	Question 5	Question 6	Question 7	Question 8	Question 9	Question 10
Strongly Agree	18	16	20	10	16	21	17	18	21	20
Agree	9	11	7	8	10	6	10	9	6	7
Neutral	0	0	0	1	1	0	0	0	0	0
Disagree	0	0	0	0	0	0	0	0	0	0
Strongly Disagree	0	0	0	0	0	0	0	0	0	0

Figure 3. Aggregate Post Intervention Survey Responses by Item

Post survey, participants overwhelmingly agreed with all items, with only questions 4 and 5 indicating one neutral response.

For purposes of evaluating pre and post survey scores, responses to the pre and post items were scored in the following way: Strongly Agree=10; Agree=8; Neutral=6; Disagree=4; Strongly Disagree=2. Table 3 illustrates the mean pre and post scores of participants as well as the overall change in scores.

Table 3

Pre and Post Survey Pre and Post Scores and Change Score

ID	PRE SURVEY	POST SURVEY	CHANGE IN SCORE
1	72	96	24
2	88	100	12
3	88	98	10
4	82	88	6
5	80	100	20
6	86	98	12
7	96	100	4
8	92	96	4
9	90	100	10
10	94	100	6
11	84	98	14
12	82	84	2
13	82	94	12
14	78	80	2
15	84	100	16
16	92	100	8
17	92	98	6
18	82	100	18
19	80	100	20
20	74	76	2
21	82	94	12
22	80	80	0
23	64	90	26
24	94	98	4
25	90	98	8
26	72	80	8
27	72	80	8
MEAN	83.4	93.5	10.1

As indicated in Table 3, the mean score on the pre survey was 83.4% and on the post survey was 93.5%. The mean improvement in knowledge between the pre and post surveys was 10.1%. All participants with the exception of participant #22 showed an increase in overall score from pre to post survey; that score remained unchanged.

Program Evaluation

The focus of the evaluations was concentrated on the objectives of the program being met as well as the quality of the presenters (Appendix E). A general evaluation section asked participants to respond to the following question: "I have increased my knowledge of the subject matter". Three open ended questions addressed: application of the content to clinical practice; general comments; and recommendations for future programs. The scale for each was based on a five-point response format: 5-outstanding, 4-exceeded expectations, 3-met expectations, 2-needs improvement, and 1-unsatisfactory.

The evaluations were very favorable. Twenty four participants (89%) indicated either "exceeded expectations" or "outstanding" in evaluating the program. Staff provided some open ended comments including: "explanations and examples are what I liked best about the course"; "nothing could have made the course better"; "useful information that will be utilized in my nursing practice"; and "information was very informative". Some of the comments were focused on potential issues that staff anticipated during the implementation of the actual mobility protocol such as: "reinforcement of team effort"; "need more staffing"; and "ambulating patients is a very important part of patient care but we may need more staff to accomplish it in reality".

Next, summary and conclusions will be presented and discussed.

Summary and Conclusions

Immobility during the hospital stay has the potential for long lasting negative consequences for patients (Inouye et al., 2000). Mobilizing patients has become a missed component of nursing care (Timmerman, 2007). In turn, functional decline associated with immobility contributes to increased falls, delirium, loss of ability to perform activities of daily living, and ambulating dependence (Doherty-King & Bowers, 2011). There are many potential contributors to decreased functional status in hospitalized patients, including polypharmacy, intravenous lines, incontinence, indwelling catheters, restraints, sensory deprivation, altered sleep patterns, and lack of nutrition (Graf, 2006). When patients are not ambulating, de-conditioning can occur in the hospital setting.

Literature has validated that mobilizing patients in the hospital early and often prevents complications and decreases length of stay (Padula et al., 2009). It has also been established that complications of immobility can be prevented with early mobilization within the first 24 hours of admission (Pashikanti & Von Ah, 2012). One contributing factor related to nurses not mobilizing patients is lack of current, updated knowledge regarding risks and benefits. Though nursing students receive education about the benefits of mobilization and the dangers of immobilization, that information is often 'lost' in the fast paced, highly technological and complex reality of acute care hospitals. Nurses need to be supported to maintain the ability to mobilize patients as a part of everyday patient care. One important component is to assure that a patient ambulation program is developed, implemented, and supported. Ambulation remains a strong

component of quality patient care (Padula et al., 2009), and an institution's ambulation program could promote mobility and prevent functional decline in patients (Pashikanti & Von Ah, 2012). Yet knowledge of acute care nurses about the importance of ambulating hospitalized patients varies. Nursing staff, including RNs and CNAs, as well as future hires, should receive the comprehensive education needed to implement a patient ambulation program (Wilson et al., 2011).

The purpose of this project was to develop and implement an ambulation program for nursing staff in the hospital setting. The study question was: What is the impact of an educational program targeted at RNs and CNAs on knowledge regarding mobility? The target was nurses employed on one of the medical-surgical units at Kent Hospital. All nursing staff, including RNs and CNAs, were eligible.

The educational program was created based on a comprehensive literature review and results from a needs assessment. The educational intervention was a two-hour presentation that focused on: educating nurses about the work of the Mobility Task Force Committee; emphasizing ambulation; the dangers of immobility and importance of mobilizing patients, identifying nursing practices regarding assessment and documentation related to mobilization; discussing the RN and CNA role and interventions to mobilize patients; review of the Mobility Protocol established by the Mobility Task Force Committee; and PT's role. The program included active demonstrations of how to properly mobilize patients and the proper use of assistive devices. Program implementation included a pre-survey of 10 questions which tested

nurses' knowledge regarding the information presented in the educational session, followed by the educational intervention, and finally completion of the post-survey and program evaluation. There was sufficient time allotted during each education session for questions and answers.

Twenty seven participants completed the surveys, attended the two hour education session, and completed the post surveys and an evaluation of the program. The mean score on the pre survey was 83.4%, as compared to the post survey mean score of 93.5%. This improvement provided support that the nursing staffs' knowledge increased as a result of the educational program. The participants overall positively evaluated the program.

The total number of participants (n=27) was a good representation of the total nursing unit staff (N=31; 87%). It is recognized that this project represented only one unit in the hospital. Also, RNs and CNAs were trained in the same way, and pre- and post-surveys did not distinguish which role the respondents' represented. Given the differing educational level and experience of these two groups, training and testing separately should be considered, perhaps with some joint components to enhance communication and collegiality.

The staffs' years of experience working with ambulating patients may have altered their answers to the survey questions. In addition, 10 staff failed to identify whether they were RNs or CNAs. The education sessions were offered at different times

of the day. The time of the session may have impacted staff answering of the questions dependant on tiredness or too rushed to get to work after the session was completed.

This educational program served as a pilot, and based on its success, implementation across the hospital is anticipated. The Mobility Task Force Committee considered the results of the ambulation program prior to developing and implementing a plan to educate all the nurses hospital-wide. Subsequently, it was decided that the piloted program was to become the model for the rest of the institution. It was decided that RNs and CNAs will be taught jointly so that both will receive the same information. Though beyond the scope of this project, it remains to be seen if this program and the associated change in knowledge will positively impact actual implementation of the proposed mobility program. The ultimate goal was to have nurses mobilizing patients daily on a regular basis.

A major component needed to incorporate the ambulation program hospital-wide was institutional support. The literature suggested that administrative support of mobility as a standard of care promotes a culture of quality (Doherty-King & Bowers, 2011). Kent Hospital's Administration supported this initiative by their presence and leadership on the Mobility Task Force Committee. The administration was instrumental in collaborative efforts to enhance the ambulation program for its dissemination hospital-wide. Administration collaborated with the Education Department and Nurse Managers to oversee that nurses receive the proper education. Areas of concern presented by the staff regarding teamwork and staffing were addressed through the continued efforts of the

Mobility Task Force Committee. The development of enhanced teamwork modules to add to the piloted program was being considered. Also, operational budgets were reviewed and the need for increased staffing was being monitored and discussed.

In conclusion, the educational program developed for purposes of this project was successful in increasing nurse staffs' knowledge. The mobility protocols developed by the Mobility Task Force Committee now need to be implemented, and compliance needs to be fostered, to ensure proper ambulation of Kent patients as a standard of care throughout the institution. A collaborative effort of the student CNS and Education Department, along with Administrative support under the guidance of the Mobility Task Force Committee, needs to continue to support all components of the mobility program, including the educational program, in order to best assure success.

Next, recommendations and implications will be presented and discussed.

Recommendations and Implications

The nurses' increased knowledge related to mobility as a result of the educational intervention at the study facility was a positive component in the overall evaluation of program effectiveness. Anecdotally, it appeared that patients were being ambulated more consistently on the study unit after completion of the educational sessions. Nurses and members of the healthcare team need to promote mobility and prevention of hospital acquired complications through changes in practice and on-going education and support. The professional development of nursing staff is an important component in improving patient outcomes and safety.

Development and evaluation of evidence based ambulation programs strengthens nursing science and contributes to advanced practice. The education of nurses regarding ambulation of patients begins during nursing school and clinical rotations. The concept of ambulating patients as a standard of care needs to be reinforced in practice, and the philosophy of practice should be that mobility is part of what every nurse perform every day.

There are different methods that can be used to educate practicing nurses, including formal class sessions and online computer based-learning (CBL). Nurses have indicated that independent learning, including use of CBLs, is an effective method that allows them to learn at their own pace (Zadvinskis, 2008). Another successful teaching method is training nurses as unit based trainers or champions. These nurses, after being trained as mobility experts, could be used to orient new staff to mobility protocols, how

to successfully implement them, as well as the use of assistive devices (Zadvinskis). Education to increase nurses' knowledge should include an emphasis on documentation of patient assessments such as pre-mobility status and assistive devices utilized, admission mobility status, and ongoing shift-to shift mobility status. Documentation of patients' mobility is necessary to assure regulatory compliance with The Joint Commission (TJC).

Hospitals likewise need to assure that ambulation is occurring and that it is sustained. A primary goal of the Advanced Practice Registered Nurse (APRN), particularly the Clinical Nurse Specialist (CNS), is to develop and mentor nursing staff in order to improve the quality of patient care. The CNS functions as an expert clinician and as such could be used to train nurse champions in the area of mobility. CNSs are key in developing evidence-based guidelines and protocols, training nurses to them, and evaluating their impact. The CNS is pivotal in changing practice culture, developing and supporting education, and developing methods to measure an ambulation program. Some considerations for monitoring the effectiveness of an ambulation program on a daily basis by the CNS include shift-to-shift report between nurses, daily interdisciplinary patient rounds, compliance with daily documentation, and establishing daily ambulation goals between the nurses, patients, and interdisciplinary team (Doherty-King & Bowers, 2011).

The development of an interdisciplinary team to guide an ambulation program through its development and then sustaining it is instrumental for a programs' success.

Interdisciplinary teams need to meet regularly to discuss ambulation guidelines, review data collected, assist in implementing changes, and follow through with results.

There has been an increased emphasis on implementing mobility programs in hospitals across the country. Implementation of an ambulation program requires overall institutional commitment and resources. Nursing staff and other members of the interdisciplinary team require education as well as support in terms of staffing levels and resources. Proper equipment is needed, including canes, walkers, commodes, shower chairs, geri-chairs, wheel chairs, and gait belts. These devices are necessary to mobilize patients' appropriately and should occur at any healthcare facility to maintain safe patient handling. The acquisition of additional staff to ambulate patients may assist in mobilizing patients, but for most healthcare facilities who are managing on compressed budgets, this may not be possible. Creative thinking will be needed to address this issue, and the CNS can play a key role in these discussions. In the future, ambulation teams, walking clubs, every day mobility rounds, and individualized patient pedometers could be part of enhanced ambulation programs in health care facilities.

Several key organizations provide oversight to health care facilities, including TJC, the state Department of Health, Centers for Medicare and Medicaid Services (CMS). The APRN needs to have a voice in decision making of these organizations. CNSs need to be representatives at the national level during conferences and legislative endeavors to promote mobilizing patients through nursing practices to prevent prolonged complications. TJC has established safety guidelines for healthcare facilities that include

safe patient handling and mobilization of patients. Health care facilities focusing on maintaining the functional status of patients can reduce negative consequences of immobility such as increased falls and pressure ulcers. Mobility programs needs to be part of the continuum of care throughout the health care system, from hospitals to extended care facilities to eventually home, as applicable, in order to improve overall outcomes. The creation of standing ambulation orders and care plans including distance of ambulation, amount of time ambulating, and patients' tolerance of ambulating should be part of healthcare facilities' policies to support and guide an ambulation program.

Again, APRNs, particularly the CNS, could serve as liaisons between health care facilities, facilitating safe transitions and improving outcomes. Implementation of the APRN Consensus Model legislations, whereby the CNS' could legitimately be reimbursed for transition work, could make this a reality. Further research regarding mobility programs is needed. Research to support an ambulation program requires the collection of outcome data related to this nurse sensitive outcome. Mobility compliance, management of co-morbid symptoms that may prevent ambulation, and preventing immobility associated complications such as pressure ulcers and increased falls are key components (Pashikanti & Von Ah, 2012).

Presently there is no gold standard as to what are appropriate levels of mobility under what circumstances. This raises an important clinical question. Incorporation of established, reliable and valid assessment measures to evaluate mobility is indicated (Nolan, Remilton, & Green, 2008). Ambulation programs could be enhanced by

including strengthening and flexibility through tai chi or yoga, both of which have been supported by research.

As the population ages, maintenance of functional status, an important contributor to quality of life, will become increasingly important. A key component of clinical prevention and population health is regular, on-going physical activity. Assuring that all people, regardless of age, ethnicity, or medical condition, are supported by the health care team to maintain physical functioning at the level that they are able is key to the health of our nation.

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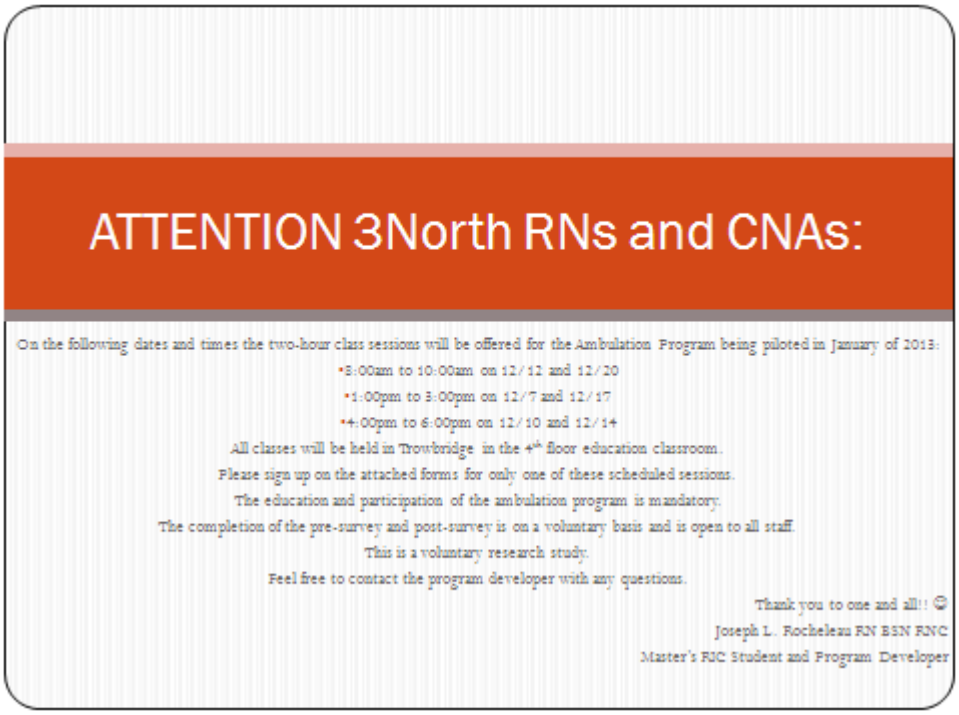
Appendix A

Informational Flyer



ATTENTION 3North RNs and CNAs:

On the following dates and times the two-hour class sessions will be offered for the Ambulation Program being piloted in January of 2013:

- 8:00am to 10:00am on 12/12 and 12/20
- 1:00pm to 3:00pm on 12/7 and 12/17
- 4:00pm to 6:00pm on 12/10 and 12/14

All classes will be held in Trowbridge in the 4th floor education classroom.

Please sign up on the attached forms for only one of these scheduled sessions.

The education and participation of the ambulation program is mandatory.

The completion of the pre-survey and post-survey is on a voluntary basis and is open to all staff.

This is a voluntary research study.

Feel free to contact the program developer with any questions.

Thank you to one and all!! ☺

Joseph L. Rocheleau RN BSN RNC

Master's RJC Student and Program Developer

Appendix B

Informational Letter

To all 3North RNs and CNAs,

I would like to inform you of a research study that you are eligible to participate in. All of the staff on 3North was identified as participants in this study because you work on the pilot medical-surgical unit. The purpose of the study is to identify nurse's knowledge about ambulating patients on a medical-surgical unit. This study is being added to a mandatory two-hour classroom session that teaches the importance of ambulation with the medical-surgical patient during hospital stays. There will be six different sessions to choose from in Trowbridge during the month of December 2012. The mandatory ambulation program will have a specific mobility protocol that should be followed in order to ambulate patients consistently. The ambulation program should be implemented on 3North during the month of January of 2013.

If you participate in the study, you will be asked to answer ten questions to test your knowledge before and after the educational session. The survey requires you to indicate a unique identifier on the last page in the lower left corner to compare both surveys for data collection. The other information asked for on the survey is your licensure and the shift that you work. You can place both surveys in the sealed box before you leave the classroom. Both of the surveys will be anonymous. The data collected from both surveys will be utilized for graphing and trending purposes.

Participation in the surveys is optional and voluntary. You can choose to participate in the mandatory education session without taking the pre and/or post surveys, and there will be no negative consequences.

THANK YOU FOR CONSIDERING PARTICIPATION IN THIS IMPORTANT RESEARCH STUDY BY COMPLETING BOTH THE PRE-SURVEY AND THE POST-SURVEY.

Joseph L. Rocheleau RN BSN RNC

Master's Student Program Developer

Rhode Island College

401-580-4354

Appendix C

Patient Safety Program Survey Posttest from the article "The Effectiveness of a Patient Handling Education Program for Nursing Assistants as taught by Physical Therapy and Nurse Educators"

Patient Safety Program

Survey Posttest
Number:
_____

All responses are anonymous. Please circle the one answer that fits best.

1. I feel that I have the skills to assist an average patient with their daily mobility needs.
A. Strongly Agree
B. Agree
C. Neutral
D. Disagree
E. Strongly Disagree

2. I feel that I have the skills to assist an obese patient with their daily mobility needs.
A. Strongly Agree
B. Agree
C. Neutral
D. Disagree
E. Strongly Disagree

3. Beaumont provides me the tools to assist my patients with their mobility needs.
A. Strongly Agree
B. Agree
C. Neutral
D. Disagree
E. Strongly Disagree

4. I feel confident to plan and coordinate a patient transfer that requires 2-3 people.
A. Strongly Agree
B. Agree
C. Neutral
D. Disagree
E. Strongly Disagree

5. I have a good understanding of what the difference is between Physical and Occupational Therapy.
A. Strongly Agree
B. Agree
C. Neutral
D. Disagree
E. Strongly Disagree

6. I am confident in my ability to make sure a walker or crutches fit my patient.
A. Strongly Agree
B. Agree
C. Neutral
D. Disagree
E. Strongly Disagree

7. I have a good understanding of how to minimize injury during lifting and transfers.
A. Strongly Agree
B. Agree
C. Neutral
D. Disagree
E. Strongly Disagree

8. I am confident in instructing and correcting my patient's technique in using a walker.
A. Strongly Agree
B. Agree
C. Neutral
D. Disagree
E. Strongly Disagree

9. I understand the benefits of preventative positioning and range of motion.
A. Strongly Agree
B. Agree
C. Neutral
D. Disagree
E. Strongly Disagree

10. I am confident in my understanding of the reasons that a patient should not be ambulated or get out of bed.
A. Strongly Agree
B. Agree
C. Neutral
D. Disagree
E. Strongly Disagree (Wilson et al, 2011)

Appendix D

Kent Hospital Ambulation Program

"Putting one step forward"

Pre-Survey: RN or CNA (please circle one)

SHIFT WORKED: _____

All responses are anonymous. Please circle the one answer that fits best.

1. I have the knowledge to assist patients to mobilize on a daily basis.
    a. Strongly agree
    b. Agree
    c. Neutral
    d. Disagree
    e. Strongly disagree

2. I know what the goal of the Mobility Task Force Committee is at Kent Hospital.
    a. Strongly agree
    b. Agree
    c. Neutral
    d. Disagree
    e. Strongly disagree

3. I know what assistive devices are available at Kent Hospital and the proper use of them to assist in ambulating patients.
    a. Strongly agree
    b. Agree
    c. Neutral
    d. Disagree
    e. Strongly disagree

4. I know how to plan and coordinate patient transfers from bed to sitting to standing to ambulating.
    a. Strongly agree
    b. Agree
    c. Neutral
    d. Disagree
    e. Strongly disagree

5. I understand the different roles of PT and Nursing in regards to ambulation.
    a. Strongly agree
    b. Agree
    c. Neutral
    d. Disagree
    e. Strongly disagree

6. I know how to adjust a walker or a cane to assist my patient with safe ambulation.
    a. Strongly agree
    b. Agree
    c. Neutral
    d. Disagree
    e. Strongly disagree

7. I have a good understanding of how to minimize injury to myself and/or the patient during lifts and transfers.
    a. Strongly agree
    b. Agree
    c. Neutral
    d. Disagree
    e. Strongly disagree

8. I am aware of specific patient complications related to immobility and how to prevent them.
    a. Strongly agree
    b. Agree
    c. Neutral
    d. Disagree
    e. Strongly disagree

9. I understand the benefits of increasing mobility in my patients such as decreased patient complications and decreased lengths of stay.

a. Strongly agree
b. Agree
c. Neutral
d. Disagree
e. Strongly disagree

10. I understand the reasons that a patient may not be able to be ambulated or to get out of bed and what I can do regarding exercising them.
    a. Strongly agree
    b. Agree
    c. Neutral
    d. Disagree
    e. Strongly disagree

UNIQUE IDENTIFIER: _____

Appendix E

Kent Hospital

Department of Education

Evaluation Form

A completed evaluation form must be submitted by attendee upon completion of the course, and prior to the awarding of continuing education credits (if applicable).

TITLE: Ambulation Program

DATE: 12/ /2012

5=Outstanding, 4=Exceeded Expectations, 3=Met Expectations, 2=Needs Improvement, 1=Unsatisfactory

OBJECTIVES:	**5**	**4**	**3**	**2**	**1**
Identify the purpose and goals of the Mobility Task Force	☐	☐	☐	☐	☐
Identify dangers of immobility and benefits of mobility	☐	☐	☐	☐	☐
Understand the Mobility Protocol	☐	☐	☐	☐	☐
Understand the nurse's role in mobility	☐	☐	☐	☐	☐
Identify the forms to document in Cerner regarding mobility	☐	☐	☐	☐	☐

5=Outstanding, 4=Exceeded Expectations, 3=Met Expectations, 2=Needs Improvement, 1=Unsatisfactory

PRESENTER: Joseph L. Rocheleau	**5**	**4**	**3**	**2**	**1**
The instructor was prepared in the course's content & activities.	☐	☐	☐	☐	☐
The instructor has an effective presentation style.	☐	☐	☐	☐	☐
The instructor was knowledgeable of the subject.	☐	☐	☐	☐	☐

The instructor used time effectively & properly paced the course.	☐	☐	☐	☐	☐
Conflict of interest was disclosed.	Yes ☐				No ☐

5=Outstanding, 4=Exceeded Expectations, 3=Met Expectations, 2=Needs Improvement, 1=Unsatisfactory

PRESENTER: Kelly Grotzinger	**5**	**4**	**3**	**2**	**1**
The instructor was prepared in the course's content & activities.	☐	☐	☐	☐	☐
The instructor has an effective presentation style.	☐	☐	☐	☐	☐
The instructor was knowledgeable of the subject.	☐	☐	☐	☐	☐
The instructor used time effectively & properly paced the course.	☐	☐	☐	☐	☐
Conflict of interest was disclosed.	Yes ☐				No ☐

5=Outstanding, 4=Exceeded Expectations, 3=Met Expectations, 2=Needs Improvement, 1=Unsatisfactory

EVALUATION:	**5**	**4**	**3**	**2**	**1**
I have increased my knowledge of the subject matter.	☐	☐	☐	☐	☐
I will be able to utilize the skills learned in this class?	☐	☐	☐	☐	☐
The facility was neat, clean and appropriate for learning.	☐	☐	☐	☐	☐

Application:

What did you like best about this course?

_____

_____

What would make this course even better?

_____

_____

Comments:

_____

_____

Recommendations for future programs:

_____

_____