

**THE ADMISSION AND DISCHARGE NURSE ROLE: A QUALITY INITIATIVE TO  
OPTIMIZE UNIT UTILIZATION, PATIENT SATISFACTION, AND NURSE PERCEPTIONS  
OF COLLABORATION**

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## **Abstract**

Registered nurses are at the frontline of the hospital admission and discharge process. Efficiency and collaboration during these processes are critical to the patient care experience and the promotion of safe, high quality care. The aim of this quality improvement initiative was to assess the satisfaction of patients and nurses during the admission and discharge processes as they are streamlined through the initiation of the admission and discharge nurse role. The findings in this report provide insight into the effectiveness and efficiency of such initiatives, highlighting an increase in the number of admissions and discharges and the time taken for completion, in addition to improved nurse satisfaction with the collaborative efforts of the initiative. Understanding the complex health care environment and the need for collaborative relationships among the intraprofessional nursing team is essential to the creation of quality initiatives that focus on the provision of safe and effective care.

*Keywords: admission, discharge, admission and discharge registered nurse, throughput initiatives, collaboration, patient satisfaction, nurse satisfaction, quality improvement, patient experience, observation*

## The Admission and Discharge Nurse Role: A Quality Initiative to Optimize Unit Utilization, Patient Satisfaction, and Nurse Perceptions of Collaboration

The admission process is often regarded as the *front door* experience to the health care facility. Making the all-important positive first impression during the initial interaction between the health care practitioner and patient is imperative to ensure a positive patient care experience. For many patients, the admission into a health care facility is a stressful, frightening, and isolating experience. The patient experience is a significant component of high quality care and patient satisfaction. Health care institutions must understand patient needs and experiences in order to effectively translate this into methods to provide high quality, efficient services (Lambrou et al., 2014; Norton-Westwood et al., 2010)).

It is during the admission process where initial impressions are formed and delays or chaotic processes can negatively effect the patient's perceptions of care, satisfaction, and compound the patient's feelings of anxiety (Norton-Westwood et al., 2010). The admission period is critical to the communication of the patient's past medical history, presenting signs and symptoms, and medication reconciliation to guide the formulation of a plan of care. During the admissions process appropriate medications, diagnostics, and treatments are provided to identify and address those in need of immediate intervention, thereby increasing safe and timely implementation of care.

Registered nurses are at the frontline of the hospital admission process where initial patient assessment data are gathered and utilized to drive the collaborative medical and nursing care efforts. This assessment data identifies treatment plans, safety risks, and provides the foundation for discharge planning. The admission process, initial assessment, and pertinent documentation must be completed in an efficient and effective manner to promote quality of care and safety. Nurses working in the clinical environment are subject to complex nursing care decisions, long hours, shift work, and rapid patient turnover (Hayes, Bonner, & Pryor, 2010). This, compiled with the multitude of documentation requirements can lead to a *revolving door* feeling as one patient is discharged and another is admitted.

This leaves very little time to complete the admission and discharge process and the documentation required in a timely and efficient manner, as they must continue to provide care for their assigned patient load (Giangiulio et al., 2008).

The Institute of Medicine (IOM) identified that medication administration, care coordination, and documentation consume the majority of the nurses' time, noting that approximately less than one-fifth of nursing practice time is spent on direct patient care (IOM, 2010). With the implementation of the admission and discharge registered nurse (ADRN) role in the acute care setting, nurses may be able to reallocate their time allowing for increased participation in direct patient care. Subsequently, this results in an increase in nurse and patient satisfaction and the provision of care that is efficient, effective, and patient-centered.

The perceptions of quality of patient care and collaborative relationships have proven to be statistically significant indicators of job satisfaction for nurses (Chang, Ma, Chiu, Lin, & Lee, 2009). Additional components of nursing satisfaction include nurse practice environmental factors, nurse work characteristics, nurse reported job outcomes, and adverse patient events (Van Bogaert et al., 2014). Teamwork and collaboration with the health care team has been associated with an increase in nursing satisfaction and improved patient outcomes, as higher levels of teamwork have been linked to patient safety and team effectiveness (Kalisch, Lee, & Rochman, 2010).

There is a strong relationship between nursing satisfaction, structural hospital characteristics, quality of care, and patient satisfaction (Boev, 2012; Choi et al., 2014; Lambrou et al., 2014; Norton-Westwood et al., 2010). Patient satisfaction is a multi-faceted, complex concept involving personal, institutional, and environmental aspects. Patient satisfaction has been linked to the nursing work environment and patients' negative perceptions of the environment have the power to influence their level of satisfaction or dissatisfaction with the hospitalization experience (Boev, 2012). Through effective communication and coordination of care between the ADRN, nurse, and patient, the provision of patient-centered care and the dissemination of information and education to facilitate

health promotion for the patient will be possible. This will ultimately create a positive work and care environment for the nurse and patient, respectively.

The efficiency of the admission and discharge process is a critical component to the patient care experience. Patient flow management through the acute care setting has been identified by The Joint Commission (TJC) as a Leadership Standard citing the need for organizations to assess and enhance patient flow initiatives (TJC, 2013). The Institute for Healthcare Improvement (IHI) recommends that health care facilities modify organizational work processes that have the potential to impede patient flow (IHI, 2003). Key components to the optimization of patient flow are addressing the point of admission and the expedition of discharges. Effectively managing the flow and optimizing resources will improve the experience for patients and nurse. This is key in the provision of quality patient care (Kirkbride, Floyd, Tate, & Wendler, 2012).

### **Background Knowledge**

A literature review was completed to identify pertinent research and evidence-based practice that highlights the effectiveness of and supports the need for admission and discharge nurse initiatives in the acute care hospital setting. Factors contributing to nurse satisfaction and patient satisfaction were investigated. These topics were analyzed to determine the effects on work environment, safety and quality of care.

### **Search Methods**

A combination of various search terms were used in the review of electronic databases Cumulative Index to Nursing and Allied Health Literature (CINAHL), Education Resources Information Center (ERIC), Ovid Nursing Full Text PLUS, and ProQuest Education Journals. Search terms included nursing admission, discharge, and transfer programs, nurse communication, nurse collaboration, intraprofessional collaboration, nurse satisfaction, patient satisfaction, patient turnover, observation units, nurse work environment, nurse outcomes, patient outcomes, and admission and discharge processes and efficiency. Initial searches retrieved 37 research studies and each was carefully reviewed

for relevance to inclusion criteria and nineteen research studies were selected and included for analysis and project planning purposes.

## **Review of Evidence**

The Rapid Critical Appraisal Checklist (RCA) by Melnyk and Fineout-Overholt (2011) was used to appraise the selected studies. The analysis of the selected studies lent much credence to the benefits of creation of the ADRN role and the importance of a positive work environment. A positive work environment has been noted to enhance patient and nurse satisfaction and outcomes. Similarly highlighted in the reports, was the need for effective initiatives to enhance the nurse practice environment and patient and nurse satisfaction.

Several reports addressed the implementation of the ADRN role. The utilization of a hospital admission service has demonstrated an increase in the efficiency of the admission process through significantly decreasing the time it takes to complete an admission while still accounting for quality care. This has been shown to lead to an increase in the nurses' assessment of the quality of the admission as well as patient satisfaction (Norton-Westwood et al., 2010). The use of an admission and discharge nursing service will allow the patient an increased sense of calm in an otherwise stressful situation while providing a supportive safety net for the nurse in work processes (Kirkbride et al., 2011).

Initiatives should be created to address high patient turnover and enhance the efficacy of work processes in relation to admissions and discharges in the acute care environment. The impact of patient turnover, including admissions, discharges, and transfers, on nursing work is evident in the literature. Patient turnover is much more than accounting for each admission, discharge, or transfer. The intensity, demands, and patterns of these events must be understood (Jennings, Sandelowski, & Higgins, 2013).

Evidence highlights the association between the quality of nursing practice environments and nurse satisfaction and quality of care (Lambrou, Merkouris, Middleton, & Papastavrou, 2014). Identification of these key themes and the need to address the nurse practice environment to enhance nurse satisfaction, patient satisfaction, and safety go hand in hand. There are direct correlations between

quality of care, leadership and support, staffing and resource adequacy, collaborative relationships, and perceptions of the nursing practice environment (Choi & Boyle, 2014). Negative perceptions of the nurse practice environment create the potential for decreased quality of care. Several studies have identified additional characteristics specific to nurse job satisfaction, citing hospital and nursing unit characteristics, nurse outcomes, empowerment, collaboration, and autonomy (Baernholdt et al., 2009; Breau et al., 2014; Zangaro et al., 2007).

There is literature supporting the relationship between nurses' perception of the work environment and job satisfaction with patient satisfaction. Patient satisfaction in health care is a crucial indicator of quality, especially now as it is associated with hospital reimbursement for services and initiatives for patient and family centered care (Boev, 2012). Nurse caring behaviors have been largely associated with patient satisfaction. Positive connectedness, the provision of education, time spent with the patient, and patient inclusion in care decisions have been indicated in patient satisfaction surveys as essential concepts needed to be exhibited by the nursing profession (Huffines et al., 2013; Palese et al., 2011). These significant relationships support the suggestion that health care facilities should consider investing in the nursing work environment (Boev, 2012).

Team cohesion has been reported as one of the most important reasons for nursing loyalty to an organization (Breau & Rheume, 2014). As coordination and collaboration among team members increases, nurses report a decrease in adverse effects, enhanced job satisfaction, and positive perceptions of the work environment (Havens, Vasey, Gittel, & Lin, 2010). Efforts to improve teamwork and collaboration among nurses in the health care setting would generate a positive impact, leading to cost savings and a decrease in nursing turnover rates (Kalisch et al., 2010)

There is undoubtedly a connection between the nurse practice environment, patient and nurse satisfaction, and quality of care. The implications for the practice environment are critical. Satisfaction among nurses and patients is a complex and multifactorial phenomenon (Hayes et al., 2010). There must be a deep understanding of these occurrences and a strong interest in the creation of a supportive,

collaborative care environment to enhance nurse and patient satisfaction if there are to be effective initiatives for change.

### **Model of Team Effectiveness**

Studies in organizational theory have led to the development of working group and team efficiency frameworks. The Model of Team Effectiveness was devised to account for inputs, process variables, and outputs in order to deepen the understanding the collaborative practice and the relationships between inputs, collaboration, and outcomes (Haward et al., 2003). This model has been utilized within health care organizations to identify conditions conducive to efficient teamwork and the impact on the quality of health care and the wellbeing of team members (D'Amour, Ferrada-Videla, Rodriguez, & Beaulieu, 2005).

Inputs identified in this model include the domain, health care environment, organizational context, task at hand, and team member attributes. Process variables identified for effectiveness are leadership, communication, clarity of objectives, and support for innovation. Outputs are defined as personal effectiveness, achievement of clinical outcomes and quality of care, cost-effectiveness, and innovation. Unit and staff characteristics, the utilization of open communication, good working relationships, common goals, and teamwork have the potential to increase nurse and patient satisfaction and promote efficiency and workflow in the health care environment.

### **Intended Improvement**

The impetus for this project was generated with the input from the observation unit's management and nursing staff voicing concerns over the fragmented and disjointed care experienced due to the frequency of admissions and discharges on this short stay, outpatient unit leaving multiple procedures, treatments, and care to be completed within a short period of time. The staff has indicated that interruptions to admit a new patient or discharge an existing patient affected their ability to provide consistent, timely, individualized care to patients. This is due to juggling multiple priorities that generally occur in rapid succession.



The purpose of this quality improvement project was to address the streamlining of the admission and discharge process in order to improve the care of the observation patient, decrease delays in administration of care, and improve patient flow through expedition of admissions and discharges. The clinical question is how does the implementation of the admission and discharge nurse role effect the observation unit utilization, patient satisfaction, and nurse satisfaction with collaboration, this quality initiative addressed perceptions of patient satisfaction of quality of care and nurse perceptions of satisfaction and collaboration with the ADRN?

## **Methods**

### **Ethical Considerations**

The ADRN initiative did not pose any ethical dilemmas for the registered nurses and patients involved. The Institutional Review Board (IRB) of the medical center and Capella University were consulted and provided necessary approval, as the project did not meet the federal regulation definition of human subject research. Therefore, IRB review and oversight were not needed. All participants were assured confidentiality and anonymity as no demographic information or identifying details were collected.

### **Setting**

The quality improvement project was piloted on the observation unit of a non-profit, 464-bed, community based medical center located in the Mid-Atlantic United States. The observation unit is a twelve-bed outpatient unit with an average length of stay of forty-eight hours or less. The average admission, discharge, and transfer rates per day from January to May 2015 were 16 patients and the nurse-patient ratio is 1 to 5. The most common observation diagnoses are chest pain, abdominal pain, syncope, cardiac dysrhythmias, mood disorders, skin and soft tissue infections, congestive heart failure, chronic obstructive pulmonary disease, and certain postoperative procedures.

## **Population**

The registered nurses of the observation unit of the medical center and all patients admitted and discharged to and from the observation unit were asked to participate during peak admission and discharge periods. The invitation to participate in the project was extended to the seventeen registered nurses of the observation unit through facility email. Explanation of the project aims and intervention modalities were provided via email and an education packet. Registered nurses completing at least one admission or discharge during the two weeks prior to and during the two-week project implementation period were asked to participate. All patients admitted and discharged to and from the observation unit were asked to participate in the project during the two weeks prior to and during the two-week project implementation period.

## **Implementation**

Planning was initiated with key stakeholders and objectives, implementation time frame, and admission and discharge protocols, procedures, and documentation necessities were identified. It was originally planned that the Project Manager would fulfill the role of the ADRN in order to complete the pilot program in a budget neutral manner. However, ultimately, the facility's administration agreed to provide the necessary budget for adequate staffing to fulfill the pilot of the ADRN position. Staffing was modified on the unit to allow a registered nurse with several years experience employed on the observation unit (not the Project Manager) to fulfill the role of the ADRN. The Project Manager did not fulfill any component of the ADRN roles and responsibilities during the pilot program. The Project manager worked with the ADRN and the unit nurses in the planning and implementation phases to ensure the proficiency and efficiency of the project. The Project Manager completed all data collection and analysis for the pilot program.

The role of the ADRN was to facilitate the admission of patients to the observation unit from the emergency room and the post-anesthesia care unit and to assist with the discharge of patients from the unit. During initial planning Tuesday, Wednesday, and Thursday from 3:00 P.M. to 11:00 P.M.,

was identified as the peak time period of admissions and discharges; however, during the ADRN implementation period the actual peak and admission period was noted to be from 10:00 A.M. to 6:00 P.M. Schedule changes for the ADRN were adjusted to reflect this during implementation to have the greatest impact on the outcomes of the pilot. After notification of the admission from the nursing supervisor and the observation unit charge nurse, the ADRN prepared for the admission process and received report. Upon arrival to the unit, the ADRN initiated the standard admission process and completed the required admission documentation, oriented the patient to the unit, and communicated with the patient's primary nurse a verbal and written report utilizing the Situation, Background, Assessment, and Recommendation (SBAR) format. Upon notification of a discharge order, the ADRN initiated the standard discharge process, completed required documentation, provided education to the patient and caregiver when applicable, addressed questions or concerns, and provided information on medications, diagnosis, or follow-up care instructions. A written and verbal report in the SBAR format was provided to the primary nurse of the patient being discharged. In the event of multiple admissions and discharges at any point in time, the ADRN, in collaboration with the charge nurse, prioritized the order and timing of the admissions and discharges based on patient needs and acuity.

### **Methods of Evaluation**

The Collaboration and Satisfaction About Care Decisions (CSACD) tool was developed to assess quality of interaction in making care decisions and satisfaction with the decision making process in the health setting. The CSAD tool is a 9-item tool on a 7-point Likert scale. This tool was adapted with permission from author to assess nurses' perceptions of collaboration and satisfaction with the ADRN in the admission and discharge processes. Content validity for the tool is supported ( $\alpha = 0.95$ ). Construct validity was supported by finding expected correlational patterns and by factor analysis revealing a single factor that explained 75% of the variance in collaboration (Baggs, 1994).

The Newcastle Satisfaction with Nursing Scale (NSNS) tool was used to assess patient satisfaction with the nursing care provided during the admission and discharge process. The NSNS is a

self-administered questionnaire composed of two scales, experiences of care and opinions of care received. The tool has 26 items to assess the experience of nursing care (7-point Likert scales) and 19 items to assess opinions with nursing care (5-point Likert scales). Content validity for the experience scale ( $\alpha = 0.91$ ) and for the satisfaction scale ( $\alpha = 0.96$ ) is supported (Thomas, McColl, Priest, Bond, & Boys, 1996). In subsequent studies, the construct validity of the NSNS was assessed by using the extreme group comparison method and suggested that the results indicate good construct validity (Thomas et al., 1996; Peterson et al., 2005).

### **Analysis**

To answer the clinical question, how does the implementation of the admission and discharge nurse role effect the observation unit utilization, patient satisfaction, and nurse satisfaction with collaboration, multiple metrics and tools were evaluated. Metrics related to the number and timing of admissions and discharges, and the perceptions of patient satisfaction of quality of care and nurse perceptions of satisfaction and collaboration with the ADRN were assessed.

The total number of admissions and discharges and the time taken for each during the peak admission and discharge time periods were evaluated during the two-week time period prior to and during the two-week implementation period. These metrics were assessed and compared pre-and post-intervention. Data surrounding the number of admissions and discharges and the amount of time used by the staff nurses and the ADRN to complete the admission and discharge process was placed into Excel software and analyzed. Descriptive statistics, including the mean and standard deviation, were calculated to identify differences in the number of admissions and discharges and the amount of time utilized for each admission and discharge. This data will provide further information to relate the initiation of the ADRN role to effects on the admission and discharge efficiency.

The Student *t*-test with a significance level of  $\alpha = .05$  was used to examine the differences in the mean values of the total number of admissions and discharges and the total time used by the staff nurses and the ADRN to complete the admission and discharge process prior to and during the pilot

initiative implementation period. It is expected that there will be an increase in the mean number of admissions and discharges during the ADRN pilot initiative. Additionally, it is expected that there will be a decrease in the mean time used for admissions and discharges during the initiative.

The NSNS and CSACD tools were evaluated during the two-week time period prior to and during the two-week implementation period of the initiative. The nurses' and patients' ordinal data responses prior to and during implementation of the ADRN initiative were examined and compared, as all data collected for each survey question on the CSACD tool and the NSNS tool was placed into Excel software to analyze all participants' responses. Descriptive statistics, including the mean and modal scores and percentages of total responses were used to determine whether the difference between observed and expected values of perceptions of satisfaction and collaboration obtained in the data collection period were significant. Pivot tables were created highlighting the frequency of each response and the percentage of the total for each response for both groups of project completing all surveys administered prior to and during implementation of the ADRN initiative. Additionally, side-by-side bar graphs were created to visually examine the responses for each survey item to note differences of each survey question response for all items on the CSACD tool and the NSNS tool.

### **Outcomes**

Prior to the intervention, the mean number of admissions and discharges was 5 per shift ( $SD = 1.72$ ). During the intervention time period the mean number of admissions and discharges per shift was 8 ( $SD = 1.35$ ). A two-sample equal variance t-test identified  $t(20) = 1.71, p = .10$ . This did not provide sufficient evidence to support the expectation of a significant increase in the number of admissions and discharges during the initiative.

Prior to the intervention, the mean time for the completion of an admission or discharge was 39.38 minutes ( $SD = 32.99$ ). During the intervention time period the mean time for the completion of an admission or discharge was 25.62 minutes ( $SD = 13.13$ ). A two-sample equal variance t-test identified a significant effect for time,  $t(75) = 2.53, p = .01$ . This provided sufficient evidence to

support the expectation of a significant decrease in the amount of time utilized for admissions and discharges during the initiative.

There were a total of 39 completed NSNS surveys ( $n = 13$  pre-intervention and  $n = 26$  intervention). The result of the NSNS surveys examining the experiences of nursing care did not show a significant change. The results of the NSNS survey examining the experiences of nursing care showed the mean Likert responses in the intervention period ( $M = 4.94$ ) were increased when compared to the mean Likert responses from the pre-intervention period ( $M = 4.49$ ). The results of the NSNS survey examining the opinions of nursing care showed the mean Likert responses in the intervention period ( $M = 4.73$ ) were increased when compared to the mean Likert responses from the pre-intervention period ( $M = 4.04$ ). There was no change in the modal scores; however, the percentage of the total for each Likert response for both groups of project identified an improvement in overall scores.

There were a total of 77 completed CSACD surveys ( $n = 32$  pre-intervention and  $n = 45$  intervention). The result of the CSACD surveys showed an increase in the mode of Likert scale responses from six to seven, pre-intervention to intervention respectively. Mean Likert responses in the intervention period ( $M = 6.48$ ) were increased when compared to the mean Likert responses from the pre-intervention period ( $M = 4.89$ ). There was no change in the modal scores. The percentage of the total for each Liket response for both groups of study identified an improvement in overall scores.

### **Discussion**

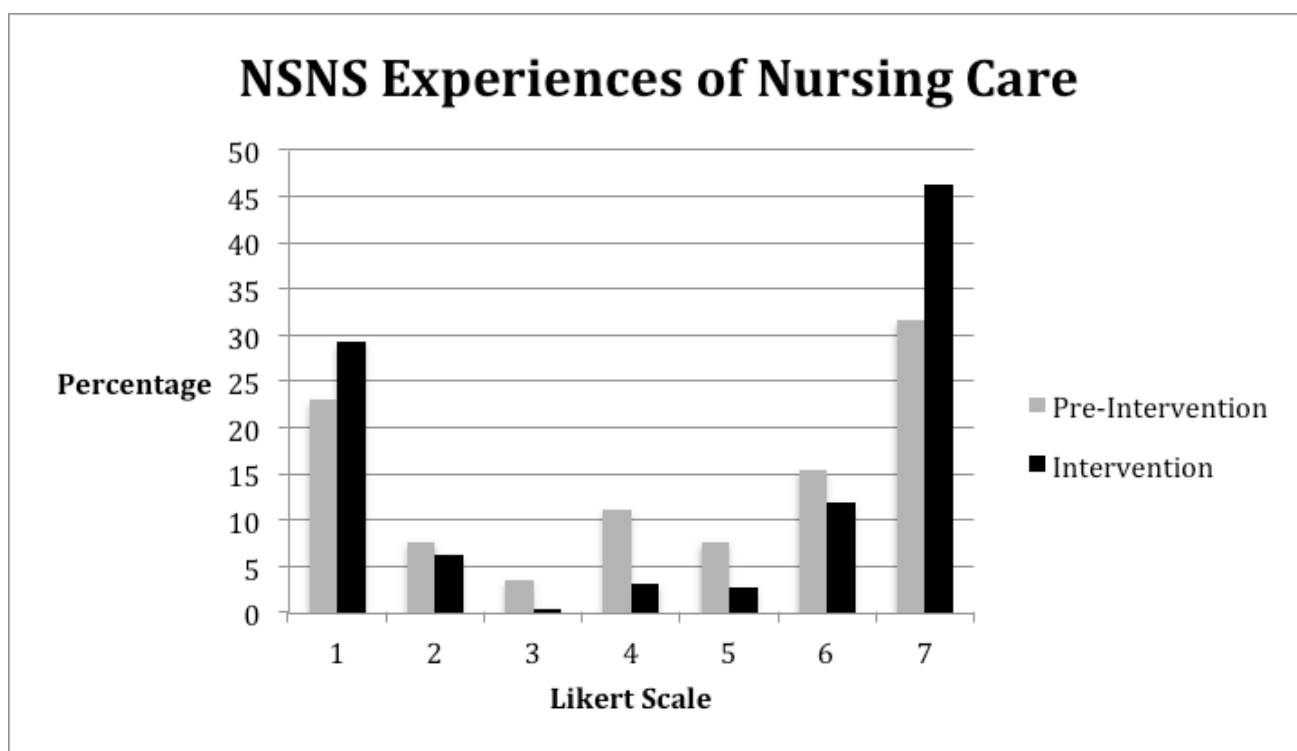
It is likely that extraneous factors, such as low census during the intervention time period and the estimations based on previous data in regards to the peak admission and discharge time periods which did not hold for the initiative, contributed to the lack of a substantial increase in the number of admissions and discharges per shift. Based on the outcomes of this initiative, it is expected that following the period of the pilot, if the hours of the ADRN and number of ADRNs facility wide were

increased based on the priorities of patient flow, census, and acuity for that particular day, there would be an increase in throughput and the number of admissions and discharges completed.

When comparing the time in minutes for the completion of an admission or discharge pre-intervention ( $M = 39.38$ ,  $SD = 32.99$ ) to the intervention time period ( $M = 25.62$ ,  $SD = 13.13$ ), with a two-sample equal variance t-test identifying a significant effect for time, this provided sufficient evidence to reject the null hypothesis. With the mean decrease of 13.76 minutes in the amount of time it takes for the ADRN to complete an admission or discharge versus the primary nurse, this provides information that may support the assumption that the ADRN initiative will allow for an increased throughput and unit utilization while assisting in steadying the workflow processes for the unit nurses. Additionally, noting the differences in the standard deviation from the pre-intervention period to the intervention period, the assumption is made that there is less variability in the amount of time it takes to complete the admission and discharge process. Utilization of the ADRN, a registered nurse with specialized experience in the facilitation of admissions and discharges in a standardized manner, has the potential to contribute to the stabilization of the nurses' workload while providing high-quality, safe care in an accurate and efficient manner.

There NSNS surveys ( $N = 39$ ) examining the experiences of nursing care did not show a significant change from pre-intervention to intervention period. Historically, this unit has received positive patient satisfaction scores. The results of the NSNS survey examining the experiences of nursing care showed the mean Likert responses in the intervention period ( $M = 4.94$ ) were increased when compared to the mean Likert responses from the pre-intervention period ( $M = 4.49$ ). In examining the experiences of nursing care portion of the tool, patients identified their satisfaction and/or perceptions of the nursing care provided during their admission or discharge. Eight items were measured on a Likert-type scale, ranging from one (disagree completely) to seven (agree completely). One item was measured on a Likert-type scale, ranging from one (agree completely) to seven (disagree completely). Nine items evaluated the timely provision of information by the nurse, time allotted to

them, perceived workload of the nurse, interest taken in them by the nurse, provision of information regarding the care of the patient, perceived communication between shifts and with the patient, and perceptions of collaboration within the health care team. As identified in Figure 1, each showed a positive change during the intervention period when looking at the total percentages for each item response. These results indicate positive experiences of the patient regarding the nursing care provided during the admission and discharge process and throughout their stay on the unit.

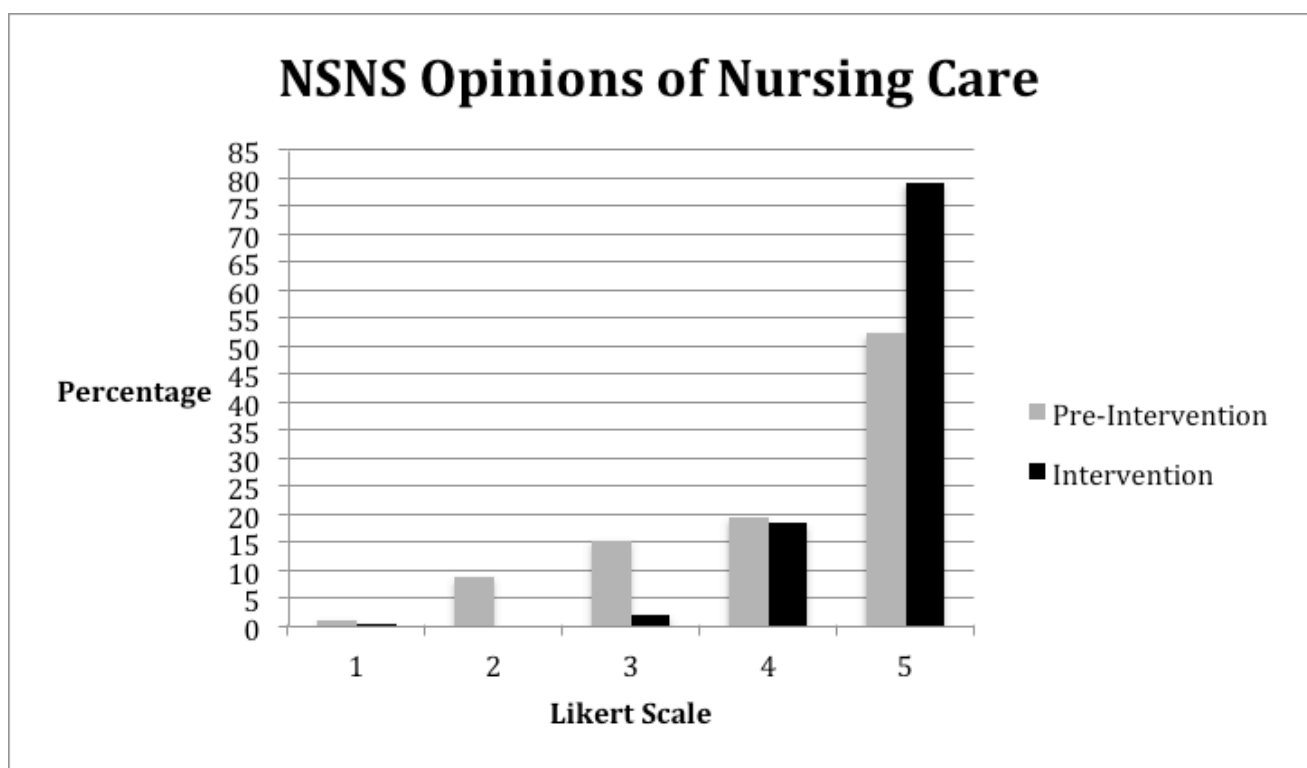


*Figure 1:* Total percentage for each Likert response on the NSNS tool examining experiences of nursing care.

The results of the NSNS survey examining the opinions of nursing care showed the mean Likert responses in the intervention period ( $M = 4.73$ ) were increased when compared to the mean Likert responses from the pre-intervention period ( $M = 4.04$ ). Fifteen items was measured on a Likert-type scale, ranging from one (not at all satisfied) to five (completely satisfied). The majority of these items focused on the patients' opinions of the knowledge, capabilities, helpfulness, manners, awareness, and communications of and with the nurse. Six items were specifically tailored to evaluate



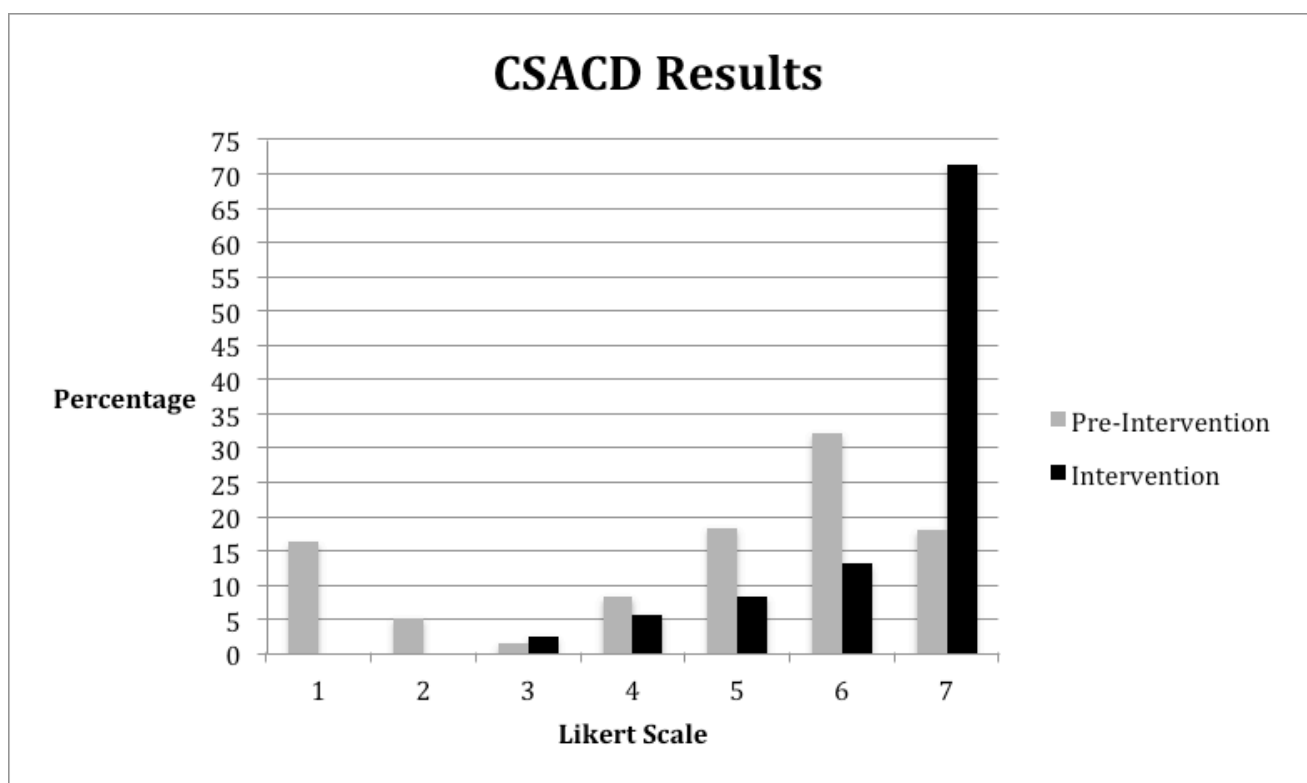
the patients' opinions of the information provided during the admission and discharge process. Please refer to Figure 2 to illustrate the percentage of the total for each Likert response for both groups of study, as this identified an improvement in overall scores. The percentage of the total for each Likert response for both groups of project identified an improvement in overall scores as each showed a positive increase during the intervention period when looking at the total percentages for each item response. These results indicate a positive opinion of the patient regarding the nursing care provided during the admission and discharge process and throughout their stay on the unit.



*Figure 2:* Total percentage for each Likert response on the NSNS tool examining opinions of nursing care.

The nine items on the CSACD tool were measured on a Likert-type scale, ranging from one (strongly disagree) to seven (strongly agree). These items evaluated the nurses' perceptions of collaboration with the ADRN, highlighting factors such as team planning, communication, decision-making, cooperation, acknowledgement of team member concerns, coordination of decision-making, collaboration, and the overall satisfaction with the admission and discharge of the patient. Evaluation

of the CSACD surveys ( $N = 77$ ), pre-intervention to intervention, identified an increase in the mode from six to seven indicating a positive response to the intervention, and an increase in the mean Likert score response. Figure 3 illustrates the percentage of the total for each Likert response for each item for both groups of study. These results lend credence to the statement that the ADRN initiative increases nurses' perceptions of collaboration and satisfaction with the admission and discharge nurse role, citing an improvement in perceptions of team planning and the communication, decision-making, and cooperation within the intraprofessional team.



*Figure 3:* Total percentage for each Likert response on the CSACD tool examining nurse perceptions of collaboration and satisfaction with the ADRN role.

### Limitations

There are limitations to this quality improvement project. First and foremost, there was a decrease in census during the project implementation period, thus a decrease in the number of admissions and discharges per shift. This project was specific to the observation unit. Future expansion

of the pilot to include additional units within the facility may prove beneficial to determine the effectiveness of ADRN initiatives in the acute care setting.

### **Conclusions**

Effectively managing patient flow may be achieved through ADRN initiatives. A rapidly changing environment with high turnover rates and varying patient acuity levels is a challenging aspect of the nursing profession. As demonstrated by the outcomes of this initiative, the utilization of an ADRN to assist in these processes will relieve the burden through assisting in the alleviation of a hectic work environment and steadying workflow process.

High patient turnover leads to an increased demand for care to complete admission, discharge, and transfer processes. The demand for care that nurses experience has the potential to directly affect patient outcomes. The creation of ADRN initiatives to promote throughput and enhance nurse-staffing levels to ensure quality and safety in health care may assist in addressing the complex issue of patient turnover.

Multiple elements coexisting in the healthcare environment can interact in ways that have the potential to affect nurse and patient satisfaction and quality of care. Focusing efforts on the creation of and adherence to measures to increase nurses' positive perceptions of the practice environment and collaboration, in addition to patient satisfaction, through the utilization of evidence-based practice is essential. Through understanding the complexity of the admission and discharge process, organizational support, and quality improvement initiatives to promote intradisciplinary communication and collaboration, such as the creation of ADRN programs, the promotion of a positive working environment, improved satisfaction among nurses and patients, and the provision of safe, effective, efficient, and high-quality care may be achieved.

## References

- Baernholdt, M., & Mark, B. (2009). The nurse work environment, job satisfaction and turnover rates in rural and urban nursing units. *Journal of Nursing Management*, 17(8), 994-1001.  
doi:10.1111/j.1365-2834.2009.01027.x
- Baggs, J. (1994). Development of an instrument to measure collaboration and satisfaction about care decisions. *Journal of Advanced Nursing*, 20(1), 176-182. doi:10.1046/j.1365-2648.1994.20010176.x
- Boev, C. (2012). The relationship between nurses' perception of work environment and patient satisfaction in adult critical care. *Journal of Nursing Scholarship*, 44(4), 368-375.  
doi:10.1111/j.1547-5069.2012.01466.x
- Breau, M., & Reaume, A. (2014). The relationship between empowerment and work environment on job satisfaction, intent to leave, and quality of care among ICU nurses. *Dynamics*, 25(3), 16-24.
- Chang, W., Ma, J., Chiu, H., Lin, K., & Lee, P. (2009). Job satisfaction and perceptions of quality of patient care, collaboration and teamwork in acute care hospitals. *Journal of Advanced Nursing*, 65(9), 1946-1955. doi:10.1111/j.1365-2648.2009.05085.x
- Choi, J., & Boyle, D. K. (2014). Differences in nursing practice environment among US acute care unit types: A descriptive study. *International Journal of Nursing Studies*, 51(11), 1441-1449.  
doi:10.1016/j.ijnurstu.2014.03.001
- D'Amour, D., Ferrada-Videla, M., Rodriguez, L., & Beaulieu, M. (2005). The conceptual basis for interprofessional collaboration: Core concepts and theoretical frameworks. *Journal of Interprofessional Care*, 19116-131.
- Giangiulio, M., Aurilio, L., Baker, P., Brienza, B., Moss, E., & Twinem, N. (2008). Initiation and evaluation of an admission, discharge, transfer (ADT) nursing program in a pediatric setting. *Issues in Comprehensive Pediatric Nursing*, 31(2), 61-70.

- Haward, R., Amir, Z., Borrill, C., Dawson, J., Scully, J., West, M., & Sainsbury, R. (2003). Breast cancer teams: The impact of constitution, new cancer workload, and methods of operation on their effectiveness. *British Journal of Cancer*, 89(1), 15-22.
- Hayes, B., Bonner, A., & Pryor, J. (2010). Factors contributing to nurse job satisfaction in the acute hospital setting: A review of recent literature. *Journal of Nursing Management*, 18(7), 804-814. doi:10.1111/j.1365-2834.2010.01131.x
- Havens, D., Vasey, J., Gittell, J., & Lin, W. (2010). Relational coordination among nurses and other providers: Impact on the quality of patient care. *Journal of Nursing Management*, 18(8), 926-937. doi:10.1111/j.1365-2834.2010.01138.x
- Huffines, M., Johnson, K. L., Smitz Naranjo, L. L., Lissauer, M. E., Ann-Michelle Fishel, M., D'Angelo Howes, S. M., & ... Smith, R. (2013). Improving family satisfaction and participation in decision making in an intensive care unit. *Critical Care Nurse*, 33(5), 56-69. doi:10.4037/ccn2013354
- Institute for Healthcare Improvement. (2003). *Optimizing patient flow: Moving patients smoothly through acute care settings*. Retrieved from <http://www.ihl.org/resources/Pages/IHIWhitePapers/OptimizingPatientFlowMovingPatientsSmoothlyThroughAcuteCareSettings.aspx>
- Institute of Medicine. (2010). *The future of nursing: Leading change, advancing health*. Retrieved from [http://books.nap.edu/openbook.php?record\\_id=12956](http://books.nap.edu/openbook.php?record_id=12956)
- Jennings, B. M., Sandelowski, M., & Higgins, M. K. (2013). Turning over patient turnover: An ethnographic study of admissions, discharges, and transfers. *Research in Nursing & Health*, 36(6), 554-566. doi:10.1002/nur.21565
- The Joint Commission. (2013). The patient flow standard and the 4-hour recommendation. *Joint Commission Perspectives* 33(6), 1-4. Retrieved from <http://www.jcrinc.com/the-joint-commission-perspectives/>

- Kalisch, B., Lee, H., & Rochman, M. (2010). Nursing staff teamwork and job satisfaction. *Journal of Nursing Management*, 18(8), 938-947. doi:10.1111/j.1365-2834.2010.01153.x
- Kirkbride, G., Floyd, V., Tate, C., & Wendler, M. C. (2012). Weathering the storm: Nurses' satisfaction with a mobile admission nurse service. *Journal of Nursing Management*, 20(3), 344-353. doi:10.1111/j.1365-2834.2011.01273.x
- Kutney-Lee, A., Wu, E. S., Sloane, D. M., & Aiken, L. H. (2013). Changes in hospital nurse work environments and nurse job outcomes: An analysis of panel data. *International Journal of Nursing Studies*, 50(2), 195-201. doi:10.1016/j.ijnurstu.2012.07.014
- Lambrou, P., Merkouris, A., Middleton, N., & Papastavrou, E. (2014). Nurses' perceptions of their professional practice environment in relation to job satisfaction: A review of quantitative studies. *Health Science Journal*, 8(3), 298-317. Retrieved from <http://hsj.gr/medicine/nurses-perceptions-of-their-professional-practice-environment-in-relation-to-job-satisfaction-a-review-of-quantitative-studies.pdf>
- Laschinger, H. K., Nosko, A., Wilk, P., & Finegan, J. (2014). Effects of unit empowerment and perceived support for professional nursing practice on unit effectiveness and individual nurse well-being: A time-lagged study. *International Journal of Nursing Studies*, 51(12), 1615-1623. doi:10.1016/j.ijnurstu.2014.04.010
- Melnyk, B. M., & Fineout-Overholt, E. (2011). *Evidence-based practice in nursing and health care: A guide to best practice* (2nd ed.). Philadelphia, PA: Lippincott Williams & Wilkins.
- Norton-Westwood, D., Robertson-Malt, S., & Anderson, R. (2010). A randomized controlled trial to assess the impact of an admission service on patient and staff satisfaction. *International Journal of Nursing Practice*, 16(5), 461-471. doi:10.1111/j.1440-172X.2010.01870.x
- Palese, A., Tomietto, M., Suhonen, R., Efstathiou, G., Tsangari, H., Merkouris, A., & ... Papastavrou, E. (2011). Surgical patient satisfaction as an outcome of nurses' caring behaviors: A descriptive and correlational study in six European countries. *Journal of Nursing Scholarship*, 43(4), 341-

350. doi:10.1111/j.1547-5069.2011.01413.x

- Park, S. H., Blegen, M. A., Spetz, J., Chapman, S. A., & De Groot, H. (2012). Patient turnover and the relationship between nurse staffing and patient outcomes. *Research in Nursing & Health*, 35(3), 277-288. doi:10.1002/nur.21474
- Peterson, W., Charles, C., DiCenso, A., & Sword, W. (2005). The Newcastle satisfaction with nursing scales: A valid measure of maternal satisfaction with inpatient postpartum nursing care. *Journal of Advanced Nursing*, 52(6), 672-681. doi:10.1111/j.1365-2648.2005.03634.x
- Thomas, L. H., MacMillan, J., McColl, E., Priest J., Hale, C. & Bond, S. (1995) Obtaining patients' views of nursing care to inform the development of a patient satisfaction scale. *International Journal for Quality in Health Care*, 7(2), 153–163.
- Thomas, L. H., McColl, E., Priest, J., Bond, S., & Boys, R. J. (1996). Newcastle satisfaction with nursing scales: An instrument for quality assessments of nursing care. *Quality in Health Care*, 5(2), 67–72.
- Van Bogaert, P., Timmermans, O., Weeks, S. M., van Heusden, D., Wouters, K., & Franck, E. (2014). Nursing unit teams matter: Impact of unit-level nurse practice environment, nurse work characteristics, and burnout on nurse reported job outcomes, and quality of care, and patient adverse events--A cross-sectional survey. *International Journal of Nursing Studies*, 51(8), 1123-1134. doi:10.1016/j.ijnurstu.2013.12.009
- Wolf, Z. R. (2012). Systematic review of effect of a caring protocol provided by nursing staff on patient satisfaction of adult hospitalized patients. *International Journal for Human Caring*, 16(4), 58-70.
- Zangaro, G., & Soeken, K. (2007). A meta-analysis of studies of nurses' job satisfaction. *Research in Nursing & Health*, 30(4), 445-45.