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Needs Assessment for Implementation of a Dedicated Admission and Discharge Nurse Position

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NEEDS ASSESSMENT FOR IMPLEMENTATION OF A DEDICATED ADMISSION AND DISCHARGE NURSE POSITION

By

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Abstract

Background: Patient turnover refers to when patients are admitted, discharged, or transferred to or from a clinical unit or another facility. Rapid patient turnover compels nurses to provide care in an environment where clinical demands exceed nursing care capacity. The excess of clinical demands can lead to rationing of nursing care and culminate in nursing stress and dissatisfaction. These negative effects on the nursing workforce subsequently have undesirable implications for patient and hospital outcomes. Implementation of a dedicated admission and discharge nurse (ADN) position can optimize patient flow, improve nursing satisfaction, and ultimately promote positive patient outcomes. **Purpose**: The purpose of this DNP project is to perform a needs assessment to determine if creation of a dedicated admission and discharge nurse position is needed for medical-surgical units at a 300-bed teaching hospital in Southern Nevada. **Methods**: The needs assessment consisted of a survey of nursing perception of admission and discharge practices as well as a retrospective assessment of patient flow data to evaluate unit performance. The admission and discharge survey was administered in July and August 2023. Retrospective data from May 2022-2023 was reviewed to identify opportunities for improvement in nine patient flow measures: ED boarding hours, ED rate of patients who left without being seen, unit rate of early discharges, unit discharge turnaround time (DTAT), unit length of stay (LOS), and unit discharge HCAHPS scores. **Results**: Only 17% (n = 4) of nurse respondents reported satisfaction with the admission and discharge process. Approximately 91% (n = 20) of nurse respondents believe that patient turnover significantly contributes to workflow disruptions. About 86% (n = 19) of the nurse respondents felt that frequent admissions and discharges limit their ability to perform other priority nursing interventions and care for existing patients. Almost all nurse respondents (95%, n = 21) are in support of the creation of a dedicated admission and discharge nurse position. For May 2022 – May 2023, two medical-surgical units did not reach

facility goals for unit LOS (< 5.1 days), discharge turnaround times (< 120 minutes), rate of early discharges before 1100 (25% of home routine), rate of early discharges before 1400 (50% of home routine) and have poor discharge HCAHPS scores. The ED did not reach facility goals for ED boarding time (< 195 minutes) and ambulance diversion time (0 hours). **Conclusions**: The results of the nurse survey and patient flow data review support the need to implement a dedicated ADN position. Review of current patient flow performance has identified areas in which the ADN position can target. Specifically, there is potential for the ADN position to improve unit discharge turnaround time and rate of early discharge which may consequently reduce ED boarding times and unit LOS. The literature review indicates that the ADN position can enhance nursing productivity, bolster teamwork, and offset heavy nursing workload associated with patient turnover. Nurse leaders should consider implementing the ADN position which will enhance patient flow and improve the nursing team's capacity to overcome increased work demands associated with rapid patient turnover.

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Chapter I: Introduction

Registered nurses are responsible for facilitating safe, efficient, and patient-centered care from the moment patients enter through hospital doors to the time they get discharged. During the admission process, nurses are responsible for performing the initial patient assessment that forms the basis of treatment plans, interdisciplinary collaboration efforts, and discharge planning needs. As the counterpart to admission, the hospital discharge process is critical in facilitating safe transitions from the acute care setting to convalescence at home or other facilities (Luther et al., 2019). Nurses must ensure that patients are provided with a comprehensive discharge education that will allow them to effectively manage their health outside of the acute hospital setting (Luther et al., 2019).

Admissions and discharges are clinical transition periods that are frequently complicated by challenges that compromise the quality of healthcare delivery. The clinical environment subjects nurses to complex nursing tasks, long shift hours, diverse patient needs, time-consuming documentation requirements, and rapid patient turnover (Myny et al., 2012). Nurses face mounting pressure to accomplish an overwhelming multitude of tasks to accommodate the needs of current patients and the patients moving in and out of the units (Park et al., 2016).

A critical priority for hospitals is to improve hospital flow by preventing delayed discharges and reducing emergency department overcrowding, which further escalates the time pressure experienced by nurses. Optimization of patient flow will likely increase patient turnover and reduce length of hospital stay (Park et al., 2016). A system that favors shortened hospital stays and increased patient turnover consequently increases nursing workload related to admitting and discharging patients at a higher rate (Myny et al., 2012; Jennings et al., 2013; Park et al., 2016; Vanfosson et al., 2017). A potential intervention to alleviate the burdens associated

with increased patient turnover is the creation of a dedicated admission and discharge nurse (ADN) position. Implementation of the ADN position can enhance nursing productivity, bolster teamwork, and offset nursing workload associated with patient turnover. Ultimately, this position helps increase the nursing team's capacity to match increased work demands while still safely promoting patient flow.

Problem Statement and Significance

Patient turnover occurs when patients are admitted, discharged, or transferred to or from a clinical unit or facility (Park et al., 2016). When this occurs, a significant portion of nursing time (1.6%-32.3%) must be redirected towards activities related to patient turnover (Vanfosson et al., 2017). During this transition period, nurses grapple with an influx of new turnover work despite existing, complex patient assignments and competing clinical priorities. This can lead to fragmented care, workflow disruptions, and turbulence (Jennings et al., 2022; Park et al., 2016). Rapid patient turnover compels nurses to provide care in an environment where clinical demands are not in equilibrium with nursing care capacity (Park et al., 2016). The excess of clinical demands in relation to care capacity can lead to rationing of nursing care and indirectly culminates in nursing stress, dissatisfaction, burnout, and turnover (Vanfosson et al., 2017). These negative effects on the nursing workforce subsequently have undesirable implications on patient outcomes (Vanfosson et al., 2017). Implementation of a dedicated admission and discharge nurse position can optimize patient flow, improve nursing satisfaction, and ultimately promote positive patient outcomes.

Nursing within an acute care setting can be physically demanding, mentally taxing, and emotionally exhaustive. Many medical-surgical nurses work against time scarcity to perform labor-intensive duties such as transferring, repositioning, feeding, and provision of hygiene for 5-

8 patients daily (Phillips, 2020). Furthermore, nursing is an inherently stressful occupation in which workers are often exposed to illness, grief, pain, and suffering. The stressors that exist can be exacerbated by organizational policies and environmental work conditions that bedside nurses have minimal influence over (Sarafis et al., 2016). Examples of organizational policies that aim to improve patient flow, without feedback of bedside nurses, are the expectations to discharge patients within 2 hours of discharge orders or to discharge by 11 A.M.

Excessive occupational stress may significantly impact nurses' quality of life and reduce the quality of care they are able to provide (Sarafis et al., 2016). Furthermore, nurse work overload can potentially threaten patient safety and quality of healthcare delivery. Rapid patient turnover increases nurse workload which then increases risk for unfinished nursing care and medication errors (Park et al., 2016; Vanfosson et al., 2017). Chronic exposure to increased work demands, in combination with limited influence over organizational policies and practices, can culminate in the development of nursing burnout (Sarafis et al., 2016; Vanfosson et al., 2017; Dall'Ora et al., 2020). Nursing burnout has been reported to diminish quality of care, deplete nursing morale, and contribute to high nursing staff turnover (Dall'Ora et al., 2020). According to Phillips (2020), the perception of excessive workload among medical-surgical nurses is correlated with greater intent to resign. Nursing turnover has been documented to force high nurse-to-patient ratios resulting in medication errors, falls, and diminished quality of care (Hayes et al., 2012). It has been estimated that nursing staff turnover costs $21,514 to $88,000 per turnover (Bae, 2022).

Optimization of hospital-wide patient flow remains a high priority for healthcare organizations due to benefits in patient care and financial performance. The Institute for Healthcare Improvement (IHI) urges healthcare organizations to optimize hospital-wide patient

flow by redesigning their practices to match care demands with care capacity (Rutherford et al., 2020). Since patient turnover significantly contributes to the nursing workload, the creation of the ADN role can help increase the nursing team's capacity to meet increased demands related to patient turnover. Moreover, it is essential for organizations to ensure that optimization of patient flow does not occur at the expense of nursing care capacity. The following literature review suggests that directing efforts towards improving nurse work environments and nurse workload can ameliorate nurse and patient outcomes. The creation of a dedicated ADN position can help organizations maximize patient flow efficiency and ensure nurses have adequate resources to achieve this priority.

Purpose Statement

The purpose of this DNP project was to perform a needs assessment to determine if implementation of a dedicated ADN position is needed at medical-surgical units of a 300-bed teaching hospital in Southern Nevada. This project aimed to assess if there is a need to create a dedicated ADN position which may optimize hospital-wide patient flow and simultaneously reduce nurse workload associated with patient turnover. The needs assessment consisted of an assessment of nursing perception of admission and discharge practices as well as a retrospective assessment of patient flow data to evaluate hospital performance. The project will help hospital leadership make data-driven decisions to promote optimization of patient flow and potentially improve nurses' perception of the admission and discharge processes.

Chapter II: Literature Review

A literature review was performed to discern relevant peer-reviewed journal articles that identified practices that optimizes patient flow, elucidate stressors associated with the admission and discharge process, evaluate work circumstances that promote nurse satisfaction, and demonstrate the utility of the admission and discharge nurse (ADN) role in the acute hospital setting. Furthermore, an inquiry of evidence-based literature was performed to identify facets of the ADN role development which includes barriers and facilitators of implementing the ADN position in the acute hospital setting.

Search Methods

Cumulative Index to Nursing and Allied Health Literature (CINAHL), Google Scholar, PubMed, Academic Search Premier, and ProQuest Dissertations and Theses were the databases searched for the purpose of obtaining peer-reviewed literature on patient flow, patient turnover, admissions, discharge, nursing work-overload, burnout, and satisfaction, and the implementation of ADN related roles. The following search terms were used: patient flow, admission and discharge nurse role, nurse burnout, nurse teamwork, nurse satisfaction, nurse workload, patient turnover, nurse work environment, and admission and discharge processes.

Hospital-Wide Patient Flow

Patient flow, also known as patient throughput, is often described as the progressive movement of patients through the hospital without delay (Benjamin & Jacelon, 2021). Conversely, suboptimal patient flow is associated with delays in treatment, unnecessary patient suffering, adverse medical outcomes, and increased healthcare costs (Benjamin & Jacelon,

2021). Suboptimal patient flow is essentially a failure to provide the right care, in the right place, at the right time (Rutherford et al., 2020). Clinical scenarios that contribute to insufficient patient flow include mismatches in bed and staff capacity and demand for clinical services, inefficient processes for admitting, discharging, and transferring patients, and prolonged waits for patient placement transfers to long-term subacute care settings (Rutherford et al., 2020). Patient flow management within a hospital macro system is complex because it occurs within the context of resource scarcity, requires coordination among many different professionals and medical units, and must contend with barriers associated with a wide variety of patient flow pathways within the acute care setting (Benjamin & Jacelon, 2021). According to the IHI's white paper on optimization of patient flow, there are 3 primary approaches to achieving and maintaining constant patient flow: shaping or reducing demand, matching bed capacity with bed demands, and redesigning the system (Rutherford et al., 2020). There is growing evidence that indicates the ADN position can potentially match bed capacity to bed demands and to redesign the system which will be discussed in the literature review below.

Patient flow improvement within an interconnected hospital system requires making meaningful and sustainable changes based on the interdependent nature of individual departments (Rutherford et al., 2020). Changes to patient flow within one department, for worse or for better, will most likely cause a similar effect in another department. For example, delayed discharges in inpatient units will likely cause prolonged ED boarding time and ED crowding. Optimization of patient flow also requires identification of major flow constraints and development of interventions aimed to specifically address or remove them (Rutherford et al., 2020).

The IHI recommends that unit-level and hospital-wide patient flow measures be continuously evaluated for overall system performance and identification for improvement opportunities. Table 1 adopts some hospital-wide and unit-based patient flow measures recommended by the IHI to help identify flow constraints, establish baseline performance, test changes for improvement, and guide the progress of improvement projects (Rutherford et al., 2020). Identifying improvement opportunities and successful strategies for reducing prolonged hospitalizations are pivotal steps in providing the right care, in the right place, at the right time. Reducing hospital stays will prevent overutilization of hospital beds and decrease healthcare costs, while also providing additional bed capacity to accelerate patient progression throughout the hospital stay (Rutherford et al., 2020). A common measure of patient flow is unit and hospital length of stay (LOS). Reducing LOS will prevent unnecessary days in the hospital that may lead to hospital-acquired patient complications and increased costs for patients and healthcare systems (Rutherford et al., 2020).

Although there is a plethora of interventions that may improve hospital flow, the IHI advises hospital leadership to adopt practices that best suit their specific needs and sources of constraints (Rutherford et al., 2020). This DNP project aimed to assess efficiency of patient flow within several departments to determine if the ADN position is an appropriate intervention. The ADN position can help match capacity and demand during periods of heavy emergency department crowding (Haq et al., 2018). Additionally, the discharge nurse role component can promote patient turnover efficiency on medical-surgical units thus increasing inpatient bed capacity by redesigning current admission and discharge practices. The ADN position, which encompasses admission and discharge roles, has been shown to facilitate early discharges (Cyrus et al., 2022; Logsdon & Little, 2020; Montfort, 2021), reduction in ED boarding time (Haq et al.,

2018), reduction in unit LOS (Haq et al., 2018; Logsdon & Little, 2020; Petitgout et al., 2015) and admission time efficiency (Norton-Westwood et al., 2010; Patterson et al., 2007).

Nurses are active directors of patient flow (Benjamin, 2023). Therefore, efficacious patient flow requires sufficient nurse staffing levels, adequate job resources, and appropriate workloads that will allow for the safe advancement of patient care (Benjamin, 2023). Medical-surgical and emergency departments experience frequent patient turnover (Phillips, 2020; Benjamin & Wolf, 2022). Therefore, efforts to optimize patient flow should evaluate efficiency of patient turnover within these departments.

Although promotion of patient flow facilitates timely, safe, and efficient delivery of healthcare, a subsequent increase in patient turnover can also generate problems. Increased patient turnover increases nurse workloads through an increased volume of nursing activities that accompanies the movement of patients (Vanfosson et al., 2017). If this increase in nursing workload is not attenuated by an increase in nursing resources, then patient turnover can induce several negative nursing outcomes (Vanfosson et al., 2017). Utilization of the ADN position can help provide efficient, safe, and timely discharge of patients from medical-surgical units and admission of new patients from the emergency department.

Patient Turnover and Nursing Workload

Advancements in patient flow management strategies have decreased overall patient LOS and thus increased patient turnover (Park et al., 2016). Patient turnover significantly contributes to increased nurse workload due to an increased volume of nursing activities related to patient movement, workflow disruptions, care fragmentation, and increased time burden (Vanfosson et

al., 2017; Jennings et al., 2022). Increased nurse workload, due to rapid patient turnover, has an inverse relationship with positive patient outcomes, specifically resulting in less time directly caring for patients, diminished nursing surveillance, and possibility for missed care or care rationing (Park et al., 2012; Park et al., 2016; Vanfosson et al., 2017; Jennings et al., 2022).

The amount of time needed for nurses to complete the admission process typically ranges from 30 to 90 minutes depending on the specific needs of the patient (Siehoff et al., 2009; Jennings et al., 2013; Norton-Westwood et al., 2010; Gianguilio et al., 2008). The abrupt influx of nursing tasks associated with new admissions causes interruptions in the nursing workflow and compromise work efficiency (Myny et al., 2012). Jennings et al. (2013) described hospital admissions as a "predictably unpredictable" process that can significantly interrupt nursing workflow depending on incoming patients' acuity, new pending orders, and incomplete nursing tasks. Nurses have compared the circumstances of admissions to responding to a cardiac arrest because both events abruptly pull nurses away from other patients for lengthy period and require immediate nursing attention making it difficult for nurses to efficiently manage their time and care for other patients (Jennings et al., 2013).

Hospital discharge is often regarded as the most vulnerable time in healthcare delivery since it impacts how well patients manage their health conditions post-hospitalization (Hayajneh et al., 2020). Poor discharge education can result in serious complications such as adverse medication events, hospital readmissions, exacerbation of chronic health conditions, and even mortality (Hayajneh et al., 2020; Luther et al., 2019). Nurses perceive discharge planning and education as important nursing interventions salient in preventing hospital readmissions (Hayajneh et al., 2020). However, nurses also feel that discharging is stressful and time-

consuming process that is complicated by patients' acuity, delayed medical equipment arrangements, lack of interdisciplinary communication, competing nursing priorities (Hayajneh et al., 2020; Hesselink et al., 2012, Nosbusch et al., 2010). Nurses must dedicate a significant amount of time coordinating discharge planning with other healthcare providers (e.g., physicians, case managers, physical therapists) and individualizing discharge education to ensure patients understand how to effectively manage their medical problems at home (Luther et al., 2019; Vanfosson et al., 2017). Optimal and effective discharge planning should ideally begin on the day of admission. Yet, discharge planning often occurs hurriedly right before the patient leaves due to time constraints and competing clinical priorities (Hesselink et al., 2012). Furthermore, when the rate of patient turnover is high, the provision of discharge education may be rushed or incomplete (Park et al., 2012). This may compromise the quality of essential discharge teachings and potentially contribute to hospital readmissions and post-discharge adverse effects (Park et al., 2012; Hesselink et al., 2012; Fuji et al., 2012).

Impact of Heavy Nurse Workload

Rapid patient turnover increases pressure for nurses to provide care within an environment where clinical demands outweigh nursing care capacity (Park et al., 2016). The excess of clinical demands in relation to care capacity leads to rationing of nursing care and indirectly culminates in nursing dissatisfaction, burnout, and turnover (Vanfosson et al., 2017). Furthermore, these negative effects on the nursing workforce have undesirable implications on patient outcomes (Vanfosson et al., 2017).

Traditional methods of estimating nurse staffing requirements for the day shift are primarily based upon the midnight census (Hughes et al., 2013). This estimate does not consider

increased nurse workload associated with patient turnover (Hughes et. al., 2013; Myny et al., 2012). Oftentimes, nurses grapple with unfavorable work conditions and perceived heavy workload through implicit rationing of nursing care (Mantovan et al., 2020; Harvey et al., 2018; Vanfosson et al., 2017). Rationing of nursing care is defined as the withholding of or failure to carry out necessary nursing interventions due to inadequate work resources (e.g. number, experience, and types of available nursing staff), ineffective teamwork, time constraints, excessive workload, and poor interdisciplinary communication (Papastavrou et al., 2014). Nursing activities most frequently rationed during periods of increased workload include timely response to patient need or request, routine hygiene, documentation of care, facilitation of health education, provision of emotional or psychological support, and interdisciplinary communication (Jones, 2015). Rationing of vital nursing care is associated with multiple negative patient outcomes such as delayed call light response, patient falls, medication errors, decubitus ulcers, nosocomial infections, patient dissatisfaction, and failure to rescue events (Jones, 2015; Papastavrou et al., 2014; Hughes et al., 2013; Park et al., 2012).

A systematic review conducted by Zhao et al. (2021), suggests that an active strategy to overcome implicit rationing of nursing care is to enhance nursing teamwork. Zhao et al., (2021) assert that providing adequate staffing allocation with a reasonable skill mix is the basis of effective teamwork and work productivity. The ADN role has been shown to significantly improve nurse perception of teamwork and reduce perceived workload (Spiva & Johnson, 2012; Giangiulio et al., 2008; Lane et al., 2009). The ADN role may serve as a useful resource to primary bedside nurses, mitigate the challenges associated with patient turnover, and ultimately prevent negative nursing and patient outcomes.

The clinical work environment is a significant factor in nursing perception of workload, satisfaction, burnout, and turnover (Wei et al., 2018). The syndrome of burnout is characterized by physical exhaustion, depersonalization, depletion of emotional resources, and decreased personal accomplishment (Dall'Ora et al., 2020). Burnout can develop when there is a prolonged mismatch between personal resources and dimensions of work: workload, control, reward, community, fairness, and values (Dall'Ora et al., 2020). Nursing burnout has been reported to diminish quality of care, deplete nursing morale, and contribute to high nursing staff turnover (Dall'Ora et al., 2020). Subsequently, nursing turnover has been documented to force high nurse-to-patient ratios resulting in medication errors, falls, and diminished quality of care (Hayes et al., 2011).

Healthy work environments that foster teamwork, promote nurse autonomy, and provide organizational support to staff will more likely observe positive nursing and patient outcomes (Wei et al., 2018). Team cohesion is one of the most significant factors influencing job satisfaction (Lu et al., 2012). A greater degree of teamwork promotes team effectiveness, increases nursing satisfaction, improves patient care productivity, and facilitates nurse retention (Kalisch et al., 2010; Al Sabei et al., 2022). Furthermore, increased collaboration within healthcare teams leads to safer and higher quality of care (Kalisch et al., 2010; Al Sabei et al., 2022). Investing in efforts to improve teamwork and collaboration among nurses in the clinical environment would generate cost savings secondary to positive nurse and patient outcomes (Kalisch et al., 2010; Lu et al., 2012).

The connections among patient turnover, nurse satisfaction, and quality of care are clear and the implications for more supportive workplaces for nurses are critical. There is sufficient

data regarding negative nurse and patient outcomes, associated with high patient turnover, to support the need for hospitals to explore strategies that not only improves the efficiency of patient flow but also improves nursing satisfaction and teamwork during periods of rapid patient turnover.

The ADN Role

There is a growing body of evidence supporting the benefits of the ADN role in various acute care settings. The ADN role can be further broken down into two distinct roles as the admission registered nurse (ARN) and discharge registered nurse (DRN). The results of studies pertaining to ADN/ARN/DRN role implementation generally revealed positive improvements in various nursing and patient outcomes. Some studies have also reported positive financial effects and optimization of patient flow.

The duties of the ARN role may include transferring patients from ED to inpatient unit, performing initial assessments, completion of admission history documentation, medication reconciliation, performing new orders (Homola & Fuller et al., 2008; Spiva & Johnson, 2012; Kirkbride et al., 2012; Norton-Westwood et al., 2010). The implementation of the ARN role has significantly improved nurse satisfaction by reducing perceived workload and allowing primary nurses to complete other priority tasks before focusing on a new patient's needs (Norton-Westwood et al., 2010; Siehoff et al., 2009; Kirkbride et al., 2012; Homola & Fuller, 2008; Hlipala et al., 2005). Nursing satisfaction also improved due to the perception of increased nursing resources and supportive teamwork (Kirkbride et al., 2012; Siefhoff et al., 2009; Homola & Fuller, 2008). Completion of admission duties by the ARN produced time savings of 30-60 minutes (Hlipala et al., 2005). Norton-Westwood et al. (2010) found that implementation of the

ARN position reduced the mean admission time from an average of 2 hours to 30 minutes post-intervention. Similarly, Homola & Fuller (2008) reported admission times were reduced from an average of 90 minutes to 24 minutes post-ARN implementation. Additionally, 40% of patients are admitted in less than 15 minutes and 75% in less than 30 minutes (Homola & Fuller, 2008). Kirkbride et al. (2012) also reported improvements in effective handoff communication in which the ARN alerted the primary nurse to patient symptoms that require immediate attention or close monitoring. Admission assessments were deemed more comprehensive when it was performed by the ARN (Norton-Westwood et al., 2010; Siefhoff et al., 2009). Patient satisfaction with nursing communication and education practices were higher when the ARN role was utilized (Norton-Westwood et al., 2010).

The duties of the DRN role typically includes comprehensive discharge planning and education (Logsdon & Little, 2020; Ciaramella et al., 2014; Busch & Cady, 2021; Petitgout, 2015). The DRN role has been reported to improve the discharge experience of patients based on improvements in Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) discharge scores (Petitgout et al., 2015; Ciaramella et al., 2014). Additionally, the DRN role positively enhanced patients' and caregivers' discharge readiness, self-care ability, and patients' understanding of critical discharge teachings (Petitgout et al., 2015, Vigna et al., 2018; Logsdon & Little, 2020; Busch & Cady, 2021). Nurses report increased satisfaction, with DRN role implementation, due to fewer interruptions in workflow and less perceived workload (Ciaramella et al., 2014; Logsdon & Little, 2021, Monfort, 2021). When discharge education was facilitated by a DRN, discharge education was perceived by nurses to be more consistent and standardized (Petitgout, 2015; Vigna et al., 2018; Logsdon & Little, 2020)

When the two distinct roles of the ARN and DRN are combined into the implementation of the ADN position, it has been reported to significantly reduce primary nurses' perception of workload and consequently improve their work satisfaction (Spiva & Johnson, 2012; Giangiulio et al., 2008; Lane et al., 2009; Blankenship & Winslow, 2003). Many nurses attributed their satisfaction to less workflow interruptions and having the ability to allocate more time to completing other priority nursing tasks while the ADN performed admission assessments, completed new orders, and supplemented discharge planning and education (Giangiulio et al., 2008; Lane et al., 2009). Researchers examined admission and discharge logs over 3 months which revealed a reduction in nurses' workload of 1 hour 12 minutes per day (based on an average of 1.5 hours for admissions and 0.5 hours for discharges) (Lane et al., 2009). Overwhelmingly, utilization of an ADN promoted increased sense of nursing teamwork, care delegation, and work efficiency (Spiva & Johnson, 2012; Giangiulio et al., 2008). On occasion the ADN quickly identified newly admitted patients who were rapidly deteriorating on medical-surgical units and assisted with immediate transfer to the intensive care unit (Spiva & Johnson, 2012). Nurses have also reported diminished desire to leave their current job as the result of the improved work environment facilitated by ADN role (Lane et al., 2009). Patient satisfaction also improved with ADN role implementation because they perceived that their needs were met in a time-efficient manner by the nursing team (Giangiulio et al., 2008).

The ADN/ARN/DRN roles have improved patient flow and optimized patient throughput. Spiva & Johnson (2012) observed reduction in mean time of admission process completion from 90 minutes to 57 minutes. Handy (2016) reported improvement of admission and discharge times from an average of 39.38 minutes to 25.62 minutes. Haq et al. (2018) reported that the ADN intervention significantly reduced average emergency department

boarding times by 16 minutes, increased rate of early discharges (before 2pm) by 5%, and decreased length of stay for observation admissions. Kirkbride et al. (2012) reported that the average ED length of stay decreased by roughly 20 minutes following ARN role implementation. Logsdon & Little (2020) reported a decrease in hospital LOS from 97.16 hours to 85.24 hours and improvement in average percentage of patients discharged before noon for 18 from 31.68% to 44.39% post-DRN implementation (Logsdon & Little, 2020). Petitgout et al. (2015) observed a reduction in LOS from an average of 1.94 days to 1.0 day with the utilization of DRNs.

The potential financial benefits of implementing the ADN role stem from patient flow optimization. Haq et al. (2018) asserted that the ADN role facilitated a small but significant reduction of 16 min in ED boarding time which can financially improve the hospital budget. A reduction of 0.1 day in hospital length of stay can generate 6.5 virtual bed capacity per day which indicates that small reductions in average length of stay can create significant bed capacity (Haq et al., 2018). Furthermore, reducing ED boarding time by 16 minutes can increase ED capacity to 2 new patients per day, promote ED volume growth of 1.4% per year or 11.2 hours per day of ED bed time, increase ED revenue by $4,172,464 per year, and facilitate 0.6 additional admissions per day. Ultimately, this would generate $3,473,246 per year from inpatient service (Haq et al., 2018). Since the ADN-related positions have been demonstrated to reduce ED overcrowding and promote earlier rates of inpatient discharge (Haq et al., 2018; Kirkbride et al., 2012; Logsdon & Little, 2020; Monfort, 2021; Patterson et al., 2007; Cyrus et al., 2022), these improvements can potentially prevent financial losses associated with ambulance diversion time and patients who left without being seen (Artenstein et al., 2017). Salway et al. (2017) asserts that each patient walkout from the ED represents roughly $600 to $800 in lost revenue which does not include the financial loss of a potential admission

among the walkouts. According to Pines et al. (2011), a 1-hour reduction in ED boarding time, at an inner-city teaching hospital with roughly 118,000 ED visits yearly, would result in $9,693 to $13,298 of additional daily revenue from capturing left without being seen and diverted ambulance patients.

Although there are many advantages that have been reported, barriers to implementing ADN/ARN/DRN roles have been reported as role confusion among staff nurses, limited budget, and inadequate staffing (Petitgout, 2015; Ciaramella et al., 2015). One potential barrier to role implementation could be that nursing staff would speculate that all initial and final health education as the responsibility of the ADN/DRN/ARN, and therefore not conduct any vital patient teaching (Ciaramella et al., 2014). Nursing leadership needs to clearly communicate that the primary nurse will retain the responsibility of all vital health education and that the ADN/DRN/ARN will be supplementing previous health teachings to eliminate chances for role confusion or omission in vital health education (Ciaramella et al., 2014; Kirkbride et al., 2012). When the roles of the ADN/DRN/ARN are clearly distinguished to eliminate role confusion among staff nurses, effective collaboration and task delegation can occur (Ciaramella et al., 2014). Utilization of the SBAR handoff tool between the ADN and primary nurses can also ensure clear intradisciplinary communication regarding patient admission and discharge needs (Giangiulio et al., 2008). Another potential barrier to ADN role implementation is the lack of staff budget to fund creation of a new RN position. Therefore, hospital leadership and research teams had to be more strategic in the development and implementation of the ADN role with consideration to staff ratios and unit budget. Several studies identified peak hospital admission and discharge times and only assigned the ADN work hours to coincide with times when the highest rates of patient turnover would occur (Kirkbride et al., 2011; Haq et al., 2018; Giangiulio

et al., 2008). This allowed research teams to utilize the ADN role only when necessary and to have the most impact in productivity and teamwork (Kirkbride et al., 2011; Haq et al., 2018; Giangiulio et al., 2008). Some studies reallocated float pool nurses or non-clinical nurses (e.g., education nurses) and transformed their role to adopt the duties of the ADN to avoid exceeding their staff budget (Giangiulio et al., 2008). While some staff nurses volunteered to be the ADN for the duration of the research intervention which also prevented teams from exceeding staff budget (Siehoff et al., 2009). Vigna et al. (2018) were able to implement the DRN role by encouraging staff RNs to sign up for one extra hour shift a week to avoid incurring overtime salary thus making it financially feasible. The rigor of literature on the ADN position is another limitation since most studies found were QI projects that lacked randomization, a control group, and validated survey instruments.

Despite the mentioned barriers and challenges, the existing literature regarding both the ARN and DRN roles have demonstrated positive outcomes for nurses and patients that outweigh the negatives. Since the duties of the ADN essentially encompass both roles, the implementation of the ADN position would ideally produce the most optimal nurse, patient, and financial outcomes as demonstrated by previously mentioned studies. The ADN/ARN/DRN roles have been successfully employed in a wide range of specialties such as adult medical-surgical, emergency, pediatrics, and postpartum units (Petitgout, 2015; Spiva and Johnson, 2012; Ciaramella et al., 2014; Haq et al., 2018). The positive improvements observed with the utilization of the ADN/ARN/DRN role by a wide range of unit specialties validate the ADN role as a valuable resource in a broad variety of medical settings and patient populations. Based on the literature review, there is great potential for the ADN position to improve nurse and patient outcomes, optimize hospital flow, and increase cost-savings for the organization.

Chapter III: Project Description

This DNP Project was a process improvement initiative that seeks to assess the need to implement a dedicated admission and discharge nurse (ADN) position to optimize patient flow with consideration to the prevention of excessive nurse workload associated with increased patient turnover. Ultimately, this DNP Project aims to help hospital leadership make data-driven and evidence-based decisions to promote optimization of patient flow while simultaneously improving nurses' perception of the admission and discharge processes.

Key Stakeholders and Personnel Resources

Stakeholders of this DNP Project includes the DNP student investigator, medical-surgical nurse managers, the Chief Nurse Officer (CNO), the Assistant CNO, the Chief Financial Officer (CFO), the quality improvement department, medical-surgical nurses, and patients. Findings from this project can help hospital leadership make critical decisions about patient flow optimization. Assessment of recent patient flow performance and nursing perception of clinical transition periods will help guide the direction of future patient flow optimization initiatives within our organization. The CFO, unit nurse managers, risk management, quality improvement and informational technology (IT) staff assisted the DNP student with accessing the electronic health record system, data collection, and interpretation of patient flow measures. This is further discussed in the Methodology chapter.

Project Mission, Goals, Objectives, and Timeline

- Mission: The mission of this project is to perform a needs assessment of the ADN position. This will help determine whether the ADN role can mitigate identified patient

flow insufficiencies within our facility and potentially improve nursing perception of current admission and discharge processes.

- Goals:
    - Assessment of medical-surgical nurses' perception of current admission and discharge process.
    - Collect and evaluate patient flow data (from May 2022- May 2023) of medical surgical units (3 Tower and 4 Tower) and emergency department (ED) to identify improvement opportunities in patient flow performance (see Table 1 for list of measures).
- Objectives and Timeline:
    - DNP Project Proposal in **April 2023**
    - Submit project proposal for UNLV's Institutional Board Review in late **April 2023**.
    - Obtain IRB approval in **May 2023**
    - Administer admissions and discharge nurse survey in **July-August 2023**
    - Collection of patient flow data in **August 2023**
    - Complete nurse survey and patient flow data evaluation by **October 2023.**
    - DNP Project Defense in **March 2024**
    - Project dissemination with hospital leadership team by **May 2024**

Theoretical Underpinnings

The purpose of this project was to assess if there is a need to change the current admission discharge processes through implementation of a dedicated ADN position. Change

can be the result of identified problems in existing knowledge, skills, technology, management, and systems (Zaccagnini & Pechacek, 2020). Lewin's Change Model is the theoretical basis for facilitation of positive changes pertaining to current admission and discharge processes at an acute care hospital in Southern Nevada. Utilization of Lewin's Change Model will help create awareness for the potential need to improve patient flow performance through implementation of a dedicated ADN position. If the results of this paper suggest a need for the ADN position, the Lewin's Change Model can also guide implementation of this new position and sustain positive changes to the admission and discharge process. Lewin's Change Model recognizes that change occurs when *driving forces* outnumber *restraining forces* over a series of three steps (Zaccagnini & Pechacek, 2020):

- Unfreezing: Assessment of need for change and preparation to move from the status quo to incorporation of new, improved, evidence-based practice
- Changing: Implementation of change. Strengthening of driving forces that promote change while minimizing restraining forces that are barriers to change. If driving forces outnumber restraining forces, then stakeholders will be motivated to adopt proposed changes.
- Refreezing: Changes need to be sustained or allowed to "refreeze" thus becoming the new status quo

This DNP project focuses on the unfreezing and moving stages of Lewin's Change Model in that it will determine if there is a need for the ADN role, promote a vision for process improvement of admissions and discharge practices, and garner leadership buy-in for the ADN role. In the context of the changing stage of Lewin's Change Model, the nurse survey results and patient performance review may serve as driving forces for implementation of the ADN role.

Another important driving force for change is the previous literature review on the ADN role demonstrating its effectiveness in improving nurse satisfaction, workload, patient outcomes, and hospital flow performance. Presentation of these findings will aid hospital leadership with making an informed decision regarding implementation of the ADN position. Garnering leadership buy-in is a critical driving force for implementation of the ADN role. During the changing stage, identification and removal of restraining forces will occur to facilitate successful implementation of the ADN role. Based on the literature review, some projected restraining forces or project barriers are lack of budget, poor leadership buy-in, and ADN role confusion.

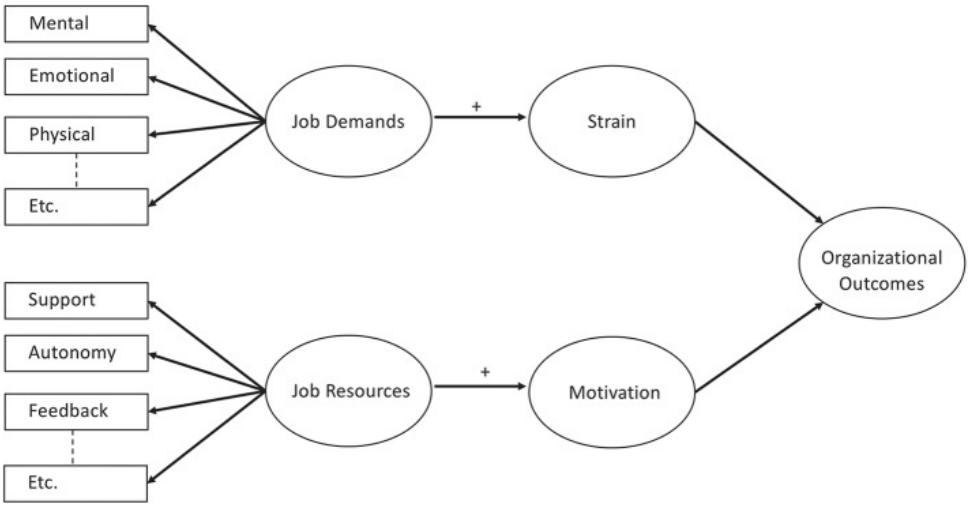
The Job Demands-Resources (JD-R) theory suggests that occupational stress is the result of work demands outweighing work resources (Fitzpatrick & McCarthy, 2014; Demerouti et al., 2001). According to Jourdain & Chênevert (2010), the JD–R theory addresses occupational stress and burnout through individual, interpersonal, and organizational perspectives. Furthermore, these perspectives highlight environmental factors that influence development of occupational stress such as employees' perceptions, job features, teamwork, supervisory and organizational practices (Jourdain & Chênevert, 2010). Job demands are physical, psychological, social, or organizational aspects of the job that require sustained physical, cognitive, or emotional efforts which can impose physiological and/or psychological costs (Fitzpatrick & McCarthy, 2014; Demerouti et al., 2001). In contrast, job resources can be physical, psychological, social, or organizational aspects of the job that reduce job demands, help achieve work goals, and potentially stimulate personal growth, learning, and development (Fitzpatrick & McCarthy, 2014; Demerouti et al., 2001).

The JD-R theory postulates that job demands and resources influence the strain process and motivational process (Broetje et al., 2020). In the strain process, job demands (e.g., work

pressure, time constraints, heavy workload, low staffing, high patient acuity etc.) exhaust nurses' mental and physical resources leading to negative nursing outcomes such as emotional strain, physical exhaustion, depersonalization, and leave from the profession (Van der Heijden et al., 2019; Broetje et al., 2020). In the motivational process, job resources enhance growth, learning, development, job performance, and achievement of work goals (Van der Heijden et al., 2019; Broetje et al., 2020). Figure 1 depicts the JD-R theory.

Figure 1

Job Demands-Resource (JD-R) Theory



Note. From "The key job demands and resources of nursing staff: An integrative review of reviews" by Broetje et al., 2020, *Frontiers in Psychology, 11*(84), p. 3. https://doi.org/10.3389/fpsyg.2020.00084

In the context of the JD-R theory, the ADN / ARN / DRN roles serve as a valuable resource for primary nurses to overcome heavy work demands associated with patient turnover. As discussed in the literature review above, these roles have been shown to reduce workload, enhance teamwork, and promote nursing staff satisfaction. The ADN, ARN, and DRN roles can

serve as a useful resource for primary nurses subjected to stressful work conditions. Furthermore, this role will help match nursing care capacity to work demands associated with patient turnover and help achieve hospital-wide patient flow optimization.

Chapter IV: Methodology

This chapter presents the methods and procedures of this project, the purpose of which was to perform a needs assessment of the implementation of a dedicated ADN position. Additionally, this chapter discusses the design, setting, population, sample, procedures, measurement instrument and strategy, cost, barriers, and ethics of the project.

The admissions and discharge nurse needs assessment occurred at a 300-bed, teaching hospital in Southern Nevada. The needs assessment consisted of two components. First, an assessment of medical-surgical nursing perception of the admission and discharge process was performed to determine if there is dissatisfaction pertaining to clinical transition periods. Second, a retrospective chart review was performed to identify patient flow insufficiencies. If results reveal negative nursing perception of admission and discharge processes and identification of suboptimal patient flow performance, then this would support the need to implement the ADN role.

Assessment of Nursing Perception of Admissions and Discharges

The nursing questionnaire was administered to 3 Tower (3T) and 4 Tower (4T) medical-surgical nurses. The most common diagnoses for both floors include cerebral vascular accident, chest pain, congestive heart failure, abdominal pain, atrial fibrillation, urinary tract infections, pneumonia, and chronic obstructive pulmonary disease. Both medical surgical units have 52 beds each and the average nurse-patient ratio is 1 to 6 on most days. There are about 24 dayshift nurses working on 3 Tower and 22 dayshift nurses working on 4 Tower.

To evaluate the need for a dedicated admission and discharge nurse, there needs to be an assessment of nurse satisfaction and perception of workload related to current admission and

discharge practices. A survey on nurse perception of admission and discharge practices was developed by the DNP student with the input of nursing unit managers and project committee members. The online survey was created using Qualtrics. The survey features an 11-item questionnaire using the Likert scale, 6 multiple choice questions, and 2 open-ended questions. A few questions were adopted from the validated Nursing Workplace Satisfaction Questionnaire (NWSQ; Fairbrother et al., 2009) in addition to the Nurses' Occupational Stressor Scale tool (NOSS; Chen et al., 2020) to evaluate nursing perception of the admission and discharge process. The project committee chair and members evaluated the survey for its content validity. The nurse satisfaction survey aimed to provide insight on nursing staff perception of current admissions and discharge processes, barriers to safe and efficient patient turnover, and ideas for improvement. See Appendix A for the survey.

After obtaining Institutional Review Board approval in April 2023 and unit managers' approval, an informational paper handout containing a brief description of the nursing survey and quick-response (QR) link to the online survey was distributed during morning huddle (see Appendix B for survey flier). The handout was also posted in highly frequented areas such as nursing stations, break rooms, and bathrooms to promote survey participation. The survey sample population included all dayshift medical-surgical nurses of both 3 Tower and 4 Tower (n = 46). Nightshift nurses were excluded because the rate of patient turnover generally occurs less frequently during the nighttime. Convenience sampling was used to recruit survey respondents. Nurses who have already completed the survey on a previous shift were requested to not complete the survey again. Registered nurses from both medical-surgical units were asked to complete the survey anonymously to promote unbiased feedback. Completion of the survey indicates the subjects' consent to participate. Respondents were free to withdraw from the study

at any time by simply not completing the survey. No identifying personal information was collected. The survey was estimated to take less than ten minutes to complete. At the end of the online survey, participants were given an option to click on a separate link to complete a short online form that entered them into a raffle to win one $25 Amazon gift card. One winner was randomly selected from each unit.

Basic descriptive statistics (e.g., percentages) were used to analyze nursing survey responses. A qualitative analysis of open-ended responses was performed to identify themes and frequencies of responses.

Assessment of Patient Flow Performance

Identifying opportunities for improvement in patient flow performance will determine if implementation of the ADN position is needed to help optimize patient turnover without increasing nurse workload. The measurement strategy is based on patient flow metrics that were improved through ARN / DRN / ADN role implementation (see Table 1 for cited peer-reviewed literature). Patient flow data, from May 2022 to May 2023, were collected for 3 Tower, 4 Tower, and the emergency department (ED). Once all patient flow measures were collected, the data was evaluated to see if facility performance met facility goals (see Table 1).

A total of nine measures were evaluated: time on diversion, percentage of patients that left without being seen, ED boarding time, ED length of stay (LOS), average admission time, medical-surgical unit length of stay (LOS), discharge turnaround time, percentage of early discharges, and discharge HCAHPS Scores. Table 1 outlines the definition, collection methodology, and the facility's goals for each specific measure. Lastly, Table 1 references peer-reviewed literature that demonstrated efficacy of ARN / DRN / ADN role implementation in

optimization of patient flow. Patient flow measures were extracted from the facility's electronic health record system via the following steps:

1. Unit nurse managers, quality improvement, and computer technical support staff assisted the DNP student with gaining access to, navigating, and utilizing the patient flow application within the facility's electronic health record system.
2. The DNP student recorded the specific variables listed in Table 1 and transferred the data to a Microsoft Excel document with no patient identifiers located in a secured UNLV google drive.
3. Within the Excel document the DNP student calculated the respective means or percentages of the specific variables listed in Table 1 and analyzed patient flow performance. See the third column of Table 1 for specific data collection methodology of each variable.

Threats and Barriers

There were some barriers to the implementation of this project. Initially, leadership buy-in was a potential barrier to project implementation. Ongoing discussion with the facility's nursing leadership facilitated buy-in for the project. The nursing leadership team was interested in the findings of this DNP Project. Another barrier to the project was the DNP student investigator's inexperience with navigating the facility's electronic health record to obtain patient flow data. With the help of other hospital staff listed in the stakeholders section, the DNP student became familiarized with the patient flow application within the electronic record system, and was able to obtain the variables listed in Table 1 to assess patient flow performance.

Project Budget

There were minimal costs associated with implementation of this project. The nursing survey incurred no cost as it was created and administered online through Qualtrics. Informational paper handouts (x50) with the QR link to the nursing survey cost $10 to print. There were two $25 Amazon gift cards available as a participation raffle prize. Assessment of patient flow data costs nothing to perform as most of the data is already collected by the facility's electronic record. Qualtrics and Microsoft Excel were available for free through UNLV. Total costs of this project were $60.

Ethics and IRB Approval

No ethical issues, involving human subjects, were identified in this DNP project. After successful completion of the DNP Project Proposal, an application was submitted to UNLV's Biomedical Institutional Review Board (IRB) for review in April 2023. IRB approval was obtained in April 2023 (see Appendix C).

Chapter V: Results and Discussion

Survey Administration and Results

The nursing survey was open from July 1 – August 31, 2023. For the month of July, the DNP student attempted to recruit nurses at the start of dayshift during morning huddle twice a week. For the month of August, the DNP student recruited nurses twice a week toward the end of the shift (1500-1700) when they were less busy compared to the beginning of the shift. There were 25 recorded responses. A total of 22 out of 25 dayshift medical-surgical nurses completed the survey in its entirety. There were 3 incomplete surveys; the responses were recorded up to the point of dropout. The results of the nursing survey suggested nurse dissatisfaction with the admission and discharge processes.

All nurses from 3 Tower (n = 11) reported a typical nurse-to-patient ratio of 1:6. While 43% of 4 Tower nurses (n = 6) reported a ratio of 1:6 and 57% (n = 8) reported a ratio of 1:7. A majority of 3 Tower (55%) and 4 Tower nurses (77%) reported 1-2 admissions per day shift. A majority of 3 Tower (64%) and 4 Tower nurses (54%) nurses from reported that admissions required 30-60 minutes to complete. The top four reasons reported for problems with admissions for both units were heavy workload (n = 21), competing work priorities (n = 21), too many documentation requirements (n = 13), and lack of time (n = 15). Other challenges of new admissions reported were lack of handoff report from ED RNs and higher acuity patients requiring immediate nursing intervention. The majority of 3 Tower (54.55%) and 4 Tower nurses (58.33%) reported 1-2 discharges per day shift. The top problems with discharges for both units were difficulty meeting facility discharge goals (e.g., discharge turnaround time < 2 hours; n = 22), competing work priorities (n = 18), heavy workload (n = 17), and sudden / unexpected

discharge orders (n =18). Other discharge challenges reported were lack of patient transportation, patient discharge unreadiness, and unclear discharge medication reconciliation.

Only 17% (n = 4) of all nurse respondents agreed with the statement: “I am satisfied with current admission and discharge practices and policies at my facility.” While 43% (n = 10) of all nurse respondents reported disagreement and 39% (n = 9) felt neutral about this statement. Most nurses (69%) reported disagreement with the statement: “I have sufficient time and/or resources to perform admissions and discharges efficiently”. Nurses (91%; n = 21) overwhelmingly reported that admissions and discharges significantly increase their workload and contribute to workflow disruptions. Approximately 87% (n = 20) of the nurse respondents felt that frequent admissions and discharges limit their ability to perform other priority nursing interventions and care for existing patients. Most of the nurse respondents (73%, n = 16) agreed to feeling overwhelmed with admitting and discharging patients in a timely manner. Furthermore, 69% (n = 15) of the nurse respondents do not feel like they have enough time for comprehensive discharge planning and education. More than half of the nurse respondents (63%; n = 14) agreed that they can ask other nurses and colleagues for help when they feel overwhelmed with admissions and discharges. Only 13% (n = 3) of the nurses agreed that physicians communicated early about plans for discharge before discharge orders are placed. Additionally, only 40% (n = 9) of the nurses reported that they were informed during nursing shift handoff report about a possible discharge before the discharge order was placed.

Almost all nurse respondents (n = 21; 95%) are in support of the creation of a dedicated admission and discharge nurse position. The most common open-ended responses in support of the ADN position are to help reduce workload, prevent workflow disruptions, reduce nursing stress, enhance teamwork, and free up more time for the primary nurse to address competing

clinical priorities. When asked about suggestions for improvement to the admission and discharge process, the responses of nurses were varied. Most suggestions for improvement pertained to the discharge process only. Some nurses reiterated their support for creation of a dedicated ADN position. While a few nurses preferred a dedicated discharge nurse as opposed to an admission nurse and/or ADN. In summary, nurses stated a need to improve physician communication with patients prior to discharge, enhance interdisciplinary communication, facilitate patient discharge readiness, minimize redundant discharge paperwork, secure discharge clothes for the homeless, and extend discharge turnaround time expectations to greater than two hours to prevent nursing stress.

Patient Flow Data Collection and Results

Collection of patient flow data from May 2022 – May 2023 was originally planned for August 2023. Due to delays in obtaining facility approval and barriers with accessing the electronic health record application, data collection was performed during September – October 2023 for the proposed duration. In summary, the patient flow review revealed opportunities for improvement in ED boarding hours, rate of early discharges, discharge turnaround time (DTAT), unit length of stay (LOS), and discharge HCAHPS scores as these metrics did not meet facility goal (see Table 1, Table 2, and Table 3 for patient flow results). The review of patient flow performance suggests that a dedicated admission and discharge nurse may help with optimization of patient flow for 3 Tower, 4 Tower, and the ED.

A total of 8 out of the 9 patient flow measures were fully reviewed. These measures were ED LOS, ED LWBS, ED ambulance diversion hours, ED boarding hours, 3 Tower / 4 Tower LOS, 3 Tower / 4 Tower rate of early discharges, 3 Tower / 4 Tower DTAT, 3 Tower / 4 Tower HCAHPS scores (discharge domain only). Admission times were not assessed for 3 Tower due

to missing census report sheets that contained the exact time the patient arrived onto unit. Multiple attempts were made to retrieve 3 Tower census report sheets from the medical record storage facility without success. Furthermore, the DNP student investigator did not have access to 4 Tower census report sheets from May – November 2022. Therefore, only the admission times of 4 Tower from December 2022 – May 2023 were reviewed.

For May 2022 – May 2023, 3 and 4 Tower did not reach facility goals for unit LOS (< 5.1 days), discharge turnaround times (< 120), rate of early discharges before 1100 (25%), rate of early discharges before 1400 (50%), and have poor discharge HCAHPS scores. There is no official facility goal for admission documentation completion. However, it is helpful to be aware of duration of admission times (i.e., exact time patients arrive onto unit to the time nurses complete admission history documentation) in order to gauge time requirements of admission work. For dayshift nurses on 4T, admission documentation takes about 59 minutes to complete from the time the patient arrives onto the unit. See Table 2 for monthly 3 Tower and 4 Tower patient flow results.

For May 2022 – May 2023, the average ED patient LWBS rate was 0.39% which is within the facility goal of less than 1%. Ambulance diversion goals were not met as the hospital underwent diversion almost every single month except in May 2022 resulting in an average of 13.55 diverted hours between May 2022 – May 2023. The ED boarding time was 538.92 minutes which is very far from the target of less than 195 minutes. There is no specific facility goal for time on hospital overall ED LOS as the goal is variable depending on patient acuity and admission status. However, it is important to review these measures to establish a baseline for ED patient flow efficiency. Higher ED LOS could indicate patient flow insufficiency and ED overcrowding. See Table 3 for monthly ED patient flow results.

Discussion of Results

The results of the nurse survey and patient flow data review support the need to implement a dedicated ADN position. Only 17% of nurse respondents reported satisfaction with the current admission and discharge process. Nurses reported that admissions and discharges significantly increased their perception of workload and workflow disruptions. These perspectives are consistent with existing literature on patient turnover (Vanfosson et al., 2017; Jennings et al., 2022). An overwhelming number of nurse respondents were in support of creation of a dedicated ADN position. They believe that implementation of a dedicated ADN position can help reduce their workload, prevent workflow disruptions, mitigate nursing stress, enhance teamwork, and free up more time for the primary nurse to address competing clinical priorities. These beliefs have been supported by previous studies that examined the effects of the ADN and related role implementation (Spiva & Johnson, 2012; Giangiulio et al., 2008; Lane et al., 2009; Blankenship & Winslow, 2003; Norton-Westwood et al., 2010; Siehoff et al., 2009; Kirkbride et al., 2012; Homola & Fuller, 2008; Hlipala et al., 2005; Ciaramella et al., 2014; Logsdon & Little, 2021, Monfort, 2021).

Improving nurse perception of workload, work resources, and teamwork during periods of high patient turnover is crucial to the provision of high-quality care and the prevention of negative nurse outcomes. The ADN position can support the nursing staff by increasing nursing care capacity, enhancing teamwork, facilitating work efficiency, reducing perceived workload, and preventing workflow disruptions which have been reported to be major concerns for our medical-surgical nurses. Facilities need to invest in efforts, such as the ADN role implementation, that protect nurses from work overload and stress. Failure to do so may

culminate in nursing burnout and intent to resign which will have negative financial implications for the facility.

The review of patient flow measures identified several areas needing improvement which include: 3 Tower / 4 Tower LOS, discharge turnaround times, rate of early discharges before 1100, rate of early discharges before 1400, discharge HCAHPS scores, ambulance diversion hours, and ED boarding time. The ADN role implementation has been shown to improve these measures of patient flow (Haq et al., 2018; Kirkbride et al., 2012; Logsdon & Little, 2020; Monfort, 2021; Patterson et al., 2007; Cyrus et al., 2022; Petitgout et al., 2015; Joyce et al., 2005). In the context of the facility's patient flow performance, the ADN can improve discharge efficiency by improving 3 Tower and 4 Tower rate of early discharge and DTAT. Focusing on improving the rate of early discharge and discharge turnaround time might be the most practical goal since this may also improve other patient flow measures such as ED boarding time (Haq et al., 2018) and unit LOS (Ciaramella et al., 2014). A root cause analysis was completed to identify factors that contributed to delayed discharges times at our facility (see Figure 2). The ADN position can help address nurse, patient, and process-related factors currently contributing delayed discharges and thus suboptimal patient flow. Specifically, the ADN can help bridge gaps in interdisciplinary communication regarding discharge, secure patient discharge clothes and transportation, improve patient knowledge deficits and discharge readiness, schedule follow-up appointments, complete discharge paperwork and documentation, and support the primary nurse so they can address other clinical priorities. Having a dedicated ADN will also standardize patient discharge education potentially improving discharge HCAHPS scores (Ciaramella et al., 2014).

As previously stated, this DNP project focuses on the unfreezing and changing stages of Lewin's Change Model. In the context of the unfreezing stage, there is sufficient data that supports the need to implement the ADN role. Moving forward, the Lewin's Change Model will be used to promote a vision for improvement of admissions and discharge practices and garner leadership buy-in for the ADN role. The nurse survey results, demonstrated suboptimal patient flow performance, and the previous literature review serve as the driving force for implementation of the ADN role. Gaining leadership buy-in is crucial to reaching the changing stage and a critical driving force for implementation of the ADN role. Presentation of these findings will aid hospital leadership with making an informed and evidence-based decision regarding implementation of the ADN position at our facility.

In summary, the admission and discharge processes are transition periods in patient care that deserve attention because patient turnover significantly increases nurse workload, workflow disruptions, risk for communication failures, and possibility for missed care or care rationing (Park et al., 2016; Vanfosson et al., 2017; Jennings et al., 2022). Patient admission and discharge are highly complex nursing activities that require significant cognitive demand often in the context of competing clinical priorities and limited time and work resources (Redley et al., 2022). The creation of a dedicated ADN position can help organizations optimize patient flow while ensuring nurses have adequate resources to efficiently achieve this priority. It must be acknowledged that the ADN position is not a one-size-fit-all solution to all patient flow insufficiencies. However, it has the potential to relieve patient flow bottlenecks while preventing nurse work overload due to increased patient turnover. The literature review supports the potential of the ADN position in helping organizations achieve the quadruple aims of healthcare which is to improve nurse satisfaction, patient care, health outcomes, and healthcare costs.

Dissemination of Results

Results of this DNP project will be presented to the facility's nursing leadership in Spring 2024. The DNP student may expand the needs assessment to include a cost-benefit analysis of ADN implementation and review patient flow performance of all medical-surgical units as well as the intermediate care unit to see if these departments would also benefit from the ADN role implementation. Through ongoing discussion of the project's results and potential benefits of the ADN position, the leadership team will ideally consider ADN role implementation in the near future. If our facility successfully implements the ADN position, then other hospitals within the area may be encouraged to adopt this position depending on their patient flow performance. The DNP student will present the project at the Western Institute of Nursing conference in April 2024. This DNP project can serve as a needs assessment template for other nurse leaders contemplating implementation of a dedicated admission nurse, discharge nurse, or ADN position. Nurses can determine if there is an urgent need to implement the ADN role at their organization based on the admission and discharge survey and specific patient flow measures identified in this project.

Tables and Figures

Table 1

Patient Flow Metrics and Overall Unit Performance

Emergency Department (ED)					
Measures	**Definition**	**Data Collection Methodology**	**ADN Literature**	**Facility Goals**	**Unit Performance (May 2022-2023)**
Time on ambu-lance diversion	The number of hours per month the ED is closed to ambulance admissions	- Summarized monthly by facility's electronic record system	- Joyce et al., 2005: ADN position helped reduce diversion hours; however, specific amount was undisclosed.	0	13.55 hours
Percent of patients that left without being seen (LWBS)	Percent of the total number of patients that check in at the emergency department triage desk that leave before being seen by a physician or being treated.	- Summarized monthly by facility's electronic record system - Numerator: # of patients that check in at triage desk in the emergency department but leave before being seen by a physician or being treated. - Denominator: Total patient volume in the emergency department	- Patterson et al., 2007: Admission nurse reduced number of patients who left without being seen from 281 (January – March 2005) to 190 (January 2006) which represents a 38% improvement.	Less than 1%	0.39%
ED boarding time	Time interval from when admission orders are placed to the time patient is transferred into inpatient room. This is considered the turnaround time for admitted / observation patients from the ED.	- Summarized monthly by facility's electronic record system - Median time in minutes from time of admission orders to time of transfer to an inpatient bed	- Patterson et al., 2007: Turnover time of admitted patients boarded in emergency department decreased from mean of 350 minutes to 240 minutes ($p = < 0.005$; CI: 89.08- 132.12). - Haq et al., 2018: ADN helped reduced 15 minutes in ED boarding time from 2:21 hours to 2:05 hours ($p < 0.001$). This is a 11% improvement.	Less than 195 minutes	539 minutes

ED length of stay (LOS)	Time interval between a patient's arrival to the ED to the time patient physically leaves the ED.	- Summarized monthly by facility's electronic record system - Median time in minutes from time of arrival to the ED to time of ED departure	- Kirkbride et al., 2012: admission nurse decreased ED LOS from average of 439 to 414 minutes which is improvement of 21%.	Variable LOS goal depends on case mix index	255 minutes
3 Tower (3T) and 4 Tower (4T)					
Measures	**Definition**	**Data Collection Methodology**	**ADN Literature**	**Facility Goals**	**Unit Performance (May 2022-2023)**
Average admission time (monthly)	The time in minutes from patient arrival onto unit to the time it takes to complete the 'Adult Admission History' form documentation .	- Random chart audit of 15 patient admissions per month, per unit. Total of 180 chart audits from each unit. - Only dayshift admissions were reviewed - Numerator: Total number of minutes of admission time per month - Denominator: Total number of charts audited per month (15)	- Homola & Fuller, 2008: Time it takes to admit a patient has been reduced from an estimation of 90 minutes to less than 30 minutes in most (75%) new admissions. - Norton-Westwood et al., 2010: The admission nurse improved the efficiency of admission time by > 150%. The mean admission time for ARN was 30 min vs. 2 h for the unit staff. - Spiva & Johnson, 2012: The mean time to complete an admission decreased to 57 minutes from 1 hour and 30 minutes.	None	3 Tower = N/A 4 Tower = 59.2 minutes
Unit length of stay (LOS)	Total amount of patient days spent on the unit	- Summarized monthly by facility's electronic record system - Median time in hours of entire patient stay	- Logsdon & Little, 2020: Decreased median LOS from 97.16 hours to 85.24 hours on a pediatric cardiac care unit	Less than 5.1 days	3 Tower = 9.3 days 4 Tower = 8.2 days

Discharge turnaround time (TAT)	Interval in time from when discharge orders are placed to time patient leaves the unit	- Summarized monthly by facility's electronic record system - Median time in minutes from time of discharge orders placement to time patient departs unit	- Monfort, 2021: Decreased discharge turnaround time from an average of 180-240 minutes to average of 120 minutes. - Cyrus et al., 2022: Reduced median discharge time by 48 minutes from 1505 to 1417.	Less than 120 minutes	3 Tower = 144.9 minutes 4 Tower = 154.1 minutes
Rate of early discharge	Early discharges differ depending on facility. Generally, discharges are considered as 'early' if they are performed before 1400	- Summarized monthly by facility's electronic health record system - Average percentage of discharges that occur before 1100 and 1400 - Numerator: Number of discharges completed before 1100 and 1400. - Denominator: Total number home routine discharges completed	- Haq et al., 2018: Improvement in early (before 2 PM) hospital discharges from 36% to 41% ($p < 0.01$) - Logsdon & Little, 2020: Increased % of patient discharged before noon from 31.68% to 44.39% - Cyrus et al., 2022: Increased % of patients discharges before 2PM from 34.4% to 45.9% ($p < 0.01$)	- 25% by 1100 - 50% by 1400	3 Tower = 13.4% by 1100; 42.3% by 1400 4 Tower = 12.2% by 1100; 42.9% by 1400
HCAHPS scores - discharge domain	- Nationally collected survey that assesses patient satisfaction regarding various aspects of healthcare quality	- Record 3T and 4T monthly HCAHPS scores and rank (discharge domain only) - Obtained from Press Ganey	- Ciaramella et al., (2014): HCAHPS discharge scores increased from 76th percentile pre-intervention to 95th post-intervention	> 50th percentile	3 Tower = Not met 4 Tower = Not met

Table 2

3 Tower (3T) and 4 Tower (4T) Monthly Patient Flow Performance

Month, Year	**4T Admission Time** (avg. mins)	**3T LOS** (days)	**4T LOS** (days)	**3T DTAT** (avg. mins)	**4T DTAT** (avg. mins)	**3T Early Discharge** (before 1100)	**3T Early Discharge** (before 1400)	**4T Early Discharge** (before 1100)	**4T Early Discharge** (before 1400)	**3T HCAHPS** (discharge rank)	**4T HCAHPS** (discharge rank)
May-22	N/A	7.1	6.3	163.4	174.8	12.8%	43.3%	12.9%	38.3%	94th	1st
Jun-22	N/A	13.4	8.5	156.2	191	8.3%	35.8%	12.0%	40.0%	99th	1st
Jul-22	N/A	7.9	7.2	147.2	179.9	15.7%	45.5%	13.6%	45.7%	1st	1st
Aug-22	N/A	8.4	7.6	139.3	165	16.4%	49.1%	13.7%	46.0%	1st	1st
Sep-22	N/A	7.9	8.5	166.3	160.2	17.3%	51.3%	16.1%	44.6%	1st	39th
Oct-22	N/A	9.3	8.8	145.2	136.3	15.7%	38.9%	17.6%	42.1%	30th	1st
Nov-22	N/A	6.2	7.9	124.5	137.2	16.7%	44.4%	8.9%	38.1%	1st	None
Dec-22	68.3	7.8	8	160.4	141.2	18.2%	37.5%	12.8%	41.9%	3rd	64th
Jan-23	57	13.5	10.5	134.7	140. 8	13.9%	48.8%	15.4%	43.6%	3rd	1st
Feb-23	42.5	11.2	9.5	153.4	163.8	8.4%	37.9%	10.8%	50.0%	1st	6th
Mar-23	58.6	9.8	6.5	110.8	123.8	8.8%	43.2%	5.9%	42.7%	1st	99th
Apr-23	75.5	9.8	9.5	147.8	145.8	13.8%	40.2%	10.0%	32.2%	1st	1st
May-23	53.2	8.1	8.1	135.4	129.7	7.6%	33.6%	8.9%	52.7%	99th	1st
Average	59.2	9.3	8.2	144.9	154.1	13.4%	42.3%	12.2%	42.9%	Not met consistently	Not met consistently
Facility Goal	N/A	< 5.1	< 5.1	< 120	< 120	25%	50%	25%	50%	> 50th percentile	> 50th percentile

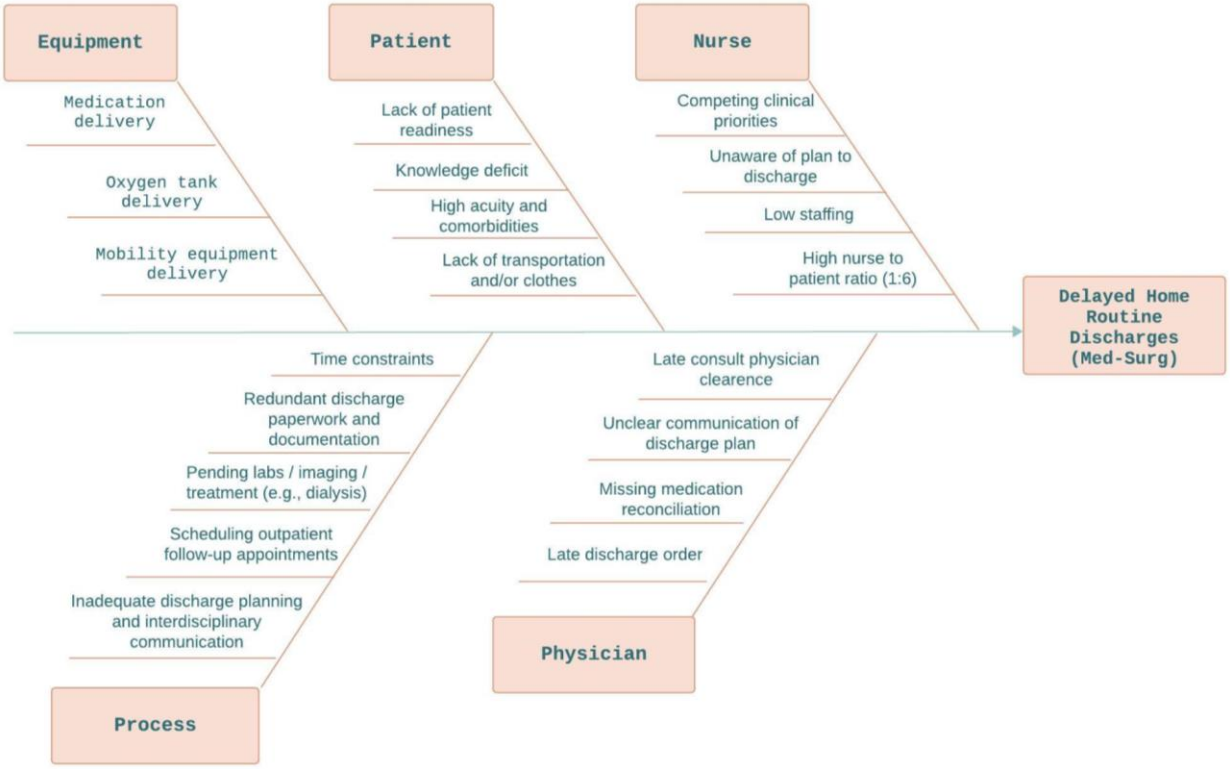
Table 3

Emergency Department (ED) Patient Flow Measures

Month, Year	**Time on Hospital Diversion** (hours)	**% ED Patient LWBS**	**ED LOS** (median mins)	**ED Boarding Time** (median mins)
May-22	0.0	0.21%	239	236
Jun-22	20.7	0.27%	255	701
Jul-22	20.8	0.36%	252	571
Aug-22	6.0	0.26%	239	353
Sep-22	4.0	0.35%	235	282
Oct-22	1.9	0.35%	242	311
Nov-22	27.1	0.57%	259	503
Dec-22	27.3	0.51%	258	663
Jan-23	13.8	0.29%	265	780
Feb-23	13.0	0.58%	271	804
Mar-23	24.0	0.41%	264	581
Apr-23	15.8	0.43%	271	768
May-23	1.7	0.43%	265	453
Average	13.55	0.39%	255	539
Facility Goal	0	< 1%	Variable	< 195

Figure 2

Fishbone Diagram Delayed Home Routine Discharges



Appendix A: Admission and Discharge Survey

The purpose of this survey is to assess nursing perception of the admission and discharge processes. Your anonymous feedback will be used to better understand nursing experience and potentially enhance current admission and discharge practices at Valley Hospital.

The survey will only take about 5-10 minutes to complete.

Please select the option that best reflects your experience.

1. What is the typical nurse to patient ratio on your unit on most days?
    a. 1:5
    b. 1:6
    c. 1:7
    d. 1:8
2. About how many patient admissions do you perform on a typical day?
    a. 0-1
    b. 1-2
    c. 2-3
    d. 3-4
3. About how long does it take for you to complete an entire admission? This includes orientating patient to the room and unit safety policies, performing initial assessments, completing admission documentation, medication reconciliation, and discussion of patient's plan of care.
    a. 30-60 minutes
    b. 60-90 minutes
    c. 90-120 minutes
    d. More than 120 minutes
4. What are specific problems you often encounter with performing admissions? Please select all that apply.
    a. Heavy workload or patient assignments
    b. Too many other priorities or competing nursing tasks
    c. Lack of time
    d. Excessive STAT or new orders
    e. Lack of unit teamwork or help from other nurses / nurse assistants
    f. Too many documentation requirements
    g. Other (please briefly explain)
5. About how many discharges do you perform on a typical day?
    a. 0-1
    b. 1-2
    c. 2-3
    d. 3-4

6. What are specific problems you often encounter with performing home routine discharges? Please select all that apply.
    a. Difficulty meeting discharge expectations or efficiency goals (e.g., discharge within 2 hours after discharge orders placement or discharge before 2PM)
    b. Heavy workload or patient assignments
    c. Lack of time for comprehensive discharge education or planning
    d. Lack of unit teamwork or support from other healthcare team members
    e. Sudden or unexpected discharge orders
    f. Lack of medical equipment (e.g., home oxygen tanks)
    g. Pending medication delivery from contracted pharmacy
    h. Lack of discharge transportation
    i. Too many documentation requirements
    j. Other (please briefly explain)

Please select the option that best reflects your opinion.

7. I am satisfied with the current admission and discharge practices and policies.

1. strongly disagree	2. disagree	3. neutral	4. agree	5. strongly agree

8. I have sufficient time and/or resources to perform admissions and discharges efficiently.

1. strongly disagree	2. disagree	3. neutral	4. agree	5. strongly agree

9. Admissions and discharges significantly increase my workload.

1. strongly disagree	2. disagree	3. neutral	4. agree	5. strongly agree

10. Admissions and discharges significantly contribute to workflow disruptions. In other words, you often abruptly stop what you are currently doing and plan on doing to direct time and work effort towards arrival of new admissions and new pending discharges.

1. strongly disagree	2. disagree	3. neutral	4. agree	5. strongly agree

11. Frequent admissions and discharges limit my ability to perform other priority tasks other priority tasks like patient re-assessments, hourly rounding, education, medication administration, patient hygiene, feeding, charting, and interdisciplinary communication.

1. strongly disagree	2. disagree	3. neutral	4. agree	5. strongly agree

12. It is difficult to care for current patients when there is a new admission or pending discharge to perform.

1. strongly disagree	2. disagree	3. neutral	4. agree	5. strongly agree

13. I feel overwhelmed with admitting new patients and discharging patients in a timely manner that is expected of me (e.g., within 2 hours of discharge orders)

1. strongly disagree	2. disagree	3. neutral	4. agree	5. strongly agree

14. I do not have enough time to perform comprehensive discharge planning and education for patients and their families.

1. strongly disagree	2. disagree	3. neutral	4. agree	5. strongly agree

15. I can ask other nurses and coworkers for help when I am overwhelmed with admissions and/or discharges.

1. strongly disagree	2. disagree	3. neutral	4. agree	5. strongly agree

16. Physicians communicate when they expect to discharge the patient at least 1 hour before discharge orders are placed so that I can prepare for discharge needs and education.

1. strongly disagree	2. disagree	3. neutral	4. agree	5. strongly agree

17. I was informed during nursing shift handoff report, that the patient might get discharged on the actual day the discharge order was placed. Therefore, I was able to anticipate and better prepare for the possible discharge.

1. strongly disagree	2. disagree	3. neutral	4. agree	5. strongly agree

Please answer the following questions:

18. Would you be in support of the creation of a dedicated admission and discharge nurse position? Why or why not?

    This new nurse resource position will help bedside nurses with completion of admission and discharge duties. Specifically, they might help complete admission assessment documentation, perform STAT admission orders, discharge education, arrange transportation, transfer discharged patients, remove IVs, etc.

    a. Yes or No? _____
    b. Why?

19. What can be improved about the admission and discharge process at your unit or hospital? What are your suggestions for improvement?

    Please answer N/A if there are no suggestions at this time.

End of survey. Thank you for time and feedback.

Appendix B: Admission and Discharge Survey Handout

Admission & Discharge Survey

For any questions, please contact:

Connie Ngo - DNP Student
ngoc1@unlv.nevada.edu
714-657-4606

Dr. Dieu-My Tran PhD
dieu-my.tran@unlv.edu

UNLV
UNIVERSITY OF NEVADA LAS VEGAS

Your Feedback is Needed!

Please share your perception of current admission and discharge practices on your unit.

Your **anonymous** feedback can help guide improvement initiatives at our facility.

Online survey takes less than 10 minutes to complete.

$25 Amazon gift card raffle prize (per unit)

Eligibility: (a) Med-Surg RN, (b) works **dayshift** 0700 - 1900

Please scan QR code:

Appendix C: Institutional Review Board Exemption Letter

ORI-HS, Non-Committee Review

Notice of Excluded Activity

DATE: April 27, 2023

TO: Dieu-My Tran
FROM: Office of Research Integrity - Human Subjects

PROTOCOL TITLE: UNLV-2023-210 Needs Assessment for Implementation of a Dedicated Admission and Discharge Nurse
SUBMISSION TYPE: Initial

ACTION: No Human Subjects Research
REVIEW DATE: April 27, 2023
REVIEW TYPE: ADMINISTRATIVE REVIEW

Thank you for your submission of materials for this proposal. This memorandum is notification that the proposal referenced above has been reviewed as indicated in Federal regulatory statutes 45 CFR 46.

The Office of Research Integrity - Human Subjects has determined this request does not meet the definition of 'research with human subjects' according to federal regulations, and there is no further requirement for IRB review.

Any changes to this excluded activity may cause this request to require a different level of review, so please contact our office to discuss any anticipated changes.

If you have questions, please contact the Office of Research Integrity - Human Subjects at IRB@unlv.edu or call 702-895-2794. Please include your project title and project ID in all correspondence.

Office of Research Integrity - Human Subjects
4505 Maryland Parkway . Box 451047 . Las Vegas, Nevada 89154-1047
(702) 895-2794 . IRB@unlv.edu

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Curriculum Vitae

CONNIE NGO BSN, RN

conniengo95@gmail.com

EDUCATION

Doctor of Nursing Practice – Family Nurse Practitioner

University of Nevada Las Vegas September 2019 – May 2024 (Expected)

Bachelor of Science – Nursing

University of Nevada Las Vegas August 2013 – August 2016

- Graduated Cum Laude | Dean's Honors List.
- Undergraduate teaching assistant for Biology 223 and 224 (anatomy & physiology).
- Undergraduate research assistant in the Department of Chemistry and Biochemistry (research on the prevention of *Clostridium difficile* spore germination).

PUBLICATIONS

Phan, J. R., Do, D. M., Truong, M. C., Ngo, C., Phan, J. H., Sharma, S. K., Schilke, A., Mefferd, C. C., Villarama, J. V., Lai, D., Consul, A., Hedlund, B. P., Firestine, S. M., & Abel-Santos, E. (2022). An aniline-substituted bile salt analog protects both mice and hamsters from multiple *Clostridioides difficile* strains. *Antimicrobial Agents and Chemotherapy, 66*(1), e0143521. https://doi.org/10.1128/AAC.01435-21

PRESENTATIONS

Poster Presentation

Western Institute of Nursing Conference | Salt Lake City, UT April 2024

- Ngo, C., Tran, D. T., Thimsen, K., Upadhyay, S. (2024). *Needs Assessment for Implementation of a Dedicated Admission and Discharge Nurse Position.* Research and Information Exchange (RIE) Poster Session.

LICENSURES & CERTIFICATIONS

Registered Nurse
Nevada Board of Nursing
License #: RN90718
Expire: August 2024

Basic Life Support
American Heart Association
Expire: December 2024

Advanced Cardiovascular Life Support
American Heart Association
Expire: December 2025

PROFESSIONAL EXPERIENCE

Medical Intensive Care Unit (MICU) – Registered Nurse

Valley Hospital and Medical Center | Las Vegas, NV March 2018 – Current

- Care for critically ill patients who may require mechanical ventilation, multiple vasoactive drip titrations, invasive hemodynamic monitoring, continuous renal replacement therapy, external ventricular drain monitoring, chest-tubes, intra-aortic balloon pump therapy, therapeutic hypothermia protocol
- Demonstrate critical thinking, prioritization, time-management, interdisciplinary communication skills in a fast-paced, critical care setting
- Employ evidence-based practices to promote positive patient outcomes and safety
- Empower patients through education of patient rights, disease prevention, plans of treatment, and ongoing wellness
- Precept nursing students and new ICU nurses
- Lead ICU post-conference teaching a variety of critical care concepts (e.g., ICU drugs, arterial blood gases, advance cardiovascular life support, intracranial hypertension, sepsis protocol, pacemakers, mechanical ventilation, hemodynamics)

Medical-Surgical Telemetry Unit – Registered Nurse

Summerlin Hospital and Medical Center | Las Vegas, NV November 2016 – March 2018

- Provide holistic and individualized care for patients with a broad range of conditions, needs, and cultural backgrounds
- Possess exceptional clinical decision-making, prioritization, and time-management skills to address needs of at least six different patients on a daily basis