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Discharge Risk Screening and Interdisciplinary Communication: A Method to Mitigate Discharge Delays

Tammy Linton

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Discharge Risk Screening and Interdisciplinary Communication:

A Method to Mitigate Discharge Delays

by

Tammy Linton

A capstone project submitted to the faculty of
Gardner-Webb University Hunt School of Nursing
in partial fulfillment of the requirements for the degree of
Doctorate of Nursing Practice

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Abstract

Identification of discharge barriers early during the hospital stay is essential to coordinate services post-discharge. Timely discharge of patients when medically safe controls costs, promotes positive health outcomes, and increases quality of care. Discharge planning is a multifaceted interaction that relies heavily on effective communication between all disciplines and the patient. Research suggests interdisciplinary collaboration and effective communication as leading strategies to mitigate discharge delays. The purpose of this study was to examine the impact of interdisciplinary collaboration on discharge planning and length of stay for medical surgical patients. A daily discharge team meeting was implemented as a best practice strategy to identify barriers, discuss recommendations, exchange ideas, and develop a comprehensive discharge plan. The team consisted of nurses, social workers, case managers, physical therapist, occupational therapist, nutritionist, utilization management coordinators, and physicians. Daily interdisciplinary team meetings (IDT) were implemented Monday through Friday at 11:00 a.m. for four medicine teams for four weeks. This evidence-based solution facilitated shared decision making in the discharge process and improved patient satisfaction related to the discharge process. Collaboration among the interdisciplinary team members was assessed post implementation using a modified Nurse-Physician Collaboration tool (Vazirani, Hays, Shapiro, & Cowan, 2005); 92% of the participants surveyed believed the information exchanged during IDT positively impacted patient outcomes. Length of stay was decreased for three of four medical units and avoidable bed days of care reduced for two of the four units. Substantial research has been done to validate interdisciplinary communication as a best practice to improve the discharge process and patient outcomes. This project

accomplished its goal of designing a collaborative model, beginning on patient admission, to ensure efficient and effective discharge planning.

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SECTION I

Introduction

Hospital discharge is recognized as a system-level issue requiring effective collaboration during admission to ensure safety post discharge. Failure to discharge patients when medically stable is a widespread problem impacting the organization's ability to expedite discharge and deliver quality healthcare in an effective and efficient manner (Majeed et al., 2012). Approximately 30% of hospitalized patients experience discharge delays, however many delays are not medical in nature (Ubbink, Tump, Koenders, Kleiterp, & Goslings, 2014). Data suggest patients with more complex social needs have a greater length of stay and require additional resources to coordinate transition to the next level of care. According to Jasinarachchi et al. (2009) patients that remain in the hospital when medically stable are at risk for developing medical complications such as urinary tract infections, respiratory tract or gastrointestinal tract infections, and decreased mobility.

The decision to discharge is a complex process that can be influenced by various medical or non-medical factors. Delays in the discharge process can impact the patient's emotional state and limit autonomy, sometimes leading to disengagement from discharge planning (Rojas-Garcia et al., 2018). Effective discharge planning should consist of patient assessment, development of a comprehensive discharge plan, provision of services, patient education, and a follow-up evaluation to promote positive health outcomes (Reddick & Holland, 2015). A review of the literature cited ineffective discharge planning, poor communication, limited post-acute placement facilities,

extended healthcare needs, financial and social issues, and other non-medical reasons as common barriers to timely discharge (Khanna, Sier, Boyle, & Zeitz, 2016).

Ineffective discharge planning results in decreased patient flow throughout the organization, from the emergency department (ED), outpatient clinics, or transfers to the intensive care units (ICU). According to Holland, Pacyna, Gillard, and Carter, (2016) short delays for multiple patients quickly add up resulting in whole days of delay with financial implications for the organization. Additional factors to consider include the health literacy and comorbidities of the patient population experiencing the delay. To reduce readmissions and promote self-care, effective discharge planning should address post discharge patient care needs, and identify available resources prior to discharge.

Problem Background and Significance

The healthcare organization selected is a Veterans Affairs Medical Center (VAMC) with rapid growth, caring for over 2,000 new veterans annually. This VAMC has the third busiest ED among other VA medical centers, seeing approximately 90 patients daily with an average of 20.4 admissions and 20.6 discharges daily impeding patient flow. The VA serves a unique patient population representing socioeconomic challenges and limited resources. These complex patients frequently suffer from multiple comorbidities, mental illness, low health literacy, and homelessness resulting in poorer health outcomes.

Constant pressure to discharge patients as quickly as possible has resulted in patients leaving prior to establishing a sufficient discharge plan. This process has proven to be problematic for those requiring additional resources such as people who are elderly, homeless, and have mental health conditions (Pellett, 2016). Studies report a

disproportionate level of older veterans and African Americans with low or inadequate health literacy may be at a disadvantage when reviewing patient education materials potentially affecting healthcare outcomes (Rodriguez et al., 2013). These barriers combined with limited resources make it challenging to discharge veterans within the desired timeframe without early discharge screening and care coordination.

Complex medical conditions and associated mental illnesses experienced by veterans often require coordination of additional community resources prior to discharge. Transitions in care from the hospital to home setting, is a critical period where readmissions may be prevented (Wallace, Perkhounkova, Bohr, & Chung, 2016). The discharge process can be stressful for patients due to complex care needs and low health literacy. According to Shea et al. (2006) low health literacy is associated with limited health vocabulary or difficulty understanding information provided, usually resulting in delayed diagnosis, treatment, or inadequate care management. Low health literacy is a significant barrier to effective self-management and is associated with poorer health outcomes placing the patient at risk post discharge. Low health literacy has been linked to medication discrepancies and discontinuation during the discharge process resulting in increased hospital readmissions. This limitation has been identified as a key predictor for increased utilization of medical service such as frequent emergency room visits. Conducting a comprehensive assessment on admission may identify patients at risk for adverse patient outcomes and readmission. Although patients may have received high quality care during the hospitalization, inefficiencies in the discharge process can quickly diminish the patient's perception of care provided (Holland et al., 2016). Therefore, it is

essential that early screening and a comprehensive discharge plan is established and implemented prior to day of discharge.

Nurses have an essential role in the discharge planning process functioning as a key communicator initiating plans prior to medical stability. Nursing is the discipline with the most patient contact as they are involved in patient care throughout the entire hospital stay. Although discharge planning begins early during hospitalization the nurse remains dependent on the physician's plan of care to coordinate details prior to discharge. Without clear communication from the medical team and other disciplines nurses cannot effectively orchestrate the discharge plan or accurately complete discharge documentation in a timely manner. Nurses rely on effective communication related to an anticipated discharge time, patient education, medications, follow-up care, and post discharge destination. Failure to collaborate prior to day of discharge makes discharge planning more difficult and may influence the nurse's perception of discharge planning (Hansen, Bull, & Gross, 1998). Patients that discharge from the hospital with incomplete discharge plans may incur adverse outcomes leading to readmission.

Older patients often have complex social and medical healthcare needs resulting in a prolonged inpatient stay (Hendy, Patel, Kordbacheh, Laskar, & Harbord 2012). The financial burden of discharge delays can be costly averaging approximately \$3,500 per day (Watkins et al., 2014). Hospital admissions have continuously increased over time resulting in a decrease in inpatient beds. The project site has seen an increase in the number of admissions during Fiscal Year (FY) 17 and report challenges with timely discharge of veterans with complex medical or social issues. Bed pressures are further exacerbated by incremental discharge delays. When the bed demand surpasses the

supply, scheduled elective surgeries are reviewed for cancellation. Implementation of an evidence-based strategy to remedy such delays would provide cost savings for the organization and provide quality patient care. Therefore, the concept of discharge planning should be thoroughly reviewed as the financial and medical implications may alter standard quality metrics.

The current discharge process at the project site is inconsistent and fragmented creating daily discharge delays. According to Khanna et al. (2016) ideal discharge planning begins upon admission. However, the current social work policy at the project site allows social workers and case managers up to 72 hours to complete the initial social screening assessment, excluding holidays and weekends. This timeframe omits patients that admit and discharge over the weekend or prior to the 72-hour timeframe resulting in a different standard of care. Delays in screening postpones early initiation of care coordination and discharge planning. The current social work model at the VA is unique, consisting of social workers, case managers, and nurse practitioners. Role delineation among the disciplines has not been established resulting in duplication or omission of work. In addition, the discharge planning process for medicine, surgery, and psychiatry social workers differs. Without efficient role delineation or implementation of standardized workflow variations in the discharge planning process will exist. Staffing challenges within the organization include limited weekend coverage for social work physical therapy, occupational therapy, and other ancillary staff often result in delayed discharges.

The lack of standardization or use of valid discharge planning tools inhibits the ability to link discharge outcomes related to the initial assessment (Holland, Knafl, &

Bowles, 2012). Existing interdisciplinary team meetings occur weekly prohibiting effective goal setting, timely communication, and care coordination to expedite discharge planning. Delays in initiating social work admission assessments, ineffective interdisciplinary communication, and inconsistent care coordination has resulted in increased length of stay and readmission rates, as well as extended ED wait times. Developing a collaborative approach to discharge planning would improve interdisciplinary communication and mitigate discharge delays.

Problem Recognition

After reviewing strategic analytics for improvement and learning metrics (SAIL), LOS and diversion data at the project site, an opportunity for improvement related to care coordination and discharge planning was discovered. Discharge planning not initiated on admission in conjunction with weekly interdisciplinary discharge planning results in discharge delays, LOS, avoidable bed days of care, and increase patient satisfaction related to the discharge process. The focus of this project was to facilitate an adequate discharge plan through early social screening assessments, implementation of multidisciplinary care coordination, and effective discharge planning.

SECTION II

Needs Assessment

Informal interviews and discussions with multiple stakeholders were done initially to identify barriers and examine perceptions related to the discharge experience. Direct observations of the social workers and case managers were conducted to identify clinical and social barriers to discharge. Health System Redesign (HSR) was consulted to evaluate the organization's readiness for change. System redesign coordinators helped facilitate a collaborative approach to solicit additional information, discuss innovative strategies, and implement an evidenced-based solution to improve discharge planning.

Data was analyzed to identify trends or direct correlations between hospital metrics and patient discharge delays. The hospital length of stay (LOS) has steadily increased from 6.30 in FY16 to 6.75 in FY17, ED wait times have risen from 383 minutes in FY16 to 408 minutes in FY17, while all cause readmission rates have increased from 12.4 in FY 2016 to 13.4 in FY 2017. Press Ganey reports only 59% of the patients surveyed felt ready for discharge. The facility's high occupancy rate, greater than 85%, in combination with frequent patient discharge delays have resulted in increased diversion, a temporary status when the hospital is full and unable to accept admissions. Frequent diversion during FY17 resulted in the facility initiating the high census plan, a strategic plan of operation to triage patient flow when the hospital has reached maximum census.

An informal meeting with social workers, case managers, and utilization management coordinators was conducted to discuss common barriers resulting in discharge delays. The group identified over 30 potential causes for discharge delays

beyond the patient deemed medically stable for discharge (see Appendix A). The purpose of this project will focus on interdisciplinary communication for complex discharges.

Population/Community

The project site is located in the southeast region of the United States. This 251-bed level one tertiary care has 151 acute-care beds and 100 inpatient community-care skilled nursing facility beds. This VAMC is a teaching and research facility maintaining academic affiliation with three universities. This organization serves as a major referral center for North Carolina, southern Virginia, northern South Carolina and eastern Tennessee, servicing approximately 200,000 veterans annually in over 27 counties.

Stakeholders

Implementing a better discharge process requires involvement from multiple stakeholders. The Associate Director for Patient Care Service/Chief Nurse Executive and the Associate Chief Nurse Executive for Performance Improvement and Research agreed to be on the project committee and serve as project champions. The interim hospital director was instrumental in the implementation of this project. The interim director's experience in social work and support for interdisciplinary communication were factors influencing the approval of this quality improvement project. To implement a sustainable project, middle and upper managers' support was essential to ensure accountability from stakeholders. Social workers, nurses, physicians, and other disciplines must be engaged in the discharge planning process and provide accurate feedback in a timely manner to develop a comprehensive discharge plan. Physician buy-in was also critical to the success of this project. The physician establishes the care plan but relies on other

disciplines to provide feedback and updates related to ongoing care or discharge planning. Effective discharge planning and patient satisfaction requires engagement and collaboration from all disciplines.

Organizational Assessment

Vision Statement

The Veterans Affairs Medical Center will continue to be the benchmark of excellence and value in health care and benefits by providing exemplary services that are both patient centered and evidence based. This care will be delivered by engaged, collaborative teams in an integrated environment that supports learning, discovery, and continuous improvement. It will emphasize prevention and population health and contribute to the nation's well-being through education, research and service in National emergencies (United States Department of Veterans Affairs, 2015).

Mission

Honor America's veterans by providing exceptional health care that improves their health and well-being (United States Department of Veterans Affairs, 2015).

Mission Statement

To fulfill President Lincoln's promise "To care for him who shall have borne the battle, and for his widow, and his orphan" by serving and honoring the men and women who are America's Veterans (United States Department of Veterans Affairs, 2015).

Core Values

- Integrity: Act with high moral principle. Adhere to the highest professional standards. Maintain the trust and confidence of all with whom I engage.

- Commitment: Work diligently to serve Veterans and other beneficiaries. Be driven by an earnest belief in VA's mission. Fulfill my individual responsibilities and organizational responsibilities.
- Advocacy: Be truly Veteran-centric by identifying, fully considering, and appropriately advancing the interests of Veterans and other beneficiaries.
- Respect: Treat all those I serve and with whom I work with dignity and respect. Show respect to earn it.
- Excellence: Strive for the highest quality and continuous improvement. Be thoughtful and decisive in leadership, accountable for my actions, willing to admit mistakes, and rigorous in correcting them (United States Department of Veterans Affairs, 2015).

SWOT Analysis

This SWOT analysis measures the project site against local hospitals and other VAMCs (Table 1). Strengths of the current discharge process includes an established multidisciplinary team with effective social work and physician communication. These disciplines work together as a team to facilitate care coordination and discharge planning. Veterans are screened on admission for advance directives and social issues to identify existing resources and begin goals of care planning. Identified weaknesses within the organization consist of inadequate weekend social work coverage, lack of standardized processes, and role delineation. Weekly interdisciplinary team meetings occur every Monday delaying timely exchange of essential information throughout the week.

The implementation of SAIL metrics serves as a score card rating the quality of care provided within VAMCs. Length of stay is one of the nine domains measured

within the metrics for each VAMC. Failure to reduce LOS may result in lower overall hospital quality rankings for the organization. External threats include decreased reimbursement for extended LOS or hospital readmissions within 30 days. Best practices from other VAMCs includes a daily IDT structural model outlining stakeholders, discussion format, and benefits to the organization. Physicians with academic affiliation report existing obligations and daily post conferences that may hinder timely discharge process. The inability to adequately manage patient flow at the project site would result in increased admissions in local community hospitals or other VAMCs.

Although these weaknesses exist stakeholders desire to improve discharge planning by exploring current processes and innovative strategies. Daily interdisciplinary team meetings can be implemented without the facility incurring any additional cost. Implementing standard processes within social work, and modifications to the existing IDT meetings will facilitate shared decision making and enhance communication among the disciplines. A collaborative approach to discharge planning will increase patient satisfaction and promote positive patient outcomes. Continuing to work in silos further erodes the communication between staff and patients hindering family support. Without implementation of an evidenced-based strategy to address LOS and readmission rates they will continue to increase while access to care and patient satisfaction relate to discharge decreases. Although challenges to implementation of daily IDT exist, the support from executive leadership, stakeholders, and the multidisciplinary team outweigh the barriers.

Table 1

Strengths, Weaknesses, Opportunities, and Threats (SWOT)

SWOT Analysis	
Strengths	Weaknesses
<ul style="list-style-type: none"> • Existing multidisciplinary team (Social Workers, RN/NP Case Managers) • Social work & physician communication • Goals of Care Planning screening on admission for advanced care directives • Patient advocacy for veteran issues • Leadership in support of strategies to decrease LOS 	<ul style="list-style-type: none"> • Lack of standard work/processes and role delineation • Inadequate weekend Social Work coverage • Teams meet weekly for IDT meeting • Decreased patient satisfaction related to discharge process
Opportunities	Threats
<ul style="list-style-type: none"> • Influences from local hospitals • Daily IDT model/structure shared from other VAMCs • National VA initiative to decrease LOS and 30-day readmissions 	<ul style="list-style-type: none"> • Decreased reimbursement for increased LOS and 30-day readmission • Physician obligations interfere with timely discharge

SECTION III

Literature Review

Problem Literature Review

An initial literature review was conducted to explore root causes for discharge delays, barriers to effective discharge planning, and strategies to improve the discharge planning process. ProQuest, Cumulative Index for Nursing and Allied Health Literature (CINAHL), PubMed, and EBSCOhost were searched. Keywords were discharge delays, interdisciplinary communication, discharge barriers, discharge planning, patient delays, length of stay strategies and complex discharges. Common themes that emerged from the initial search included; ineffective communication, lack of care coordination, lack of collaboration, and clinical or social barriers. Additional causes for delays cited in the literature included clinical factors such as changes in specialties, need for rehabilitation, additional testing, and variations in the discharge planning process. Social factors that hindered timely discharge were lack of post-acute care services, facility placement, inadequate social support, transportation, and caregiver, family or patient discharge readiness. This expanded review of the literature will support the problem statement and identify best strategies to improve discharge planning.

External Factors as Barriers to Effective Discharge Planning

Guardianship

Elderly patients are more vulnerable and often incur increased LOS as they generally require additional resources to coordinate discharge (Afilalo et al., 2015). However, vulnerable patients, such as the mentally ill or those incapacitated during hospitalization are also more likely to experience discharge delays related to guardianship.

procedures (Chen, Finn, Homa, Onge, & Caller 2016). Those who do not regain capacity and do not have a durable power of attorney will need a court appointed guardian prior to transferring to a long-term care (LTC) facility. Pursuit of guardianship can be lengthy usually extending well past 90 days. The guardianship process is highly variable and state-specific resulting in procedural delays. The intricate pursuit of guardianship contributes to avoidable bed days of care and unnecessary cost (Chen, Kown, Stevens, & Finn, 2015).

A retrospective study by Chen et al. (2016) was conducted to assess nonclinical factors delaying hospital discharge of guardianship patients. Data was reviewed for patients requiring in-hospital guardianship over a three year period. The facility central patient database repository and utilization review tools were assessed to determine specific delay codes. The overall median number for medically unnecessary days (MUD) was 19.5. Among the subjects (N=48) completing inpatient guardianship, 14 experienced delays due to non-medical reasons. Factors resulting in delays included patients awaiting long-term care Medicaid approval (N=7, 50%), pending insurance (N=3, 21%), social or transportation difficulties (N=3, 21%), while the remaining (N=1, 7%) reported preadmission reviews as a barrier to discharge. Non-clinical delays for guardianship are avoidable bed days of care, nevertheless, the patient often remained hospitalized until the guardianship process was completed. This extended process results in high occupancy of an acute-care bed for patients who are medically stable for discharge.

Placement

An essential part of discharge planning includes early identification of the patient's needs and determining the most appropriate level of care. The need for post-

acute care beds has increased due to rising proportions of older people and increasing rates of chronic diseases (Hall, Peel, Comans, Gray, & Scuffham 2012). The discharge process includes critical elements such as decision making that must occur prior to discharge. Medication administration, discharge instructions, and transportation for follow-up care are key factors that impact patient outcomes. Organizations rely on expert knowledge of clinicians, interdisciplinary team members, or the use of a standardized evaluation tools such as Appropriateness Evaluation Protocol (AEP) to determine if hospitalization is appropriate.

A study by Afilalo et al. (2015) identified the most common factors hindering discharge. In this prospective observational study, data from 333 patients from two adult tertiary care hospitals in Canada were determined to be nonacute on day 30 of hospitalization. The study used AEP to determine the proportion of nonacute patients occupying beds. Afilalo et al. (2015) discovered 55% of the patients had no medical, nursing, or patient needs. Among the nonacute patients with AEP needs 88% were related to nursing /life-support services, while the remaining 12% were related to medical conditions. The researchers noted patients awaiting placement are frequently discharged multiple days after becoming medically stable. Palliative care, LTC, and rehabilitation were identified as common dispositions post discharge. Although this Canadian study examined nonacute patients occupying acute beds on day 30, it supported the need for early identification of community placement options post discharge. Determining social needs early during hospitalization will provide additional days to secure appropriate placement in a facility that meets the patient's needs.

Internal Factors as Barriers to Effective Discharge Planning

Technology and Patient Flow Challenges

Ensuring a patient is at the right level of care, receiving the right treatments at the right time improves efficiency, assures effective use of resources, and promotes quality patient care (Department of Veterans Affairs, 2012). Achieving high quality care in a large healthcare organization requires processes to operate interdependently to ensure success. If any part of the process is inefficient downstream complications will arise resulting in patient flow delays. However, discharge delays as short as one hour may have implications for institutions as well as the patient. Short delays can quickly add up to whole days resulting in hospital throughput inefficiencies, loss of revenue, and decreased patient outcomes and satisfaction. A sizable portion of hospital stays have reported discharge delays ranging from approximately 11% to 37% (Holland et al., 2016).

Since no real mechanism of delay tracking had been identified in the literature, Holland et al. (2016) conducted a study tracking real-time discharge delays by bedside clinicians. The focus of the study was to explore process breakdowns related to discharge by direct care providers. A discharge planning workgroup team was developed and tasked to identify potential root causes of delays. A comprehensive list was compiled to develop a questionnaire. The questionnaire was built into a Research Electronic Data Capture (REDCap) tool. Upon initiation data was collected and analyzed monthly using rapid-cycle improvement techniques to modify the tool. The tool collected logistical data, reasons for the delay, and free text comments and concerns.

Aggregate data summarized the total for delay hours, count of cases by day of week time, day, unit, and reasons for delays. During the eight-month study 114 reported delays were gathered. Delay time totaled 23.6 days. Among the identified delays 70 (61.4%) occurred for patients with a disposition to home/self-care. Among the 114, 30 (26.3%) delays lasted greater than four hours. Delays were noted to occur more frequently on Tuesday and Thursdays between 10:00 am 1:00 pm. More than one reason was cited for 45.6% of the discharge delays with the most common reasons being completion of discharge summary (N=41). Other delays included unavailable medication prescriptions (N=21) and miscommunication among the team (N=21). Common themes that contributed to the delays included delay in written discharge orders, unclear discharge plans, and patient perceptions of discharge time. The patient's expectation of earlier discharge time was the result of verbal exchanges with the medical team and pre-arranged transportation needs. The implementation of a tracking tool revealed the ability to track delays, process breakdowns, and inefficiencies in the system, identifying areas for process improvement and mitigating discharge delays.

Poor Communication

Discharge planning is a multifaceted interaction that relies heavily on effective communication between all disciplines and the patient to be successful. Poor communication in a patient's discharge plan can result in readmission, adverse events post discharge, and mortality (Okoniewska et al., 2015). According to Kohn, Corrigan, and Donaldson (2000), poor communication between the medical team accounts for up to 70% of medical errors. A qualitative content analysis study was conducted by Okoniewska et al. (2015) to examine the physician's perception of communication

related to discharge planning, and explore solutions to address discharge barriers. This quality improvement activity was conducted over the course of one month on a medical unit in an academic facility. The providers were asked to identify the barriers between different health care providers that limit effective discharge from the designated unit. Providers were given cue cards with the single open-ended questions to write their response without limitations. Responses from the providers were analyzed to identify similarities. Comments received from 11 allied health providers, 26 nurses, 25 internal medicine residents and seven medical attendings identified the following themes: communication, lack of role clarity, and lack of resources.

All members of the team identified communication as essential to effective discharge planning (Okoniewska et al., 2015). However, healthcare providers cited gaps in communication between allied health professionals related to rehabilitation services. Although patients were deemed medically stable for discharge they required additional days from a rehabilitation perspective. Other members reported the medical teams frequently failed to communicate patient needs for education related to diagnosis, medications or follow-up treatment. Participants verbalized the importance of collaborating prior to developing a discharge plan to clarify the roles and delegate assigned tasks. Lack of internal and external resources were also highlighted as key factors to expedite patient discharge.

Participants in the study provided solutions for the identified barriers to improve discharge planning (Okoniewska et al., 2015). Strategies to enhance discharge planning included the implementation of “bullet rounds” a condensed version of daily discharge rounds with multidisciplinary team members. Participants suggested creating a position

for a discharge planner to act as a liaison to the team to coordinate an efficient discharge plan. This study highlighted the importance of discharge planning and provided effective strategies to facilitate interdisciplinary communication that could result in improved outcomes for the patient and the discharging facility.

Collaboration

Patients are stakeholders as well as the end customers of a highly effective discharge plan. Ideal discharge planning incorporates the patient into the decision-making process to obtain personal thoughts, goals, and adherence to the plan. Failure to collaborate with internal and external stakeholders can impede discharge planning and erode communication. In 1998, Hansen et al. explored the perceptions of collaboration that best predict discharge planning communication (DPC) among elderly patients with congestive heart failure (CHF). The researchers also examined the differences in perceptions of collaboration between staff nurses, physicians, and social workers. A cross-sectional survey was distributed within two large community hospitals with similar models of nursing care delivery and discharge planning procedures. The instrument used in the study focused on three aspects of collaboration: communication, problem solving/conflict management, and coordination. Communication was assessed for openness, satisfaction, and the ability to verbalize without fear, repercussions or misunderstanding. Collaboration was also assessed by measuring conflict resolution within and between other units.

Questionnaires were returned from 97 registered nurses, 13 licensed practical nurses, 27 physicians, and five social workers. There were no significant differences between the two hospitals. However, significant differences were noted among the nurse

and physician perceptions of collaboration and discharge planning communication. Nurses rated both communication and problem solving with other nurses, social workers, patients, and families favorably. However, problem solving between nurses and physicians was viewed unfavorably while communication was viewed as neither favorable nor unfavorable (Hansen et al., 1998). Although social workers expressed favorable views of communication among nurses and physicians, they reported physician interactions were often met with resistance and nursing contact was limited due to busy assignments. Social workers expressed satisfaction with communication among patient and families but perceived patients as dissatisfied with physician communication and noted communication between the units as an area needing improvement. Nurses gave less favorable ratings to communication between nurses and physicians ($t=-5.44$; $P=.000$), communication satisfaction with patient and families ($t=-2.502$; $P=.014$) and problem solving among nurses and physicians ($t=-3.187$; $P=.003$). While physicians on the other hand rated problem solving with social workers more favorable ($t=2.658$; $P=.009$) as well as coordination ($t=2.148$; $P=.044$). These findings support previous research in which nurses rated communication and collaboration less favorably than physicians. Although numerous studies have been done citing the need for collaboration among the health care team, engagement of the patient in the decision-making process would facilitate ideal discharge planning (Canary & Wilkins, 2017).

Timely discharge of patients when medically safe is key to control cost, promote positive health outcomes, and increase quality of care. Patients who stay longer than necessary are at risk for adverse complications (Ragavan, Svec, & Shieh, 2017). Ragavan et al. (2017) evaluated barriers resulting in unnecessary delays greater than 24

hours from the physician's perspective. The researchers developed and implemented biweekly surveys reviewed by attendings, and conducted interviews of staff members involved in the discharge planning process. The survey was used by physicians to quantify and characterize discharge delays. Interviews with all team members were conducted to identify additional barriers and seek recommendations to reduce discharge delays. During this four week prospective study, 259 discharges occurred with 87 (33.6%) having one or more issues resulting in a delay greater than 24 hours (Ragavan et al., 2017). The total quantifiable delay days for all 87 patients was 281. Compiled data listed lack of patient readiness, placement resources, effective communication, timely notification of discharge, standardized discharge processes, and wait times for procedures, test, and consults as frequent reasons for delays. All disciplines provided recommendations to decrease barriers to discharge. This unique study used mixed-methods to gain understanding and obtain suggestions related to improving the discharge process.

Hospital discharge can be perceived as a complex, and confusing process having a detrimental effect on the patient. A qualitative study by Canary and Wilkins (2017) investigated parents' perceptions of a pediatric hospital discharge experience. Data was collected over a two year study period using an iterative process. Focus groups and interviews were conducted with parents, primary care providers, and hospitalists to explore discharge experiences and ideas for improvement. The audio recorded focus groups were moderated by the researchers and lasted 45-90 minutes, while the individual interviews lasted from 35-70 minutes.

A detailed data analysis yielded five thematic categories: (a) discharge problems, (b) teamwork, (c) ideal discharge, (d) care chasm, and (e) discharge paradox (Canary & Wilkins, 2017). The most common discharge problems were medication issues and missed communication interaction opportunities. All participants identified teamwork as a crucial element influencing discharge planning. Parents expressed a desire to be included in the discharge planning phase and suggested using dry erase white boards to communicate with family members. To develop the ideal discharge plan parents discussed preparing for discharge upon admission. In addition, the parents also recommended using a discharge checklist, and discharge readiness assessment tool to prepare for discharge prior to medical stability. Outcomes of this study further validated the need for robust multidirectional communication to improve the discharge experience, and patient satisfaction (Canary & Wilkins, 2017). Although the patient is the center and primary focus of the discharge process, additional strategies are warranted to promote feelings of inclusion for patients.

Care Coordination and Discharge Planning

Discharge delays when the patient is medically stable are problematic, having a negative impact on hospital throughput and patient satisfaction. Watkins et al. (2014) conducted a retrospective study over a one-year period to identify factors associated with discharge delays after medical clearance. Charts were reviewed to identify discharge readiness, and discrepancies were noted between actual discharge and date of medical clearance. Inconsistencies were used to determine factors resulting in discharge delays. Over the study period 1,594 patients were admitted to the trauma service with 510 receiving social work consults. Among these patients 270 (53%) experienced discharge

delays from 1 to 19 days with an average of 2.5 days. Injury severity score, mechanism of the injury, ICU stay, total LOS and post-hospital placement were factors significantly contributing to discharge delays (Watkins et al., 2014). Age and payer status were assessed but did not yield noteworthy results as there was not a difference noted between private and government insurance delays. Interestingly delays for patients with no insurance were lower than those with insurance. Patients with fewer options are likely discharged to home in lieu of transfers to other skilled or rehabilitation facilities. Patients with insurance may experience lengthy waits to obtain prior approval leading to discharge delays. Other barriers to discharge identified included durable medical equipment, home health needs and insurance issues and medical delays (Watkins et al., 2014). Difficulty scheduling procedures, delays completing consults, and physician errors resulted in additional days for study participants.

Literature Review for Best Practice Strategy

Nurse-Led Discharge Planning

A comprehensive discharge plan includes an assessment of the patient's readiness for discharge, need for additional education related to unmet care needs, and patient safety beyond discharge (Maramba, Richards, Myers, & Larrabee, 2004). Discharge safety requires collaboration among team members, both internally and externally, to coordinate support services. The nurse has a vital role in the discharge planning process serving as the liaison between the healthcare professionals, patient, and caregivers to coordinate resources prior to discharge. A study done by Fox (2016) found that nurse-led discharge planning programmes (DPP) are effective in reducing readmission length of stay, associated health care cost, and increase patient satisfaction with discharge planning

and quality of life. This systematic review and meta-analysis of 10 randomized controlled trials (RCT) sought to compare nurse-led DPP to standard care of hospitalized patients. A total of 3,438 participants with heart disease, hip fractures, and psychiatric disorders participated in the study. The research revealed no statistical differences between nurse-led DPP and standard care in hospital LOS, however, nurse-led DPP reduced the readmission LOS by two days and reduced by 30% the risk of all-cause mortality. Findings from this study suggest early initiation of nurse-led DPP may offer benefits with discharge planning, patient satisfaction, reduce associated healthcare cost, and improve quality of life (Fox, 2016). Additional research is needed to determine the best practice to decrease hospital LOS when using a nurse-led model.

Tools

Existing research supports the use of discharge planning tools to facilitate early screening for complex discharges. Patients with complicated discharges often require coordination of additional resources. Therefore, early intervention may provide adequate time to coordinate additional resources for continuing care post discharge. Cunic, Lacombe, Mohajer, Grant, and Wood (2014) evaluated the impact of pre-surgical screening using the Blaylock Risk Assessment Screening Score (BRASS) to predict LOS and identify patients in need of discharge planning. The BRASS is comprised of a 10-item scale that derive scores between 0 and 40 with higher scores predicting a complex discharge or extended LOS. Retrospective chart reviews were conducted and 1,934 patients met inclusion criteria. Data from the study suggests patients with a BRASS of 8-10 following surgery were likely to stay in the hospital greater than five days. There was a significant correlation between increased BRASS and longer postoperative LOS, so

admission screening was done to identify and coordinate pre-emptive social work consults to facilitate effective discharge planning prior to medical stability. Although this study focused on surgical patient the results supports early screening as a tool to predict increased LOS and anticipated needs.

Another study by Okafor et al. (2017) explored the use of a daily discharge goals checklist to decrease discharge delays and increase patient satisfaction. A posttest randomized controlled design was used to evaluate the use of the checklist during daily interprofessional rounds. The researchers initiated a modified version of the daily ICU goals form on admission for the intervention group. The difference in time between medical stability for discharge and actual discharge were assessed along with patient satisfaction related to discharge teaching. The daily goals checklist was used for the intervention group (N=36) and the control group (N=29). The time difference between the medical readiness and actual discharge ranged between 0.6 to 33.4 hours averaging 3.9 ± 2.2 and 5.4 ± 6.9 for the intervention group and usual care group. Although the intervention group was shorter than the control group, it was not statistically significant ($p > 0.05$). Patient satisfaction was rated high and statistically similar ($p > 0.05$) for both groups (Okafor et al., 2017). Although tools may enhance discharge planning they cannot replace the role of the healthcare team to adequately assess the needs of the patient and coordinate care prior to discharge.

Discharge planning is a deliberate process that involves a thorough assessment of the patient's current needs while anticipating future needs to prevent adverse consequences post discharge. The literature reveals a lack of standardized assessment components which can differentiate between "routine" and further discharge planning. In

2012, Holland and Bowles used a quasi-experimental, nonequivalent comparison group design to explore the effects of standardized discharge planning assessment tools on discharge planning outcomes. This study was conducted using a convenience sample of 260 patients from medical surgical units. A nursing needs assessment instrument (NNAI) was developed onsite and tested for validity, reliability, effectiveness, and feasibility. A Problems after Discharge Questionnaire-English (PADQ-E) structured survey was used to measure self-reported problems after discharge. Usual care prior to the study included no standardized process for discharge planning assessments. Nurses assessed the patient's discharge needs on admission and periodically throughout the hospitalization for changes in the patient's condition. The information collected was used to develop a discharge plan based on one nurse's perception of continuing care needs. The PADQ-E, discharge disposition, and referrals made to post-acute services were collected from the comparison group. After compiling data from the comparison group, the investigator provided instructional training on how to complete the NNAI.

A significant difference between the groups was found in the number of patients reporting unmet needs (Holland & Bowles, 2012). Overall the intervention group reported fewer unmet needs post discharge ($P=.01$), unmet information needs ($P=.02$), problems with discharge instructions ($P=.04$), unmet personal care needs ($P=0.53$) and fewer homecare referrals ($P=.41$). These statistics are consistent with previous findings suggesting a systematic process to gather and analyze assessment data is essential to an efficient discharge planning process. The researcher concluded that implementing a standardized discharge planning assessment tool would facilitate accurate assessment of

continuing care needs, foster coordination of adequate resources improving the quality of discharge planning (Holland & Bowles, 2012).

Interdisciplinary Collaboration

Collaboration in healthcare was traditionally defined as interaction between the doctor and nurse. However, interdisciplinary rounding (IDR), multidisciplinary rounding (MDR), or bed huddles is the term given to structured gatherings comprised of the following disciplines: physicians, nurses, case managers, social workers, quality management, pharmacy, and other ancillary services (Terra, 2015). Multiple studies have examined the benefits of interdisciplinary collaboration on the discharge process. Outcomes identified have included improved communication, patient satisfaction, and quality of care.

In 2005, Vazirani et al. examined the impact of a multidisciplinary intervention on communication and collaboration among nurses and doctors. The study was conducted over a two year period in a Veteran's Affairs Medical Center (VAMC) on a medical unit. Participants included attendings (N=45), house staff (N=111), and nurses (N=123). The intervention team added a nurse practitioner (NP) and began daily MDR on weekdays excluding holidays while the control group staff remained the same. The NP promoted use of disease specific pathways, provided patient education, completed medication reconciliation, and called the patient weekly for four weeks post discharge. Surveys were given to the nurses and physicians prior to changing rotations to acquire accurate feedback regarding communication and collaboration among the disciplines. Nurses in both the intervention and control groups reported similar levels of communication ($P=.59$) and collaboration ($P=.47$) with physicians. However, the physicians reported

significantly higher perceptions of collaboration with nurses in the intervention group ($P < .001$). Results from this study validated existing research suggesting perhaps physicians and nurses view collaboration differently.

Effective communication is critical to patient care quality and safety. Poor communication can result in lack of patient engagement or decreased understanding of the team members' roles and responsibilities. An effective strategy to promote patient safety includes establishing structured collaborative processes among the disciplines. Bahr et al. (2016) conducted a qualitative study to examine the redesigned interprofessional team rounding process. The sample consisted of inpatient care team members from adult medical-surgical units. Consolidated Framework for Implementation Research (CFIR) was used to develop interview guides for the study subjects. This instrument was also used to analyze and organize the findings. Data was obtained from face to face interviews with seven providers, six patients, and a focus group containing 20 nurses along with nine observations of the health team rounding. The patients expressed positive feedback related to bedside rounds but reported a lack of coordination among teams and felt excluded in the decision-making process. Although nurses expressed value in the new rounding process it was not viewed as a priority and often missed. The providers supported the patient inclusion in interdisciplinary communication but identified barriers and existing challenges to sustainability. This qualitative analysis highlights the value of team rounding as well as the challenges that impede this evidence-based solution (Bahr et al., 2016).

Ryan, Scott, and Fields (2017) explored the use of rapid rounds in observation units to improve nurse efficiency. The setting was a 55-bed unit in a magnet community

hospital. Rapid rounds were identified as an evidence-based strategy and implemented to improve discharge efficiency. Interdisciplinary clinicians (nurses, social workers, case managers, and pharmacist) huddled for one-hour Monday, Wednesday, and Friday to coordinate discharge plans of care. The clinical nurses became the liaison between the disciplines and the physician. Stop sign-shaped magnets next to the patient's name on the assignment board were used to inform physicians of the need to exchange information or answer questions. During the initial implementation phase, the nurse educator and clinical nurse specialist (CNS) guided the nurses to ensure relevant and accurate information was being discussed. Metrics for evaluation of the intervention included Press Ganey patient satisfaction survey, and the frequency of nurse-physician calls. The Press Ganey rankings related to discharge readiness, speed of discharge and the number of nurse-physician calls improved while patient satisfaction with discharge instructions decreased. Pre-implementation, there were 109 instances of contact with the physicians for the following reasons: discharge orders (n=24), medications (n=20), test/procedures (n=18), and labs values (n=18). Two weeks post implementation the physician contact dramatically decreased to 68 instances (Ryan et al., 2017). The top four reasons for contact also significantly dropped discharge orders (n=13), medications (n=12), vital signs (n=11), and lab values (n=8). Overall there was a significant decrease ($P<.001$) in the total number of calls and pages to physicians after implementing rapid rounds. Pharmacists who attended rapid rounds tracked the number of pharmaceutical interventions such as duplicate medications, conversions of intravenous to oral medications, and suggestions of more appropriate antibiotics. Eight weeks post implementation pharmacy reported a total of 87 interventions. This evidence-based

strategy has proven beneficial to improve interdisciplinary communication, nurse efficiency, and patient satisfaction with the discharge plan. However, it is critical that the implementation process be well structured, supported by leadership, and inclusive of frontline staff to be successful.

Interdisciplinary rounding in the inpatient setting is designed to facilitate collaboration among the disciplines with the goal of improving communication. Several studies on IDR evaluated the design, setting, and outcomes. A study conducted by Mosher, Lose, Leslie, Pennathur, and Kaboli (2015) explored the impact of redesigned note templates and educational training to improve documentation by the IDR team members. The project design consisted of observations and measurements of the IDR with a Plan-Do-Study-Act (PDSA) cycle to implement changes. Pre- and post-intervention note completion rates were measured by the number of patients with a note per ward days. The documentation completion rate improved from 27% over 85 days to 69% over 119 days. The time spent discussing patients increased from 64 seconds to 72 seconds per patient post intervention. Recommendations pre-implementation of the redesigned IDR included better role delineation, starting on time, and scheduling IDR earlier in the day. Post-intervention suggestions related to the IDR were limited to improving the environment by acquiring a bigger room for the meeting, and identifying patient needs earlier during the hospital stay. The participants in this study perceived the meeting as a high-quality round that benefited from the use of standardized templates (Mosher et al., 2015). The author suggested that future studies must be conducted in various settings to obtain generalizable data.

A study by Zakzesky, Klink, McAndrew, Schroeter, and Johnson (2015) investigated the patient's perspective regarding MDR, a structured rounding process with various disciplines collaborating to develop a comprehensive discharge plan. A qualitative, descriptive survey design was used to determine if patients value a multidisciplinary approach to discharge planning. Patients were recruited from a 32-bed surgical-trauma unit in the Midwest. A convenience sample of 14 patients who were discharged Monday through Friday between the hours of 08:00 a.m. and 09:00 p.m. met the inclusion criteria. MDR team members were educated regarding the purpose and expectations of MDR. Patients participated in interviews ranging between 10-20 minutes with responses recorded and transcribed verbatim. A thematic analysis was used to gain insight regarding the patient's perspective. Overarching themes "bridges and barriers to discharge" were identified by the patients as things that either helped or hindered discharge. Timelines, tasks, frequent communication, social support, and patient's motivation for discharge were viewed as bridges while medical setbacks, insurance limitations and infrequent communication were viewed as barriers to discharge (Zakzesky et al., 2015). Patients perceived their readiness for discharge was linked to achieving goals identified during MDR. However, patients did not view their role in the MDR as a collaborative partnership. This study emphasized the patient's view of MDR on the impact of discharge planning.

Structured interprofessional communication when designed appropriately should allow exchange of accurate information and provide clarity regarding the plan of care. A prospective study conducted by Powazki, Walsh, and Shrotriya (2015) observed interdisciplinary team meetings (IDTM) to determine the exact clinical content discussed.

Attendance for team members were mandatory occurring Monday-Friday at 08:00 for approximately 30 minutes. A preprinted IDTM agenda was distributed to all participants to help guide the discussion and present perspectives to update the care plan. IDTM observation was done every Wednesday for eight weeks. The observer transcribed verbatim any discussed clinical issues. A total of 59 patients were discussed in 240 minutes yielding 145 disparate clinical items. The results were analyzed and further grouped into nine common themes: (a) information exchange, (b) care goals, (c) clinical transitions, (d) patient caregiver, (e) family dynamics, (f) medial operations, (g) resource access, (h) discharge plan, and (i) family spokesperson. This study focused on the complexity of IDTM communication and the significance of accurate exchange of information that is time-sensitive in nature. This study highlighted team members proactive approach to recognize care needs, report concerns, identify clinical problem, and present the best comprehensive discharge plan to the patient and family.

Summary

The review of literature confirms the need for collaboration among healthcare professionals to establish a comprehensive discharge plan. Problems identified throughout the literature include poor communication, lack of care coordination, and lack of collaboration to develop a comprehensive discharge plan (Holland et al., 2016). The literature uncovered varying perceptions of nursing and other disciplines related to communication, collaboration, and effective discharge planning. In existing research nursing rated the communication with providers as less favorable while physicians reported communication and collaboration as favorable (Hansen et al., 1998). Social workers also reported challenges when attempting to collaborate with other disciplines in

a timely manner due to work demands. In addition, social workers also voiced concerns related to patient dissatisfaction with physician communication (Hansen et al., 1998). Patients on the other hand, expressed feelings of frustration related to the discharge experience and lack of engagement in the discharge planning phase (Canary & Wilkins, 2017). The opposing views related to discharge planning suggest differences among the stakeholders, perceptions of effective communication, and collaboration related to the discharge experience.

Interdisciplinary communication has been deemed essential to ideal discharge planning. However, poor execution, improper roll-out, and inconsistent leadership are factors that may derail the process making it difficult to sustain (Terra, 2015). Effective discharge planning exists when all stakeholders are engaged in the decision-making process collaborating to establish an effective discharge plan. A review of the literature revealed several strategies to facilitate efficient discharge planning: nurse-led discharge planning, implementation of tools, and IDR/IDT as ideal strategies to improve discharge planning. Nurse led discharge planning was explored but would require restructuring the existing social work model and a request for additional staffing to implement a discharge coordinator; therefore, was not ideal given the limited timeframe for this project. Multiple discharge planning tools have been developed to facilitate discharge planning. However, most tools required additional responsibilities for a selected discipline, and failed to facilitate a collaborative approach to discharge planning further eroding communication (Holland et al., 2016).

The concept of IDR is not new and has been acknowledged in the literature as an effective strategy to improve care quality using patient-focused communication to

promote effective discharge planning (Ryan et al., 2017). Interdisciplinary communication is an evidence-based strategy with identified benefits by many healthcare professionals in various settings. The use of discharge tracking tools or checklists may enhance the process. Interdisciplinary interactions establish a forum in which healthcare professionals can coordinate efficient cost-effective, evidenced-based patient care. Daily IDTM is an innovative strategy that provides the most benefits and best outcomes; therefore, ideal for DNP project implementation. The purpose of this project was to examine the impact of daily IDTM on discharge planning, LOS, and patient satisfaction.

SECTION IV

Project Purpose, Goal, and Objective

Project Purpose and Goal

Interdisciplinary collaboration has been documented to improve communication among disciplines and facilitate care coordination to establish discharge plans. Frequent exchange of accurate information is essential when establishing discharge plans prior to a targeted discharge date to mitigate discharge delays when the patient is medically stable. Effective communication among the group will foster early identification of barriers to discharge, promote patient satisfaction, decrease avoidable bed days of care, as well as length of stay. The purpose of this project was best practice implementation of daily interdisciplinary team (IDT) meetings to streamline the discharge process by identifying roles and responsibilities for each discipline and mobilizing resources to promote efficient discharge planning and reduce discharge delays. Multidisciplinary rounds have found to enhance communication, collaboration, discharge planning, and improve patient care outcomes.

Project Objective

The objectives of a collaborative daily approach to discharge planning will be to improve perception of interdisciplinary communication, reduce length of stay and avoidable bed days of care, and improve patient satisfaction.

SECTION V

Theoretical Framework

This evidenced-based project to improve interdisciplinary communication and discharge planning used Jean Watson's Theory of Human Caring. The incorporation of theoretical models serves as a foundation that guides present and future practices. Watson's Theory of Human Caring (2008) has been considered the moral/ethical foundation for the nursing profession. Human Caring Science incorporates mindbodyspirit health care that is relevant to all service fields, education, leadership, administration and alternative professions (Watson Caring Science Institute, 2010). Core concepts of the theory focuses on the relational caring for self and others, transpersonal caring relationship, caring occasional/caring moments, and a reflective approach. A relational caring for self and others is based on one's moral, ethical, and philosophical beliefs related to love (Watson Caring Science Institute, 2010). Transpersonal caring relationships transcend to higher level caring experiences that foster human dignity and respect for others through connectivity (Watson Caring Science Institute, 2010). Caring moments exist when two people come together and encounter a shared authentic, intentional, experience that leads to new self discovery. A reflective approach transpires when self reflection leads to understanding others, their beliefs and ideas. Caring is an inclusive process that changes all involved (Watson Caring Science Institute, 2010).

Watson's 10 Caritas

1. Practicing loving-kindness and equanimity within context of caring consciousness.
 2. Being authentically present and enabling, and sustaining the deep belief system and subjective life world of self and one-being cared for.
 3. Cultivating one's own spiritual practices and transpersonal self, going beyond ego self.
 4. Developing and sustaining a helping-trusting, authentic caring relationship.
 5. Being present to, and supportive of the expression of positive and negative feelings.
 6. Creatively using self and all ways of knowing as part of the caring process; engaging in artistry of caring-healing practices.
 7. Engaging in genuine teaching-learning experience that attends to wholeness and meaning, attempting to stay within other's frame of reference.
 8. Creating healing environment at all levels, whereby wholeness, beauty, comfort, dignity, and peace are potentiated.
 9. Assisting with basic needs, with an intentional caring consciousness, administering 'human care essentials,' which potentiate alignment of mind-body-spirit, wholeness in all aspects of care.
 10. Opening and attending to mysterious dimensions of one's life-death; soul care for self and the one-being-cared for; "allowing and being open to miracles."
- (Watson Caring Science Institute, 2010).

The effects of caring has been researched yielding positive client outcomes. Preliminary data reports linkage between nurse caring behaviors, patient satisfaction, total length of stay, and economic value to healthcare organizations (Zaccanini & White, 2017). The project design was based on three caritas: #4- developing and sustaining a helping-trusting, authentic caring relationship, #8- creating healing environment at all levels, whereby wholeness, beauty, comfort, dignity, and peace are potentiated, and #9- assisting with basic needs, with an intentional caring consciousness, administering 'human care essentials,' which potentiate alignment of mind-body-spirit, wholeness in all aspects of care. Daily interdisciplinary team meetings will allow all disciplines caring for the patient to collaborate, identifying potential barriers, and develop a plan with measurable goals. Daily IDT meetings will facilitate a caring atmosphere between the disciplines (providers, nurses, physical therapy, occupational therapy, nutrition, social workers). This multilateral exchange of information will build relationships, and enhance communication thus leading to expedited discharge planning. This process will enhance the care of the patient during hospitalization and post discharge to decrease avoidable bed days of care (see Figure 1).

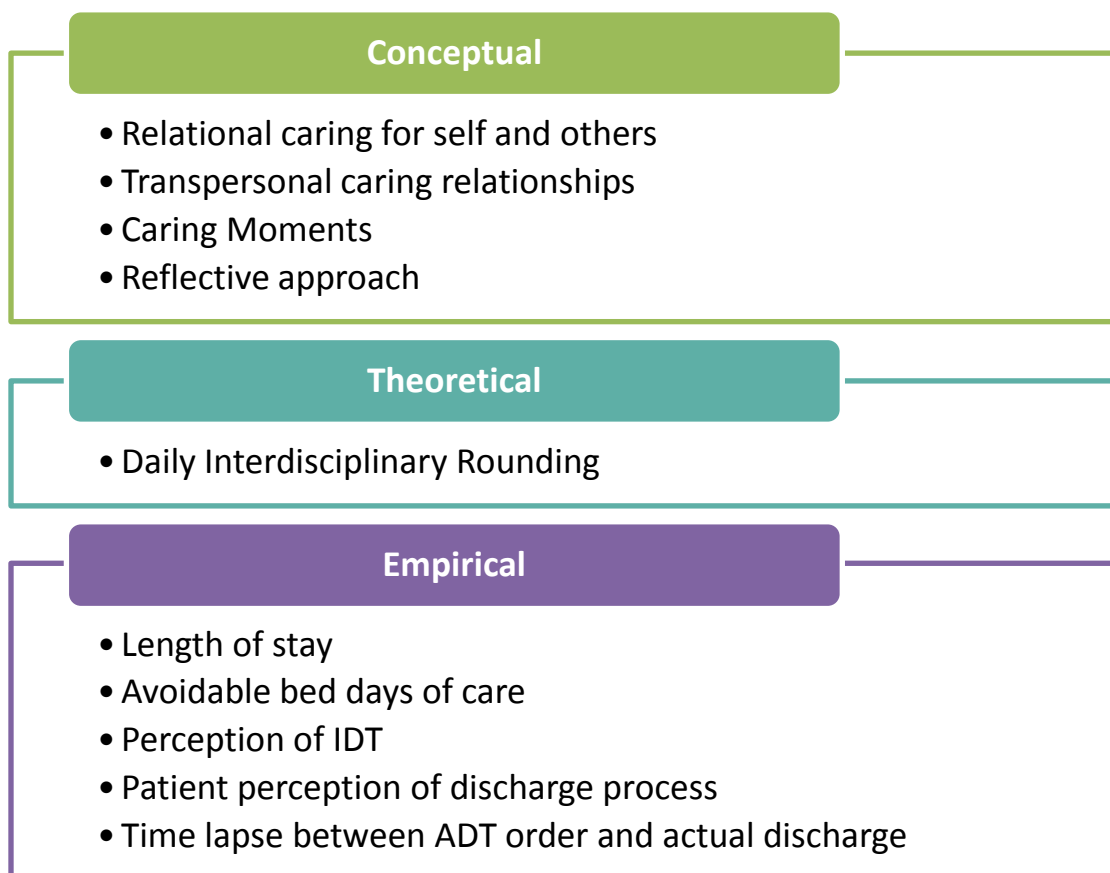
JEAN WATSON'S HUMAN CARING THEORY

Figure 1. Conceptual-Theoretical-Empirical (CTE) Diagram

SECTION VI

Project Design

The proposed project design was to complete discharge screening within 48 hours of admission for Hospitalist Red/Blue and Red 1/Blue 1 teams for two months (November-December) to identify discharge barriers. The project focused on daily IDT to expedite discharge planning. Interdisciplinary communication was planned to occur daily to mobilize resources, expedite tests or procedures, and plan for care post discharge. The project manager reviewed information documented by the social worker/nurse/nurse practitioner during the initial assessment conducted within 48 hours of admission. The initial social work assessment was reviewed to determine discharge barriers and identify additional consults ordered to expedite discharge planning. The multidisciplinary team (Medicine Teams, Physical Therapy, Speech Therapy, Occupational Therapy, Nutrition, Nursing, Utilization Management, and Social Work) met daily to complete consults and address barriers prior to discharge. Outcome measures included total length of stay and the time lapse between the discharge order and actual discharge time. These outcomes were calculated for all patients on the Hospitalist Red/Blue and Red 1/Blue 1 teams, meeting the following criteria:

Inclusion Criteria:

- Patients admitted to Hospitalist Red, Red 1, Hospitalist Blue & Blue 1 Teams
- Length of stay > 48hours

Exclusion Criteria:

- Patients not admitted to Hospitalist Red, Red 1, Hospitalist Blue & Blue 1 Team
- Patients with a length of stay <48 hours

- Patients discharged prior to initial discharge screen including (AMA, death)

The Veterans' responses to the speed of discharge and readiness for discharge were obtained from documented two day discharge follow-up calls. Pre/Post implementation LOS and avoidable bed days of care were collected and analyzed to identify trends using descriptive statistics. The LOS and avoidable bed days of care were compared to other medical teams at the facility.

Setting

The setting for the proposed project was a 251-bed level I tertiary care referral, teaching, and research facility in southeast region of the United States. This organization provides care to over 200,000 veterans annually.

Population/Selection of Interdisciplinary Team

Participants in the project included healthcare providers of multiple disciplines (social workers, nurse case managers, utilization managers, providers, physical therapists, occupational therapists, speech therapists, nutritionists, and charge nurses). Team members from each discipline were invited via electronic mail, and face-to-face communication (N=45). Healthcare providers were encouraged to participate as a representative from each service line by the executive leadership team sponsor, Chief of Medicine, Chief of Social Work, Nurse Managers, and frontline supervisors. During this pilot phase the IDT members were expected to attend a daily meeting at 11:00 a.m. IDT members unable to attend were encouraged to send a representative from the service line in their absence.

Timeline and GANTT Chart

Table 2

Project Timeline

PROJECT TIMELINE	
DATE	MILESTONE
Apr 2017	• Problem identification
Apr 2017	• Needs assessment
May 2017	• Problem literature review
May 2017	• SWOT Analysis
Jun 2017	• Project goals, objectives, and mission statement
Jun 2017	• Theoretical underpinnings
Jul 2017	• Project design literature review
Jul 2017	• Project consultations and designing
Aug 2017	• Project consultations and development
Aug 2017	• Project proposal and work planning
Sep2017	• Project evaluation consultation
Set 2017	• Project evaluation development
Oct 2017	• IRB submission for project site and university approval
Nov 2017	• Project implementation
Dec 2017	• Post implementation survey
Jan 2018	• Survey data analysis

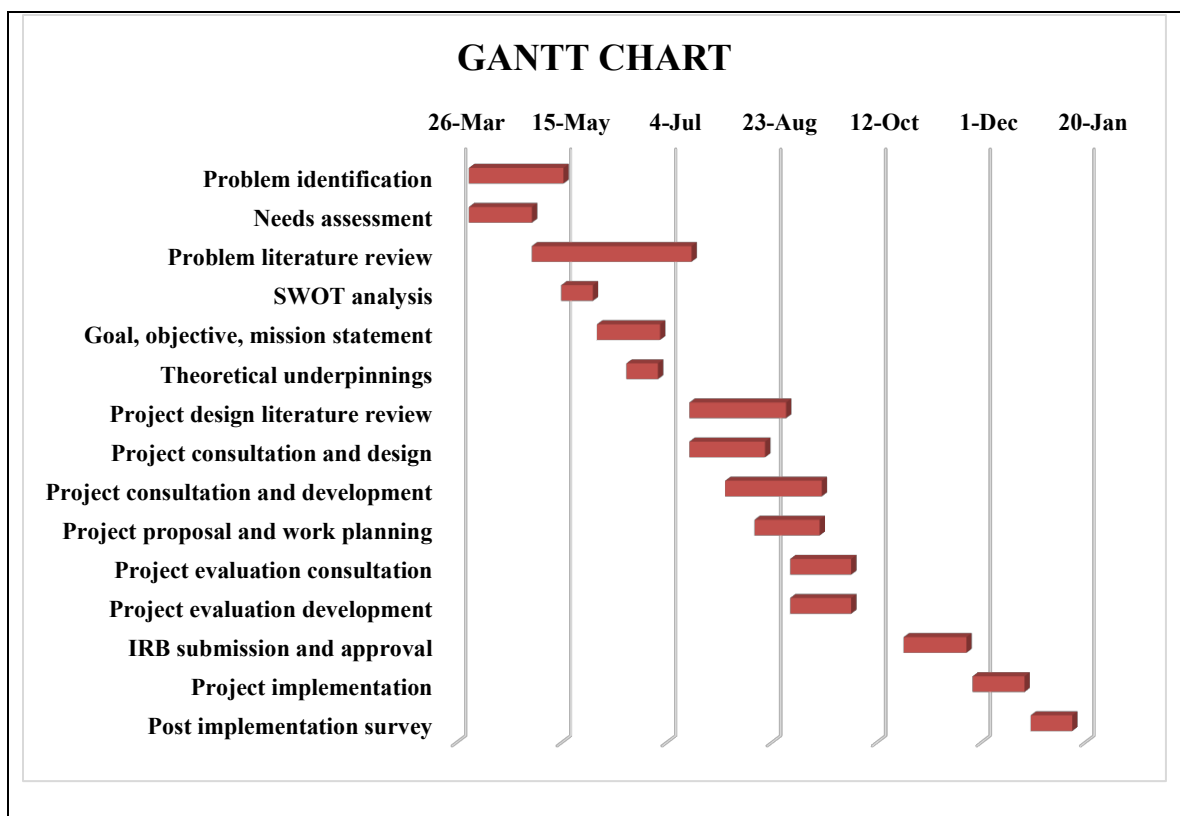


Figure 2. GANTT Chart

Outcome Evaluation Measures

The project administrator planned to distribute a post-survey via survey monkey to all IDT participants to evaluate the collaborative process among disciplines related to discharge planning. The following additional metrics were collected and analyzed to determine the impact of daily IDT:

1. Pre/Post implementation length of stay (LOS) data of teams participating in the pilot for FY17 and 1st Quarter FY18 (see Figure 3).
2. Avoidable bed days of care data for participating teams, defined as the number of days patients remained inpatient but did not meet InterQual criteria (see Figure 4).
3. Time lapse between anticipated discharge time documented in Admission Discharge Transfer (ADT) order and Actual discharge from floor (see Figure 5).
4. Patient perception of discharge process discussed during two day discharge follow-up call (see Figures 6, 7, 8).
5. Perception of Interdisciplinary Communication Survey (PICS) (Appendix B, see Figures 9-21).

The 13-item PICS was a modified version of Vazirani's (2005) interdisciplinary survey. The author cited face validity and internal consistency reliability for the multi-item scales ranging from 0.64 to 0.91 with a median reliability of 0.84 (Vazirani et al., 2005). The PICS was distributed to members of the IDT via survey monkey after the two month pilot was completed. Questions focused on team members' perceptions of collaboration and communication during IDT.

Cost Benefit Analysis

There were no additional costs associated with implementation of daily IDT. This redesign and change of the existing process was absorbed as requirements of the capstone project. The main anticipated expense included preparation time (30 minutes) and presentation time (15 minutes) during daily IDT meeting. Currently time loss occurs incrementally throughout the day for communication with various disciplines. Implementation of daily IDT would allow a scheduled exchange of information with all disciplines to prevent multiple interruptions throughout the day for exchange of information related to discharge planning potentially improving workflow.

Ethical Considerations

Since this was an evidence-based process improvement project, it posed no risk to involved participants. The project was approved by the Institutional Review Boards (IRBs) at the VA facility and the University. There was no deception of any kind involved or incentives offered for participation in this project. Study participants reserved the right to change their mind, refuse to answer questions, or withdraw from the study at any time. No associated physical, psychological, legal, economic, social or genetic risk or discomforts were expected from participation in daily IDT or retrospective review of medical records. Minimal risk to the interdisciplinary communication process includes team approach, staffing challenges, and limited time to prepare for daily IDT.

No identifiable data was collected. All data collected and compiled was stored on the S drive with access given only to the principal investigator S:\QualityManagement\Utilization Management\Discharge Screen. The raw data was shared with the DNP

project advisor. Original data will be submitted and stored at the University's School of Nursing and destroyed three years following completion of the project.

SECTION VII

Implementation

Project Implementation

The project administrator conducted many formal and informal meetings with representatives of existing IDTs to identify perceived challenges and solicit active participation in the process change. To foster engagement into the change process, individual meetings were planned with the chief of nursing, social work, and medicine. Feedback from stakeholders identified teams for the pilot and ideal times for best results. Hospitalist Red/Blue, and Red1/Blue1 teams were teaching teams selected for this project pilot. Hospitalist Red teams were identified as the team to pilot due to the structural model. Hospitalist Red was selected because they were an admitting team with an attending, three year resident, and a social worker. This team was ideal for the project because they rotated attendings weekly, allowing feedback from multiple providers.

The lead Hospitalist was educated regarding the redesign of the existing interdisciplinary team meeting. Structural changes required participants to attend the daily IDT at 11:00 a.m. instead of the normal scheduled weekly meeting at 2:00 pm on Mondays. This change in time was made to accommodate the attendings' schedule after morning rounds. Attendings were asked to participate in the IDT instead of residents or interns to promote accuracy of the information being shared. All participants were instructed to report daily in the designated conference room at 11:00 a.m. except social workers and providers who were instructed to arrive at scheduled 15-minute intervals to promote efficient use of time.

Providers were asked to provide a presentation overview including the patient's history, brief overview of admission, clinical treatment being provided, anticipated discharge date, pending tests or procedures, plan for the day, and potential barriers to discharge. Nurse managers were asked to discuss areas for improvement related to the discharge planning process from a nursing perspective. Nurses reported not being aware of the discharge plan resulted in patient delays and stress for involved parties. Nurse managers were expected to send a unit representative to provide pertinent information related to the patient's care, participation in activities of daily living, refusal of medications, or ability to conduct self-care. Nurse participation was held essential to attain and distribute the plan of care to other staff members, patients, and caregivers in a timely manner. Information provided during the meeting was utilized to implement timely discharges later in the day.

Direct observations with social workers and case managers were essential to understand the work flow between the disciplines, and identify potential causes of delay. Social work attendance was expected as core members of the discharge planning team. The discharge planning team tasks included completing timely initial assessments, identifying existing barriers to discharge, exploring resources for care post discharge, and following up on pending tests, procedures, or lab results. Ancillary services such as speech therapy, physical therapy, occupational therapy and nutrition reviewed available consultative services and updates on patient progress, and provided recommendations for care after discharge.

Prior to implementation, a formal planning session was held with all services to discuss the process improvement plan, resources needed, and the implementation rollout.

A conference room with a phone and computer access on a medicine floor was reserved throughout the pilot. This provided a secure location with essential resources to enter orders, contact other departments for follow up, or document changes. The IDT meetings occurred daily Monday through Friday at 11:00 a.m. in the sixth-floor medicine conference room with representation from all disciplines for a total of four weeks. Participants in the IDT meeting were expected to assess patients that met the inclusion criteria prior to the meeting and provide feedback, comments, or suggestions related to discharge planning.

The expected length of IDT was 60 minutes (15 minutes per team). However, once initiated daily IDT only lasted 35-45 minutes. The physicians initiated the meeting with all other disciplines providing essential feedback or recommendations during the discussion. Initially social work was the most verbal but as time went on other disciplines became more verbal and provided essential feedback. Approximately 18 to 20 healthcare providers attended the meeting. In the absence of the provider a social worker or case manager would initiate the IDT discussions.

A calendar including contact information for all disciplines was created for participants of daily IDT to facilitate ongoing collaboration outside of daily meetings. Hospitalist Red was selected initially to test the process. Red 1 team was added later in the week because they shared the same attending, followed by Hospitalist Blue and Blue 1 the following week. Once IRB approvals were obtained, project implementation began November 27, 2017 and ended December 22, 2017 to accommodate holiday coverage schedule.

Project Challenges

Anticipated challenges encountered during the project included existing team structure, time restraints, and frequent leadership changes. The medicine providers and social workers were assigned to teams and paired together while the other ancillary services were unit based thus, hindering collaboration among consistent team members for collaborative decision making. The structure of the medical teams varied with some attendings rotating every three weeks while others remained constant. This variance resulted in lengthy reports during daily IDT when the provider was not familiar with the patients. Other teams not selected for the pilot were excluded due to structural setup and rounding times. Teams with attendings working in specialty clinics were not selected due to clinic and rounding times not coinciding with scheduled IDT meeting times. The timing of IDT meeting, although determined by the providers, was not always ideal. Since the meeting occurred at 11 a.m. many times patients discussed during IDT had not been evaluated by all disciplines. IDT meetings occurred daily Monday through Friday for a total of 20 days. Throughout the pilot various disciplines (N=45) attended daily IDT. Inpatients assigned to Red 1, Blue 1, and Hospitalist Red/Blue teams meeting the inclusion criteria (N=142) during the study period were discussed during daily IDT. As a participant, the project manager observed physicians or social workers leading the discussions during IDT. Initially nursing and case management appeared reserved, providing little feedback related to the patient's progress or challenges. As they became more comfortable with the new reporting format, nurses and case management staff increased communication and verbalized recommendations to the team. As the exchange of information and ideas from other disciplines increased, nursing and nurse case

managers became more engaged sharing concerns related to self-care post discharge. As a participant, the project manager saw an increase in interdisciplinary communication, and accuracy of the information provided due to IDT structural changes requiring attendings to participate instead of residents. This change was significant allowing others to review the discharge plan in a timely manner, provide feedback, and identify strategies to mitigate discharge barriers.

The redesign of IDT led by experienced attendings provided detailed information outlining established treatment plans. The providers began communicating results, changes, or pending discharges during the daily IDT. This information was used by all disciplines to prioritize workload, redistribute staffing, and plan for anticipated discharge date. Previously, information provided by residents was not as detailed and changed frequently after meeting with the attending, creating confusion for the social work team.

Interdisciplinary communication and accountability was enhanced during the pilot through face to face interactions. Although they had shared patients and exchanged information, many of the participants met each other for the first time during IDT. Ancillary disciplines, along with nursing and social work, became more engaged in the verbal exchange making recommendations to establish a comprehensive discharge plan. Nursing utilized anticipated discharge orders to plan assignments, complete patient education, and staff for the upcoming shift. Social work collaborated with physical therapy to prioritize patients awaiting recommendations for skilled nursing facility placements. Physical therapy reported feeling valued as an integral part of the discharge planning process. The input from all disciplines fostered a collaborative approach to discharge planning.

Unforeseen barriers to effective discharge planning included multiple transitions among the executive leadership team. The hospital director departed in July, followed by the interim director in September, with the deputy chief of staff and chief nurse leaving the organization in October for other employment opportunities. This mass exodus left the remaining project champions to assume additional responsibilities resulting in decreased support for this project. Major stakeholder changes made it difficult to gain initial project approval, maintain project oversight, and promote sustainability post-implementation. Without executive sponsors in place, interim leaders were hesitant to make decision that would impact the organization. The holiday coverage schedule was another barrier that prohibited the extension of this project beyond December 22, 2017. Multiple leadership changes and the holiday season coinciding with project implementation timeframe, ultimately impacted the implementation schedule and project outcome.

Implementation Summary

Incorporating attendings in IDT provided accurate exchange of detailed information regarding the treatment plan. Each physician discussed the assigned patients within approximately 15 minutes. The estimated time for IDT was 60 minutes. However, the average time ranged between 35 and 45 minutes due to efficiency of the reporting structure and existing knowledge of patients with increased LOS. This shortened time worked well for all disciplines in attendance. Providers in collaboration with other disciplines identified an anticipated discharge date and pending treatments to meet deadlines. Social work and case managers initiated IDT in the absence of the physician and solicited feedback or recommendations from other disciplines. Although

preparation prior to IDT was required, information exchanged allowed disciplines to prioritize workflow. Daily interdisciplinary communication helps promote collaboration among disciplines to establish a comprehensive discharge plan.

SECTION VIII

Results

Daily IDT was piloted for one month with a total of 45 healthcare providers attending. To determine the impact of daily IDT the following measures were used to evaluate outcomes: LOS by team, ABDOC, time lapse between anticipated discharge and actual discharge time, patient perception of the discharge process, and the healthcare provider's perception of IDT communication.

Length of Stay (LOS)

The LOS refers to the number of days the patient spends in the hospital from admission to discharge. The average length of stay (LOS) is often used as an indicator of efficiency related to occupancy and patient flow. It is generally measured by dividing the total number of in-patient hospital days by all inpatients during a year by the number of discharges. This information was obtained electronically, filtered by teams and desired dates, and analyzed monthly by utilization management. The average LOS for Blue 1, Red 1, Hospitalist Blue and Hospitalist Red were compared to the previous fiscal year. As can be seen in Figure 3, Blue 1 average LOS decreased from 5.5 to 5.1, Red 1 decreased from 5.9 to 5.7, Hospitalist Blue decreased from 5.8 to 5.4, while Hospitalist Red increased from 5.5 to 6.2.

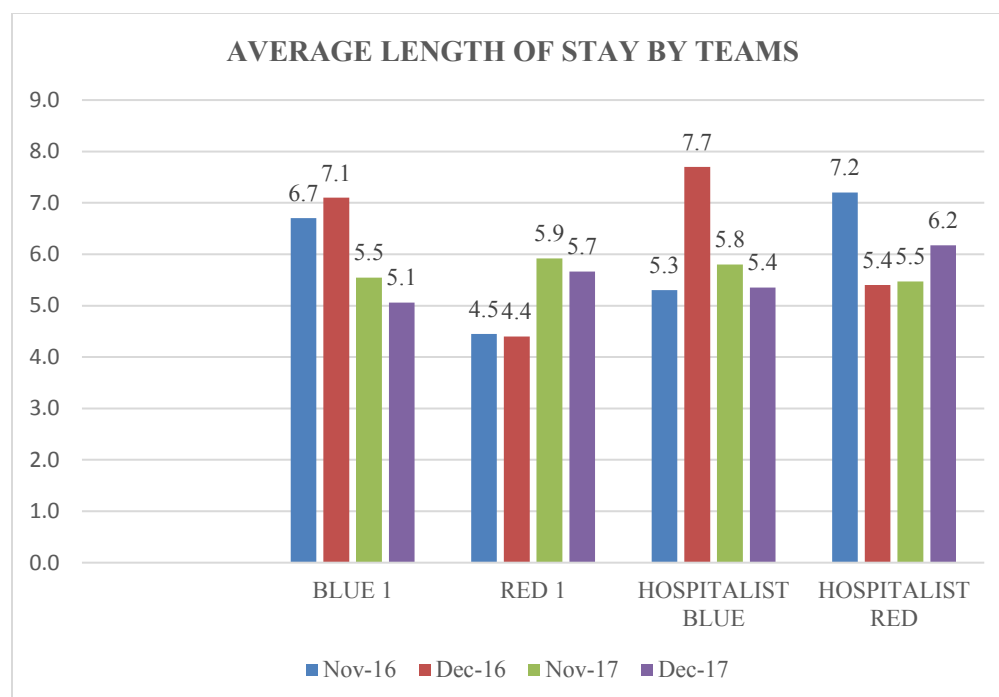


Figure 3. Length of Stay Results by Teams

Avoidable Bed Days of Care (ABDOC)

Avoidable bed days of care (ABDOC) are days the patient remains hospitalized although they do not meet InterQual criteria. InterQual is an evidence-based clinical decision support tool that help providers, insurance, and healthcare agencies make appropriate clinical decisions. The ABDOC were calculated prior to the pilot, during the pilot, and the month immediately following the pilot (see Figure 4). The ABDOC for Blue 1 dropped from 29 to 27 (two days), Hospitalist Blue 59 to 35 (24 days), while the remaining teams increased during the pilot Hospitalist Red from 41 to 45 (four days) and Red 1 25 to 33 (eight days). All teams except Hospitalist Red reported an increase in ABDOC in the month following the conclusion of the pilot. Blue 1 and Red 1 teams reported a doubling of ABDOC in January of 2018 immediately following the conclusion of this pilot.

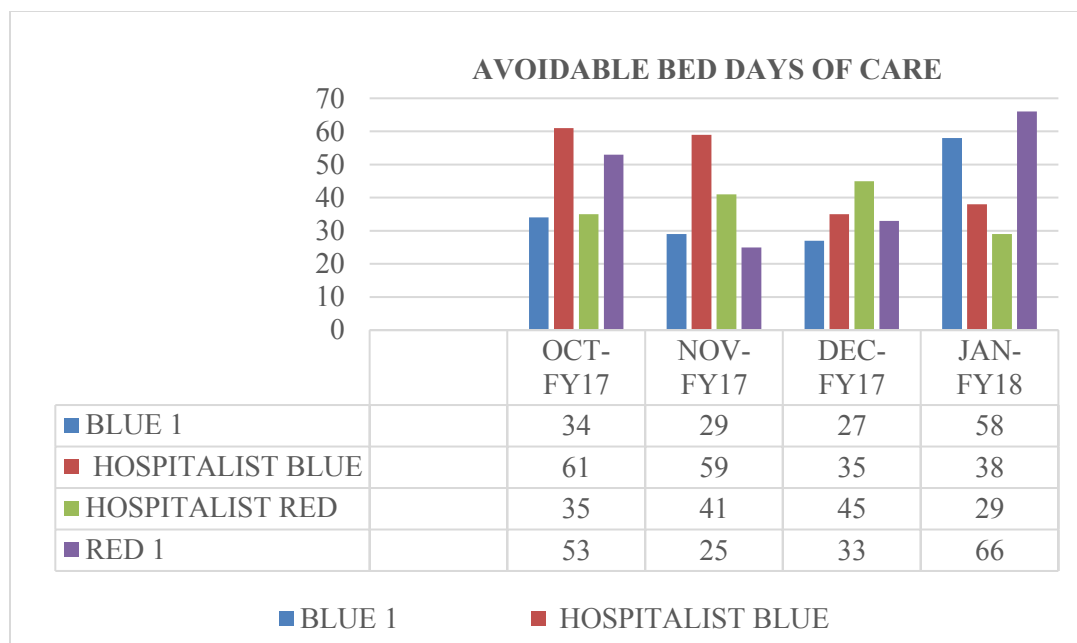


Figure 4. Avoidable Bed Days of Care by Teams

Time between Written Discharge Order and Actual Discharge Time

The difference in time between a written discharge order and actual discharge time is reported in Figure 5. The pilot average lapse between discharge order and actual time discharged was two hours and 23 minutes. The average lapse prior to project implementation obtained in a previous query was greater than two hours. Hospitalist Red had an average of 2:28, Blue 1 2:44, and Red 1 2:24. Hospitalist Blue was the only team with an average lapse time between the written discharge order and actual discharge time of less than two hours (1:59).

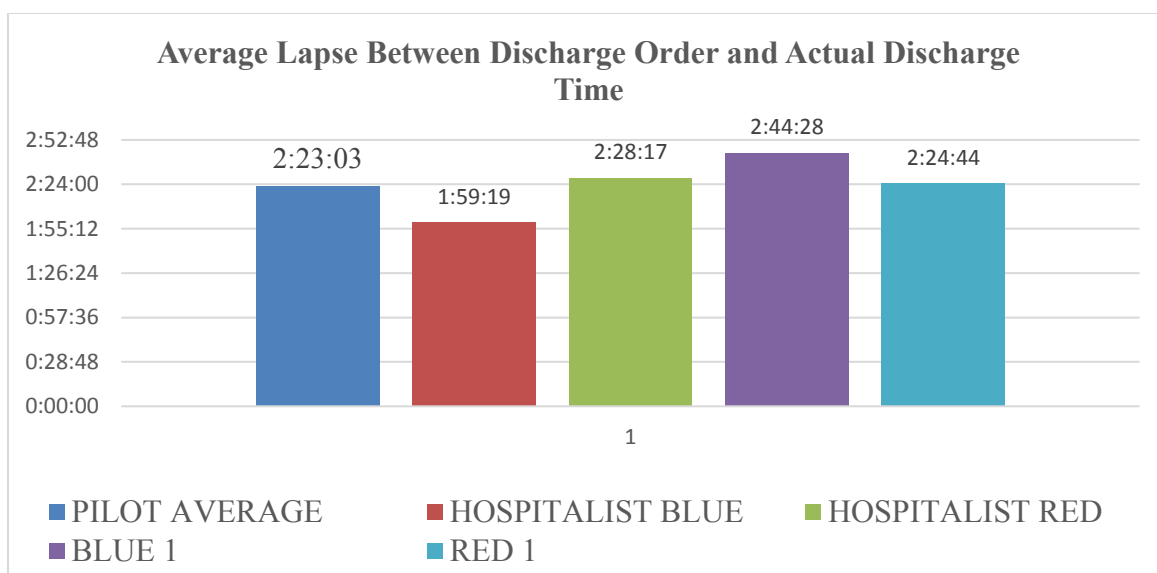


Figure 5. Lapse of Time

Patient Perception of the Discharge Process

Two-day discharge follow-up calls were conducted by the primary nurse care managers to review discharge instructions and medications. To identify potential areas of opportunity related to the discharge process three additional questions were added to the existing discharge follow up call template. Calls were made for all patients who were discharged within 48 hours and assigned to local primary care clinics. Care managers were required to call patients assigned to their teams to review the discharge summary. A total of 142 patients were included in the pilot. A total of 75 patients were called and resulted in successful contact with the patient, family member, or a caregiver. These calls averaged approximately five to seven minutes.

Care managers were required to attempt contact three times within the 48 hours of discharge and document any missed opportunities or wrong numbers in the medical record. Patients who were successfully contacted were asked to assess readiness for

discharge, speed of discharge, and quality of discharge instructions. Patients assigned to primary care teams at other VAMCs were contacted by their assigned primary nurse care manager for a two-day discharge follow up call. The remaining 67 patients were not called due to discharge to a hospice unit, community living center, signed out against medical advice prior to receiving discharge instructions, or were not assigned to a local primary care team. Alternate responses not applicable (N/A) include the patient not being asked the question, no answer when called, or they expired during the inpatient stay or post discharge prior to a follow-up call.

Patient Perception of Discharge Readiness

During the two day discharge follow-up all patients were asked, *Did you feel you were ready to be discharged from the hospital?* Forty-eight percent (N=69) of the participants surveyed responded yes, 4.2% (N=6) no, 4.9% (N=7) did not answer the phone, 6.3% (N=9) were discharged to CLC/hospice, while 35.9% (N=51) were assigned to another VAMC therefore, were not called (see Figure 6).

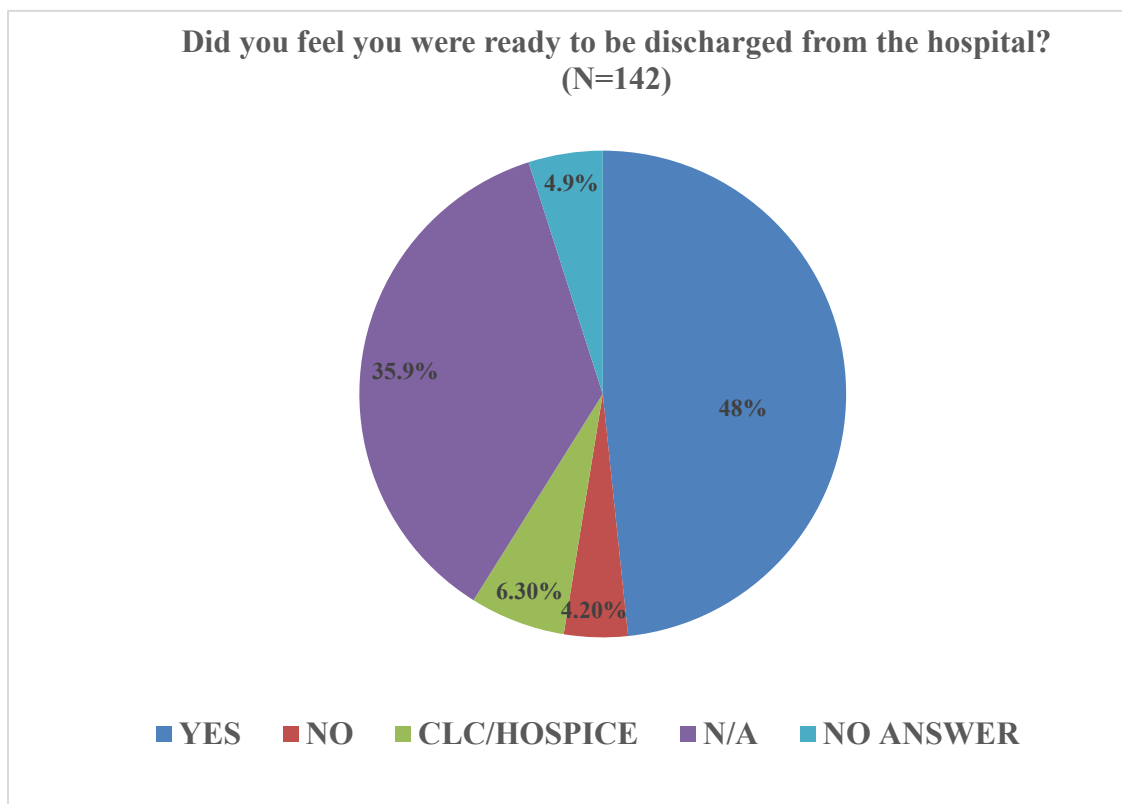


Figure 6. Discharge Readiness

Patient Perception of Speed of Discharge

Patients were also asked, *Once you were told you were being discharged, were you satisfied with the time it took to complete the discharge process?* Fifty percent (N=71) of those surveyed responded yes, 1.4% (N=2) no, 4.9% (N=7) did not answer phone, 6.3% (N=9) were discharge to CLC/hospice, and 37.3% (N=53) were assigned to another VAMC therefore were not called (see Figure 7).

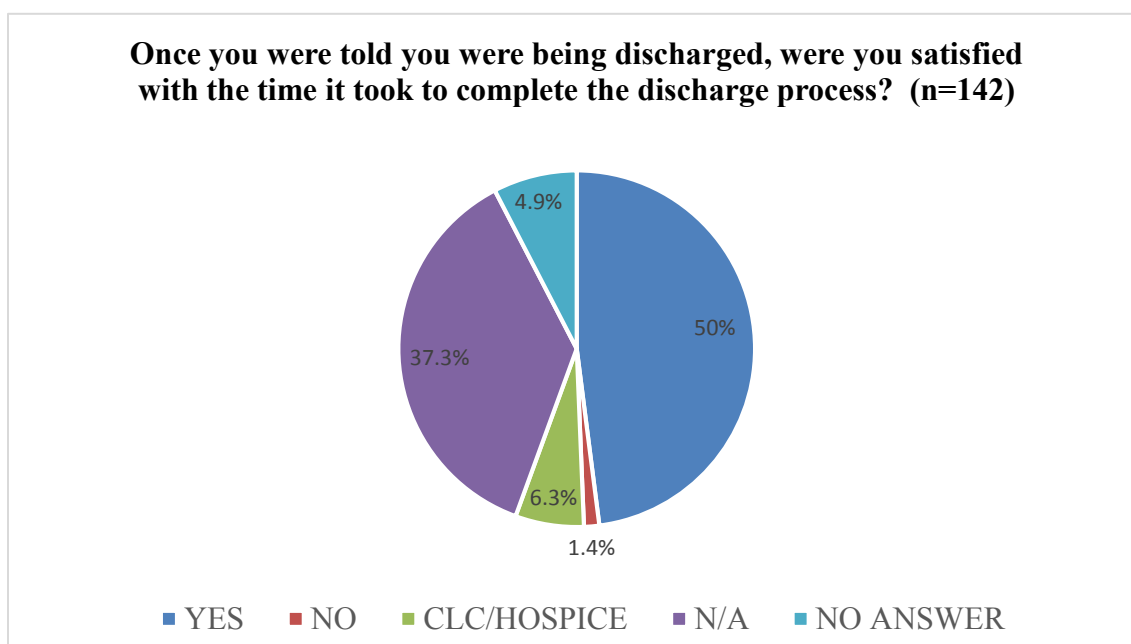


Figure 7. Speed of Discharge

Patient Understanding of Discharge Information

The final question patients were asked during the two day discharge call was, *At discharge, did you feel you received enough information/instruction from the team about how to take care of yourself at home?* Fifty-one percent (N=73) answered yes, 1.4% (N=2) no, 49% (N=7) did not answer the phone, 6.3% (N=9) were discharged to CLC/Hospice, and 35.9% (N=51) were assigned to another VAMC therefore, were not called (see Figure 8).

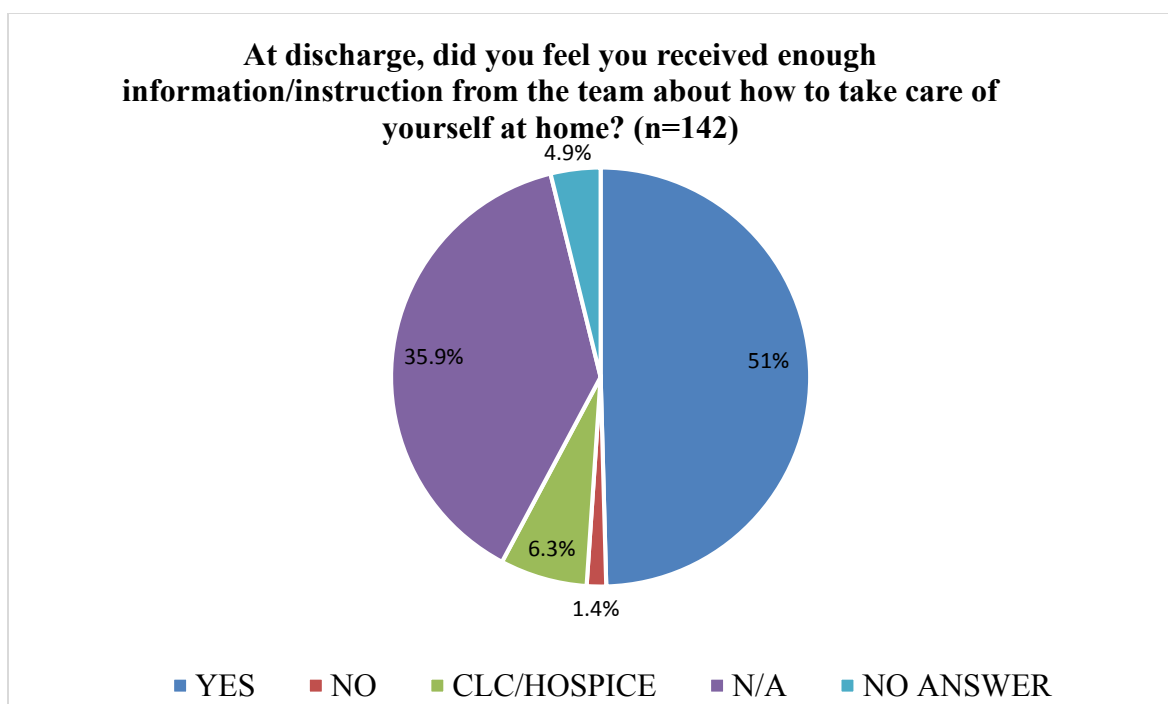


Figure 8. Discharge Information

Caregiver Perception of IDT Communication

The Perception of Interdisciplinary Communication Survey (PICS) was administered to the IDT members via Survey Monkey the week following the conclusion of the IDT pilot. This 13-item Likert scale was used to assess communication and collaboration among the IDT members. Forty-five healthcare providers representing multiple disciplines were invited and participated in the pilot DNP project. The post-survey response rate was 53% (N=24). Twenty-four IDT members completed the survey: physical therapy (N=5), occupational therapy (N=2), speech therapy (N=0), social work (N=5), case manager (N=1), nursing (N=3), utilization managers (N=2), and physicians (N=6) (see Figure 9).

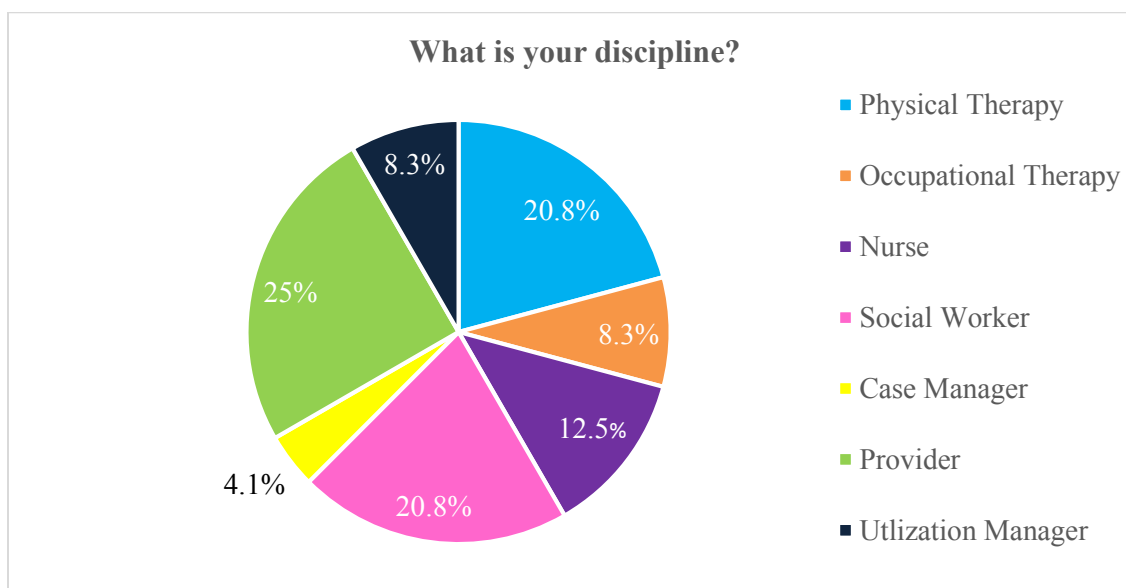


Figure 9. Disciplines of the Survey Participants

IDT Perception of Completeness and Accuracy of IDT Information

The first two questions on the PICS explored the quality of the information exchanged during IDT. Participants were asked, *Did you receive information from the IDT that was less complete than desired?* Eight percent answered all of the time, 42% some of the time, 29% a little of the time, and 21% none of the time (see Figure 10). The next question asked, *Did you feel uncertain about the accuracy of information received by other disciplines?* Seventeen percent of the participants felt uncertain some of the time, 21% a little of the time, while 63% responded none of the time (see Figure 11).

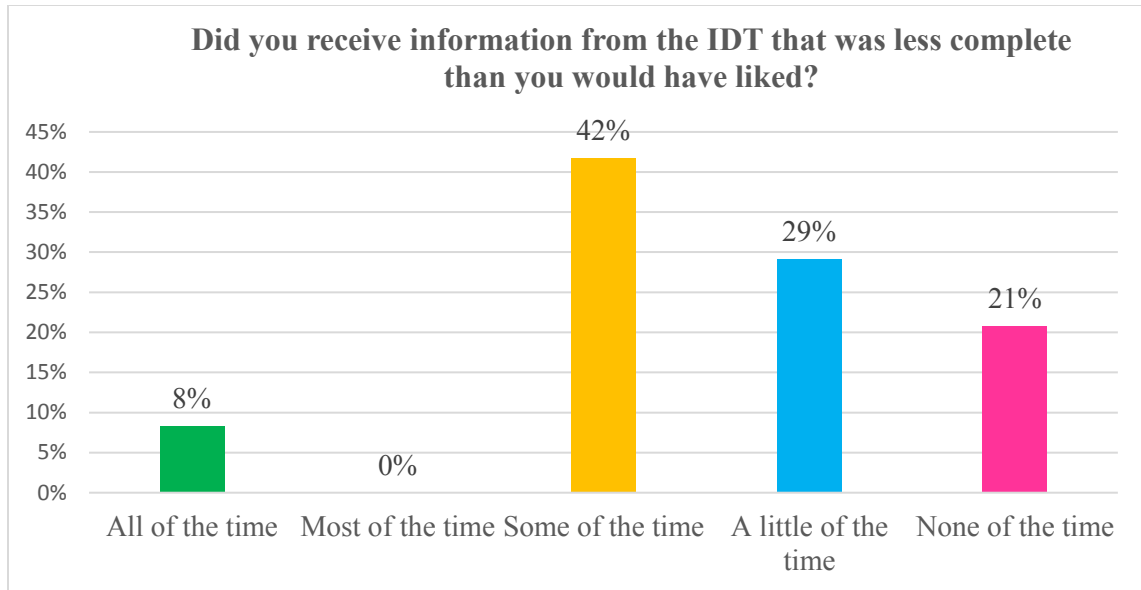


Figure 10. Completeness of IDT Information

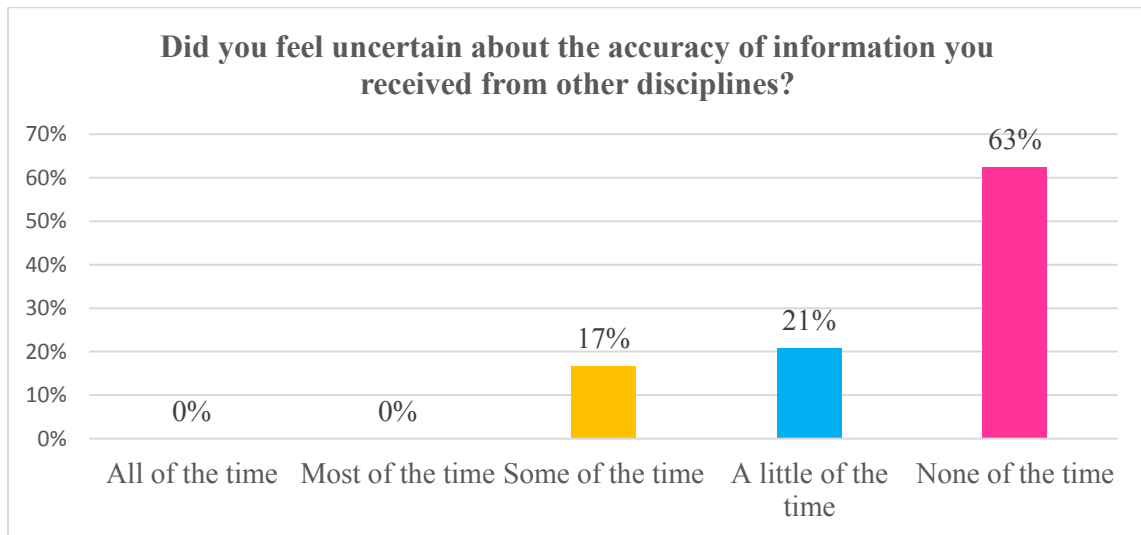


Figure 11. Accuracy of IDT Information

The following four questions examined the interdisciplinary collaboration related to discharge planning. When asked, *Did you enjoy working with other disciplines?* Sixty-three percent responded all of the time, 29% most of the time, and 8% some of the time (see Figure 12). The next question asked, *Did you have easy access to staff outside of the meeting (providers, PT, SW, OT, etc)?* Thirty-three percent answered all of the time, 54% most of the time, and 13% some of the time (see Figure 13). The next question asked, *Did your discipline share in decision making?* Twenty-five percent replied all of the time, 42% most of the time, 25% some of the time, 8% a little of the time (see Figure 14). The last question asked, *Did your discipline comply with decisions?* Forty-eight percent responded all of the time, 40% most of the time, 13% some of the time (see figure 15).

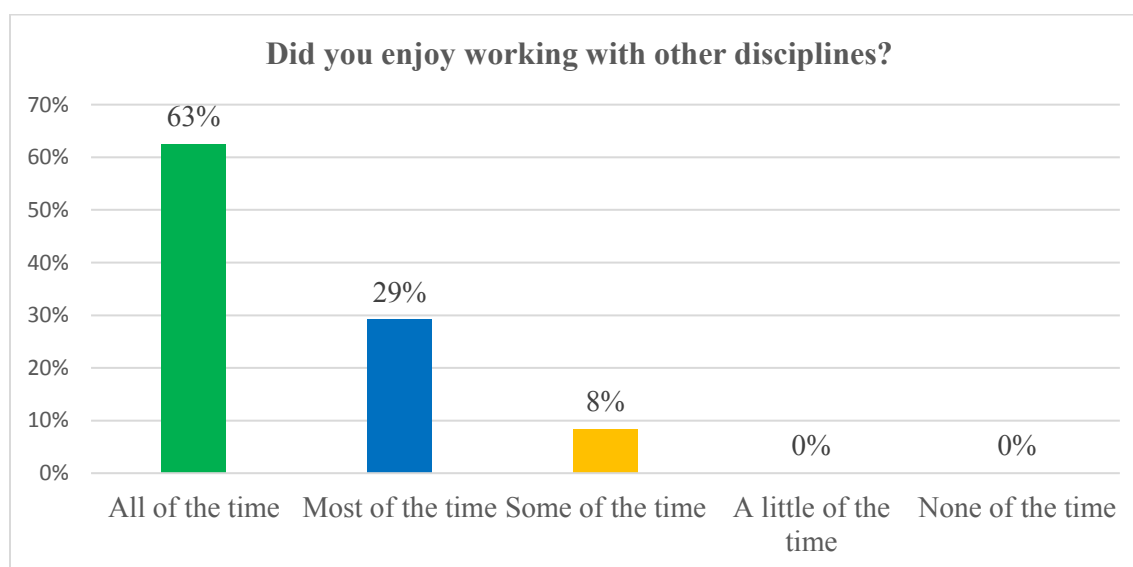


Figure 12. Working with Other Disciplines

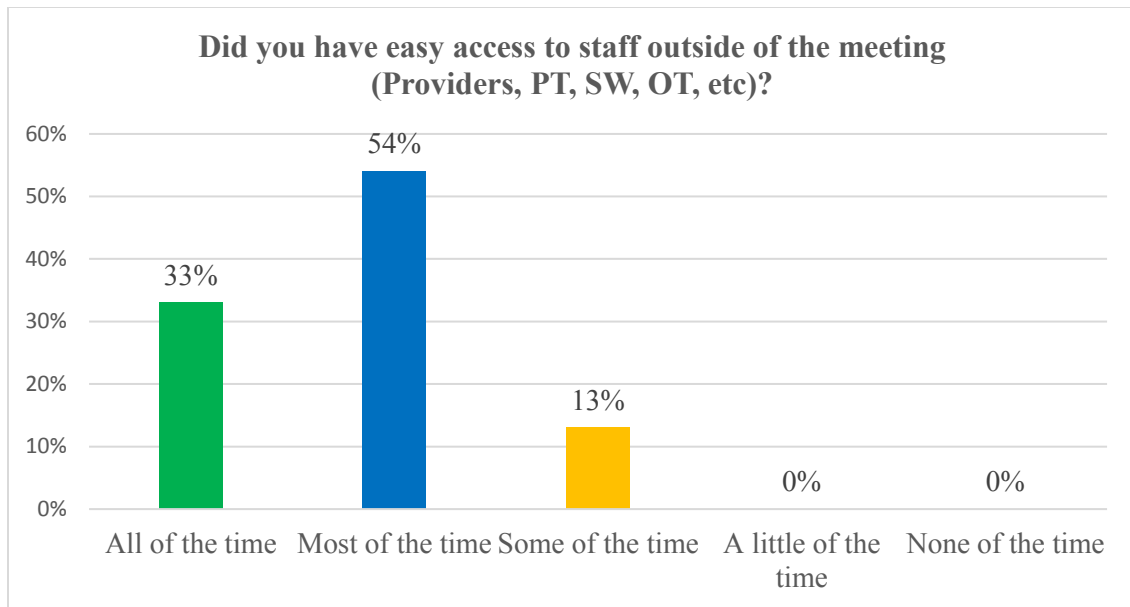


Figure 13. Access to Staff

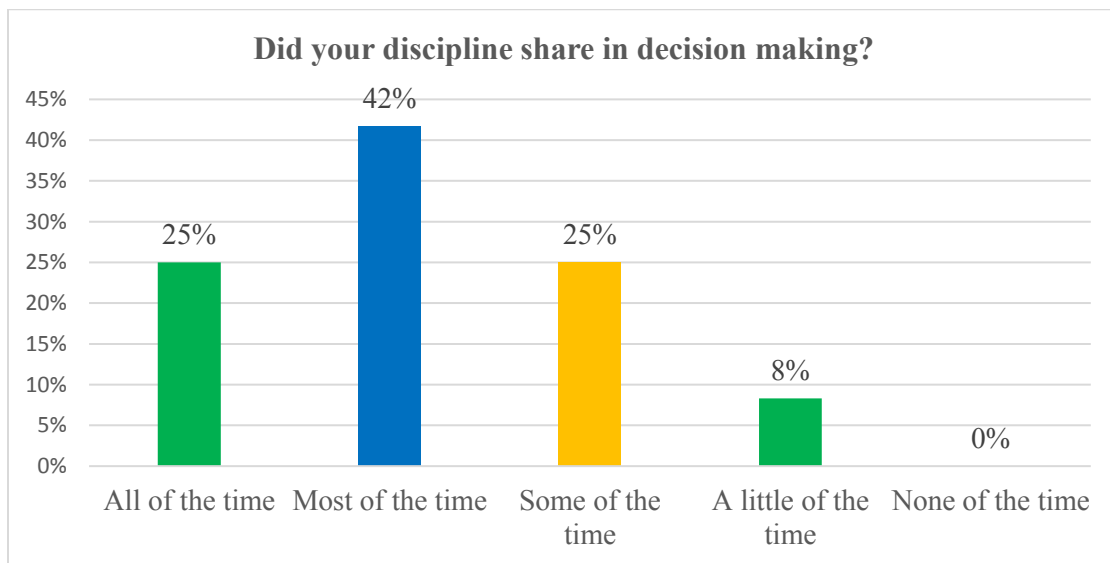


Figure 14. Sharing Decision Making

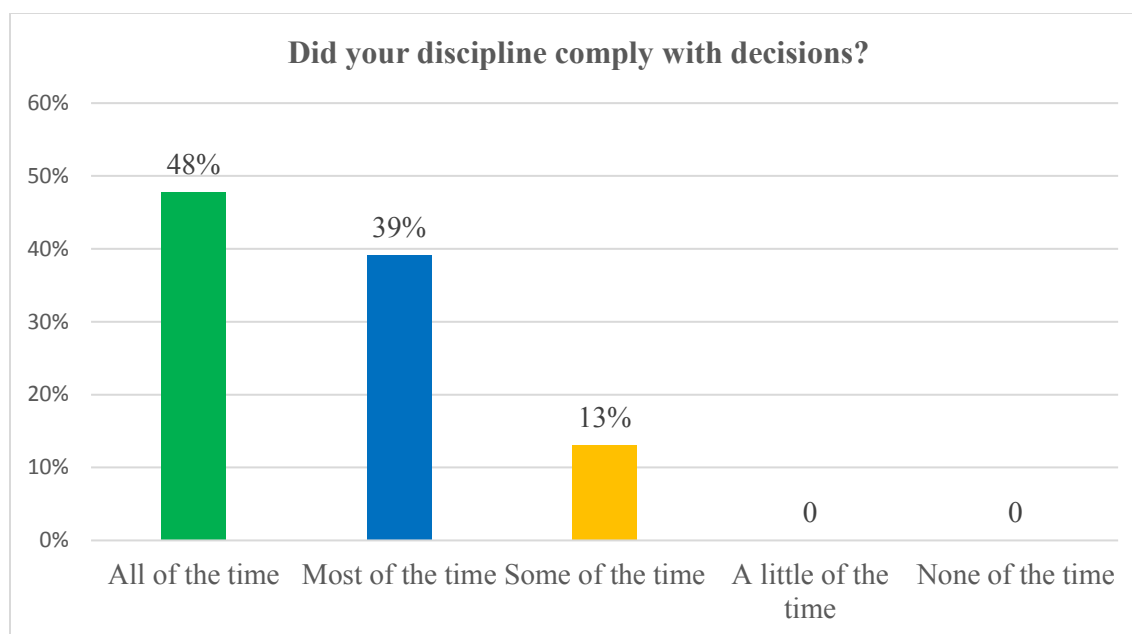


Figure 15. Compliance with Decision

The next seven questions focused on communication. The first question participants were asked, *Did nurses, nurse practitioners, and doctors plan together before making decisions?* Four percent replied all of the time, 48% most of the time, 35% some of the time, and 13% a little of the time (see Figure 16). The next question asked, *Was there open communication between all disciplines in making decisions?* Seventeen percent replied all of the time, 58% most of the time, 17% some of the time and 8% a little of the time (see Figure 17). The next question asked, *Did you get relevant information on the status of patients from others when you needed it?* Twenty-one percent answered sometimes, 58% usually, and 21% always (see Figure 18). Next participants were asked, *Were there unnecessary delays in relaying information regarding patient care to you?* Thirty-three percent of the participants replied never, 58% sometimes, 4% usually and 4% always (see Figure 19). The next question asked, *Did*

other disciplines call you in a timely manner related to patient care information when needed? Forty-two percent responded sometimes, 54% usually, and 4% always (see Figure 20). The final question asked, *How often did you feel information exchanged during IDT rounds resulted in a benefit to the patient's health, well-being or outcomes?* Eight percent answered never, 38% sometimes, 25% usually, 29% always (see Figure 21).

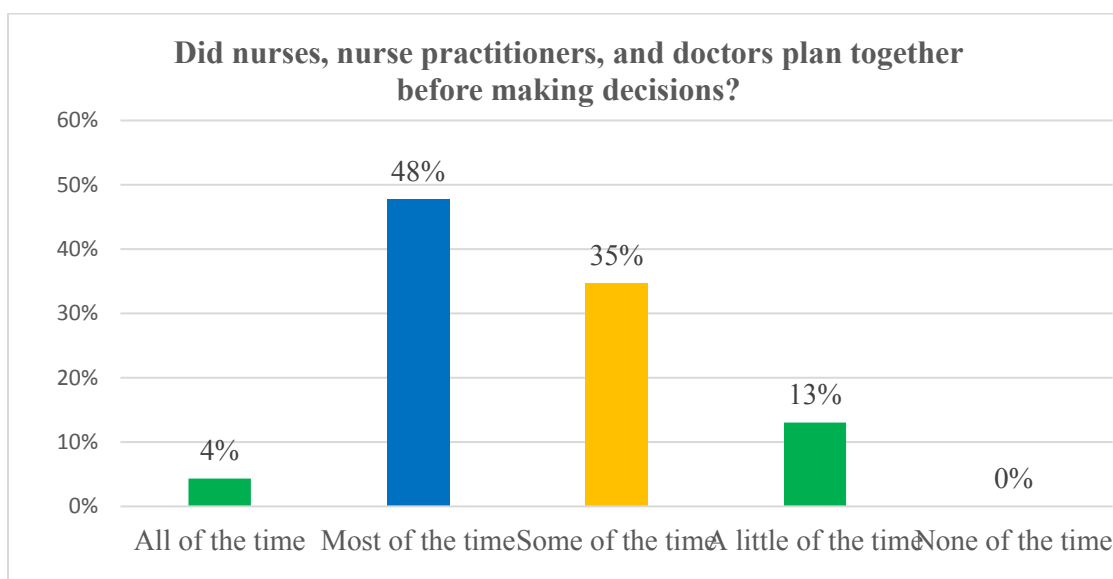


Figure 16. Planning Before Making Decisions

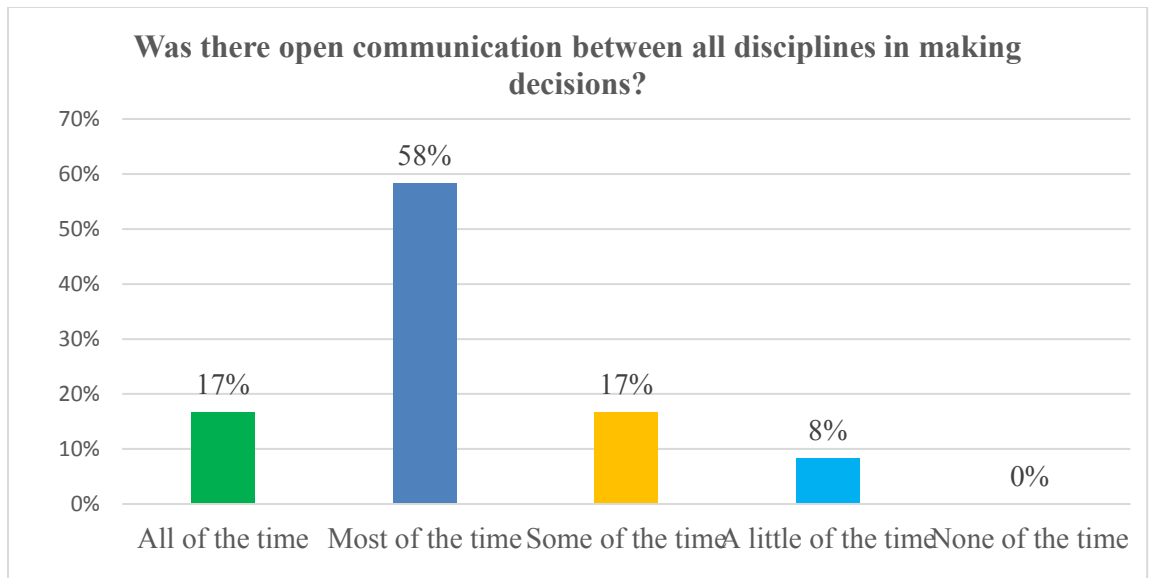


Figure 17. Communication Between Disciplines

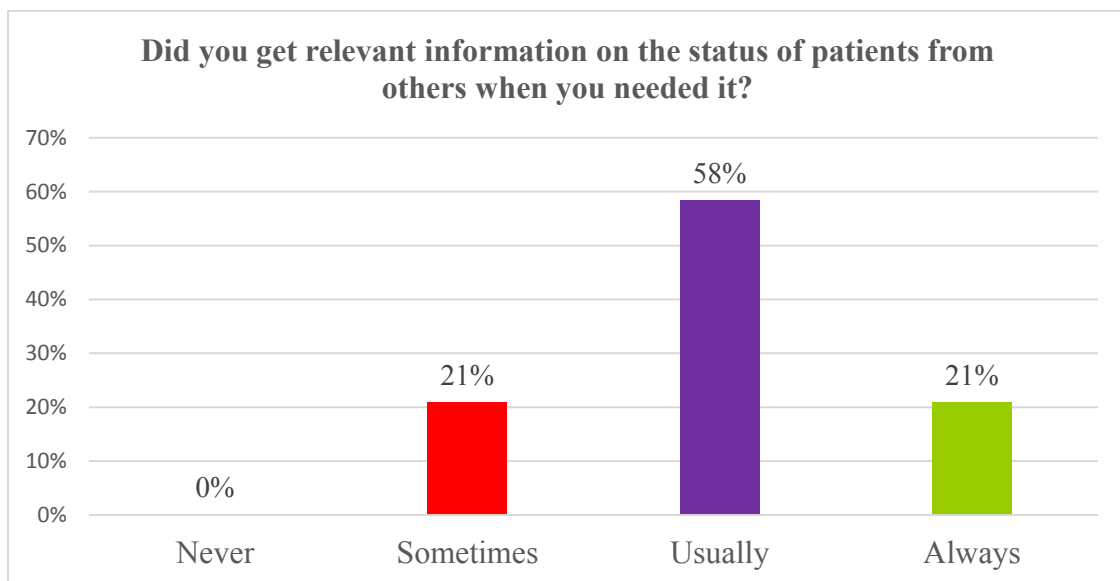


Figure 18. Relevant Information

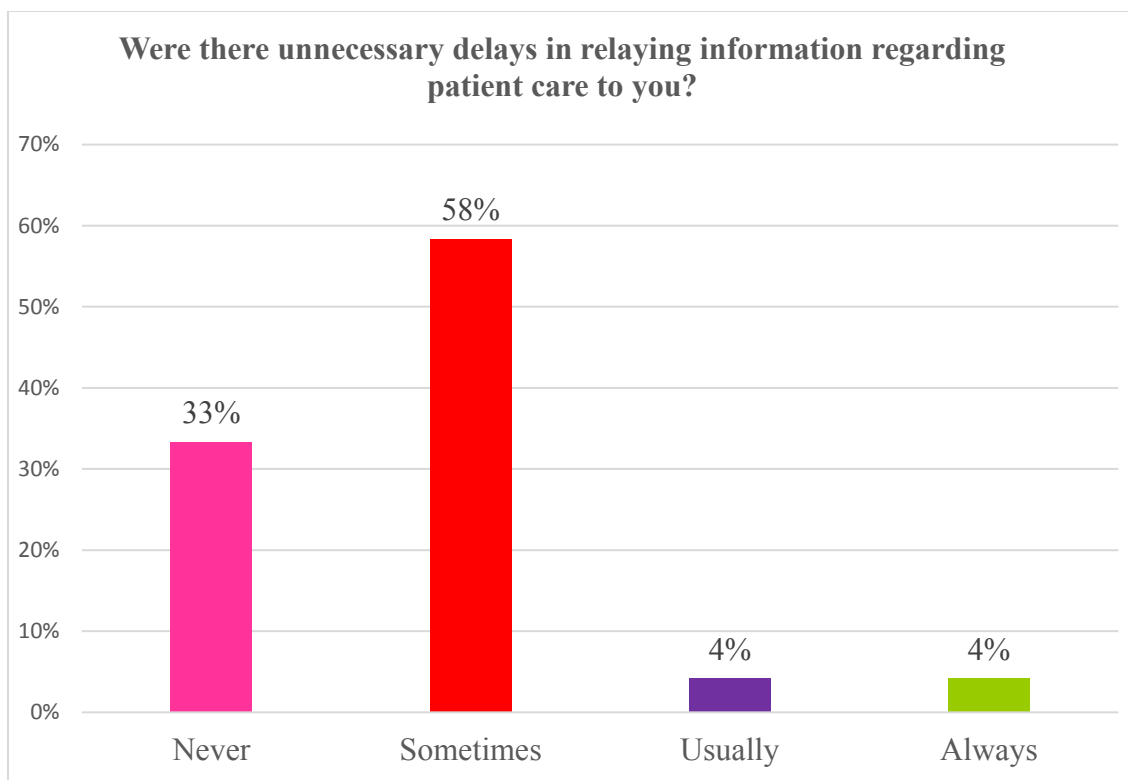


Figure 19. Unnecessary Delays

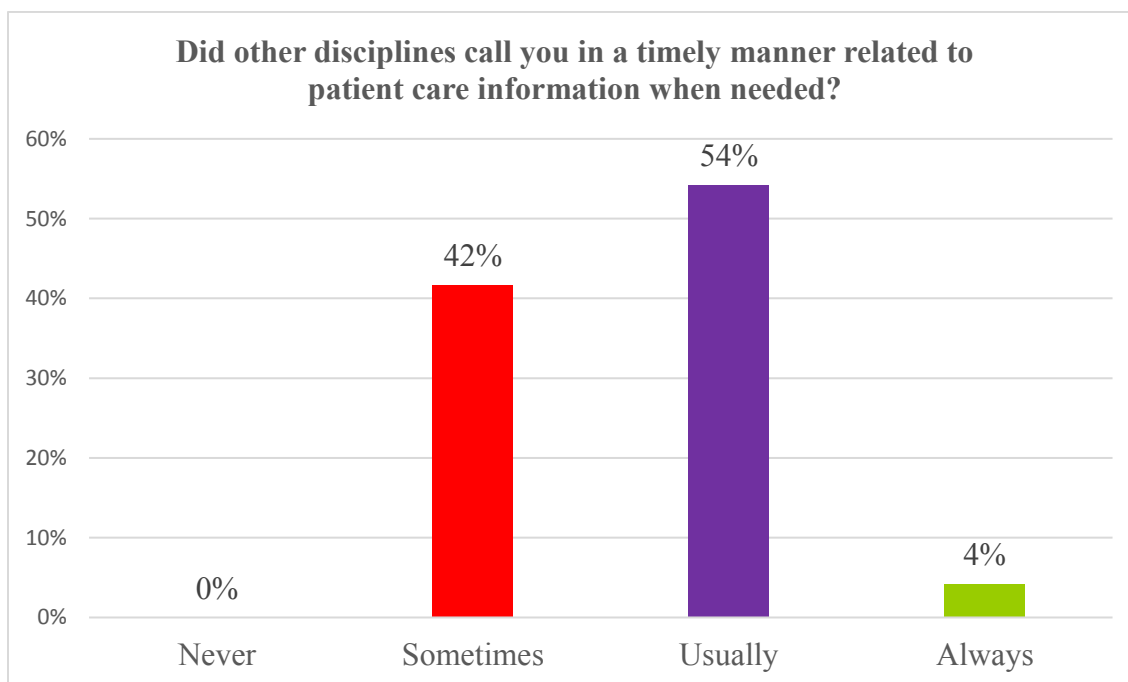


Figure 20. Timely Exchange of Information

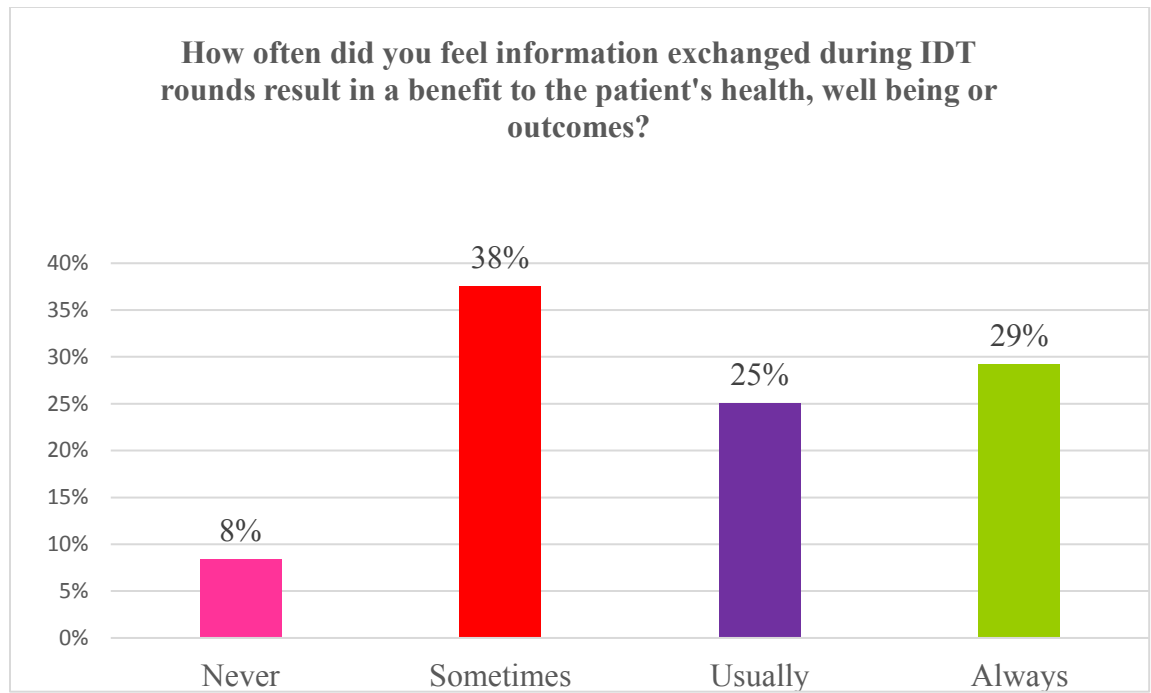


Figure 21. Benefit of IDT

SECTION IX

Discussion

Interpretation of Findings/Discussion

The Hospitalist Red team was the only team to have an increased LOS during the pilot. Hospitalist teams generally admit more complex patients with multiple comorbidities. During the pilot nine patients on the Hospitalist Red team had a LOS greater than 10 days with the longest being 43 days. This lengthy inpatient stay represents an outlier and altered the mean LOS for this team. All other teams showed a 0.2-0.4 decrease in the total LOS during November and December.

Although Blue 1 and Hospitalist Blue had a significant reduction in ABDOC during the pilot, in the month immediately following the conclusion of daily IDT the ABDOC doubled for two of the teams. Perhaps the absence of daily IDT collaboration in a structured format altered the speed of ancillary consults and discharge planning resulting in delays when patients were medically stable.

Patients are often made aware of potential discharge early in the morning by interns or residents during the morning round prior to 08:00 a.m. only to be discharged hours later. Therefore, it was a surprise that daily collaboration among the disciplines did not improve the time lapse between time discharge order was written and actual discharge time. During the pilot the average time lapse was 2:23 between the discharge order and actual discharge. The purpose of the project focused on interdisciplinary collaboration, in an effort to allow stakeholders to plan for discharge 24 hours in advance to mitigate discharge delays. Since this did not consistently occur, the difference in time remained greater than two hours for three teams. It was also anticipated that patients

would report negative feedback related to the speed of discharge. Patient dissatisfaction related to speed of discharge was anticipated as a result of lengthy waits after patients were told they were medically stable for discharge. However, 50% of the patients surveyed reported satisfaction with the speed of discharge. Peak times for discharge at this organization generally occurs between 2:00 p.m. and 5:00 p.m., after the resident finishes lunch and post-conference. This practice is common in teaching facilities resulting in a decrease in patient flow and patient dissatisfaction. One-third of the patients discharged during the pilot were not assigned to a local primary care clinic. Therefore, these patients were unable to provide feedback related to the discharge process at the project site. It is unknown if the feedback from the remaining patients would support IDT as a strategy to improve patient satisfaction related to the discharge process.

Findings from the IDT survey revealed 8% reported receiving incomplete information all of the time, while 63% of the IDT participants believed the information received was accurate. Ongoing monitoring or weekly discussion conducted during the implementation phase would allow for timely feedback and modification to improve the process. Although 42% of the IDT participants reported sharing in the decision-making process most of the time, only 48% admitted to complying with IDT decisions all of the time. This was an unexpected response. Perhaps changes in the patient's health or lack of resources altered or delayed the established plan. Ancillary disciplines and nurses were observed to be more reserved in the initial weeks, but appeared to be more comfortable freely exchanging information later in the pilot.

Although IDT members reported open communication among the disciplines as favorable, physicians verbalized no significant changes in the collaborative process and

verbalized they would have responded the same to survey questions prior to daily IDT. Although improvement in multidisciplinary communication was noted during the pilot, providers remained unconvinced that significant data supported continuance of daily IDT as a best practice strategy to decrease LOS. Providers cited limited time and existing team structure as barriers to successful daily IDT. Continuing collaboration between team members will be necessary to find the right method for improving effective and efficient discharge planning (Ryan et al., 2017).

The findings from this project mirror existing research. Although interdisciplinary collaboration for discharge planning is essential to expedite the discharge process it has inconsistently influenced reductions in LOS. Outcomes in this project indicated that interdisciplinary collaboration decreased the LOS for those patients who were medically stable.

Recommendations

Recommendations for sustaining daily IDT begins with alignment of team structure to foster continuity of multidisciplinary collaboration. Adequate social work support and resources are essential to ensure discharge planning is initiated on admission. The lack of adequate weekend social work coverage, or presence in the emergency department delayed the initial social work screening and care coordination. This initial screening is used to identify additional consults and resources needed to ensure quality care after discharge. Targeted social work assessments should be explored to manage the increasing workload and promote efficiency. Completing the initial assessment when the patient presents to the emergency department could help identify barriers and essential consults needed. Continued development on standard work practices and delineation of

roles and responsibilities between social workers and nurse case managers may prevent omissions or duplication of work.

Establishing a method to exchange updated information or pending results outside of IDT would facilitate a collaborative approach to share in decision making. Since 42% of the IDT members reported that information could be shared in a more-timely fashion, a pocket guide with telephone numbers of the multidisciplinary team members and departments might foster ongoing communication and timely exchange of information in addition to daily meetings. Development of an interdisciplinary progress note documenting a brief assessment and findings might provide a method to communicate recommendations or changes to the established plan of care discussed during IDT.

Daily IDT, although efficient, omits an essential team member, the patient. The patient is an integral part of care coordination and discharge planning (Canary & Wilkins, 2017). Bedside interdisciplinary rounding is the ideal solution to promote patient engagement into the discharge plan. This patient-centered strategy fosters transparency and effective communication between the family and medical team (Terra 2015). However, it was discouraged at this time due to structural challenges of medical teams, ancillary teams, nursing assignments by geographical location, and time restraints. Daily IDT facilitates discussion of the plan of care among various disciplines. However, it fails to incorporate the patient's ideas or feelings related to the established plan of care unless the nurse advocates for the patient's concerns to the IDT. Moving the discussion to the bedside would promote inclusion for the patient and family members during the initial planning phase. This collaborative strategy is an opportunity to solicit feedback, provide patient education, foster autonomy, and help implement strategies to promote adherence.

Disadvantages of implementing bedside rounding would include associated cost to obtain and train existing or additional medical and ancillary staff and acquiring mobile technology to support this endeavor.

Other recommendations for sustainability of an improved discharge process include implementing discharge pathways and checklists to ensure patient education is done prior to discharge. Feedback from ancillary disciplines support realignment by team instead of units to mirror the physician and social work team structure. This might promote continuity of the interdisciplinary collaborative process.

Limitations

A major limitation of this DNP project involved frequent leadership changes within the organization at the time of implementation. Organizational support was challenging due to frequent leadership changes and may have been a significant factor influencing the outcome of this project. These changes delayed the project implementation timeline as well as hindered a successful sustainment plan. The director of an organization is a leader charged with championing a vision. The director at this organization was promoted to a regional position and transitioned shortly after the DNP project was identified. The chief of nursing, a DNP graduate, practice partner, and champion for this project, retired in October 2017 prior to implementation. The interim deputy chief of staff was detailed to the VAMC from another location and quickly became a champion due to existing research related to interprofessional collaboration. The process improvement coordinator was then detailed to the chief nurse position. Her ability to recognize the value in this project was essential to obtain approval for a trip to another VAMC to observe their interdisciplinary collaboration and the discharge process.

After many formal and informal meetings, the interim director approved this daily IDT pilot. Prior knowledge and articulation of existing barriers and benefits of efficient discharge planning was key to garnering support. The initial resistance from stakeholders was overcome by the interim director's and interim deputy chief of staff's experience with multidisciplinary discharge planning. Both had experience in organizations where discharge planning was conducted using an interdisciplinary collaborative model.

Sustaining the daily IDT process for greater than six months to account for anticipated fluctuations in occupancy related a seasonally high and low census might result in improving trends in each outcome measure. Although the daily IDT pilot has concluded, weekly IDT continues to collaborate to improve the discharge process. As leadership stabilizes, patient satisfaction and cost-effective outcomes will become the focus of the VAMC.

Leaders are influential and act as champions to promote change, and foster a culture of accountability and process improvement. Vacancies among the executive leadership team including the director, chief nurse, and deputy chief of staff during this project altered the chain of command for decision making resulting in implementation delays, decreased accountability, budgetary restraints, and successful sustainment plans for existing process improvement projects. Additional meetings were arranged to solicit support from the interim director and interim deputy chief of staff. After obtaining approval for this project, both the interim director and interim deputy chief of staff transitioned to other career opportunities and the organizational support for this project began to diminish.

Implications for Practice

This DNP project involved improving the current discharge planning process using an interdisciplinary approach. External resources, leadership strategies, and evidence-based best practices were solicited from other VAMCs. The implementation of daily IDT was a best practice strategy to facilitate interdisciplinary discharge planning and care coordination. During an informal discussion after the survey was completed, physicians reported no change in communication prior to or post intervention, while all other disciplines verbalized increased collaboration and exchange of accurate information resulting in positive patient outcomes.

Daily IDT allowed all disciplines to interact and establish or enhance existing professional relationships. Discussions occurring during IDT provided additional knowledge related to available resources, benefits, or services offered to veterans. Recommendations offered by physical therapy, occupational therapy, nursing, social work, and utilization management facilitated the development of a comprehensive discharge plan that incorporated assessment findings and available resources. The organization is currently exploring additional structural changes of the IDTs and soliciting national support from other VAMCs.

Conclusion

Evidence-based research supports interdisciplinary collaboration for care coordination and effective discharge planning. Substantial research has been done to validate interdisciplinary communication as a best practice to improve the discharge process and patient outcomes. However, there is a lack of consensus related to the design of an effective and efficient strategy to achieve the desired outcomes. Additional

research is needed to identify effective strategies, screening tools, and discharge planning team models to achieve the desired results.

This DNP project implemented a collaborative discharge planning process that began on admission to promote early identification of barriers that could delay discharge. Establishing an anticipated discharge date during IDT allowed other team members to complete task, referrals, patient education, and arrange transportation prior to discharge. Interdisciplinary collaboration was effective in helping decrease LOS for three teams except Hospitalist Red, and decrease ABDOC for Blue 1 and Hospitalist Blue teams. Although IDT did not sustain past the initial pilot phase, 92% of the participants surveyed believed the information exchanged during IDT positively impacted patient outcomes.

Next steps might include developing a patient centered model that fosters patient and family participation in the discharge planning process. Acquisition of evidence-based screening tools for discharge decision support would help identify high risk patients on admission. This project accomplished its goal of designing a collaborative model to ensure efficient discharge planning begins on admission. Collaboration of interprofessional teams, early identification of discharge barriers, and establishing a comprehensive discharge planning will benefit all stakeholders and promote positive patient outcomes.

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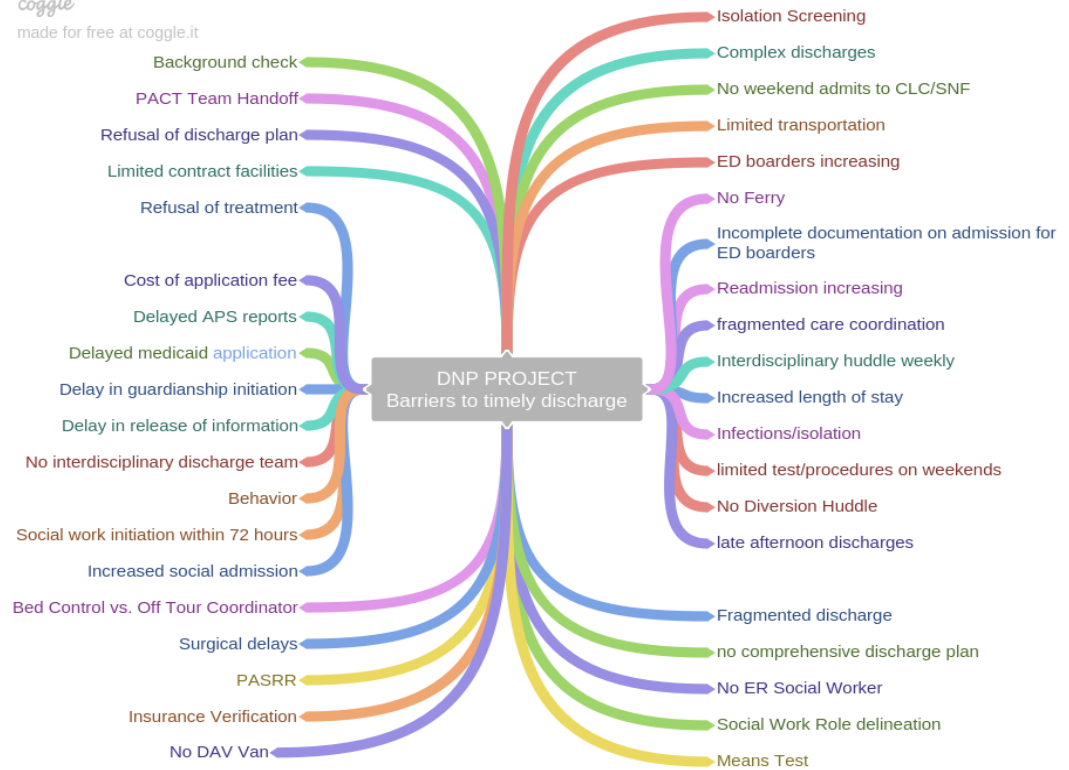
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Appendix A

Barriers to Timely Discharge

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Appendix B

Perception of Interdisciplinary Communication Survey

Discipline: Physical Therapy Speech Therapy Social Worker Occupational Therapy
 Case Manager Staff Nurse Provider Utilization
 Management

COMMUNICATION	All of the time	Most of the time	Some of the time	A little of the time	None of the time
1. Did you receive information from the IDT that was less complete than you would have liked?					
2. Did you feel uncertain about the accuracy of information you received from other disciplines?					
3. Did you enjoy working with the other disciplines?					
4. Did you have easy access to staff outside of the meeting (providers, PT, SW, OT...etc)					
Collaboration					
5. Did your discipline share in decision making?					
6. Did your discipline comply with decisions?					
7. Did nurses (or NP) and doctors plan together before making decisions?					
8. Was there open communication between all disciplines in making decisions?					
General Perception	Never	Sometimes	Usually	Always	
1. Did you get the relevant information on the status of patients from others when you needed it?					
2. Were there unnecessary delays in relaying information regarding patient care to you?					
3. Did other disciplines call you in a timely manner related to patient care information when needed?					

*This survey will be distributed among the participants of the daily interdisciplinary team meeting as well as other disciplines that are not involved in the pilot.