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Essential Collaborations Among Case Managers and Providers Regarding Discharge Processes

by

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

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Abstract

Communication is vital between case managers and providers when patients need care coordination post-discharge. This includes but is not limited to facilitating home health services, ordering durable medical equipment, sending referrals to rehabilitation facilities, and sponsorship for uninsured or underinsured patients. This gives case managers the opportunity to educate providers on the discharge needs they ordered for their patients. The collaboration between case managers and providers allows for timely discharge planning and providing patients and their families with accurate information regarding their discharge needs.

Keywords: case managers, discharge processes, collaboration, communication, patients

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Problem Recognition

Discharge planning for a patient began on admission to the hospital setting. Case managers completed an admission assessment which indicates a patient's current living situation, support system, insurance information, and if any active services and resources were being used. This information was vital as it gave the case manager a picture of what the patient had on admission and what resources the patient needed or resumed at discharge. The case manager would then inform the provider team of the findings when collaborating on discharge plans during daily rounds. Unfortunately, this initial collaboration did not always take place causing discharges to be delayed and resulting in discharge needs not being met.

Identified Need

There was a significant knowledge deficit between providers who placed orders for discharge needs for the patients and the processes that case managers completed when coordinating the discharge needs. Common examples included coordinating home health services, durable medical equipment, transfers to outside facilities for rehabilitation, and sponsorships for services when patients are uninsured or underinsured. Sometimes the discharge needs requested could not be coordinated due to staffing at home health agencies, medical equipment not available or being on back order, outside facilities not having bed availability, and the inability to sponsor some needs depending upon the costs of items that needed to be sponsored. Often providers did not know of this, thus misleading patients that discharge needs would be met without issue. Providers and their teams needed a tangible resource along with an initial orientation to the processes case managers carry out when coordinating discharge needs to limit such confusion. "Nurses and physicians unanimously linked effective collaboration to better patient outcomes" (Boev et al., 2022, p. 6).

Problem Statement

The lack of collaboration between providers and case managers about discharge planning resulted in frustration between patients, case managers, and providers, delayed discharges, and unmet discharge needs.

Literature Review

In 2022, Boev et al. completed a qualitative research study that explored the effects of collaboration between nurses and physicians in intensive care units. Boev et al. (2022) conducted in-depth interviews that were digitally recorded and transcribed followed by a thematic analysis and comparison using ATLAS. There were four physicians and six nurses interviewed from four different hospitals using a qualitative descriptive design. This was completed over 4 months. After each interview, data analysis was completed, and validity was established by Lincoln and Guba's Trustworthiness criteria. It was found that collaboration between nurses and physicians not only improved patient outcomes but was also associated with increased job satisfaction (Boev et al., 2022). The nurses echoed how much they valued the respect given to their roles, and physicians stressed the importance of the relationships they developed (Boev et al., 2022). The small sample size was the main limitation of this study, and it is unknown if these results would prove valid with a larger sample size.

Ibrahim et al. (2022) addressed how multi-disciplinary teams focused on discharging patients can not only prevent delayed discharges but could overcome other discharge barriers as well. The multi-disciplinary team included hospitalists, case managers, social workers, hospital finance representatives, and patient representatives. The weekly meetings were facilitated by hospital physicians and any patient-related discharge barriers were addressed on all general medicine wards (Ibrahim et al., 2022). Ibrahim et al. (2022) completed a retrospective observational study on all the delayed discharges in the general medicine wards from August 1, 2019, through December 31, 2019, and again during the same time frame in 2020. Ibrahim et al. (2022) collected data from the electronic medical record including demographics, principal diagnosis, discharge destination, and length of stay. Changes were calculated using descriptive statistics before and after the study (Ibrahim et al., 2022). Ibrahim et al. (2022) dispersed an anonymous survey using the Likert scale of strongly disagree to strongly agree, to the multi-disciplinary team to evaluate perceptions and the impact made on patient outcomes and team satisfaction. This was a voluntary survey and 31 out of the 34 participants responded. Ninety percent of the team acknowledged the improved communication and sense of support. The length of stay was decreased from 15.45 days to 9.04 days and 30-day readmission rates were not increased (Ibrahim et al., 2022).

Limitations of this study included it being held only at one center in the healthcare system. The development of a medical assessment unit was another hospital-wide initiative being implemented at the same time as this team was being created. Finally, with COVID-19 placing a huge focus on bed availability, it is hard to eliminate that this may have assisted with the speed and importance of hospital discharges.

Ju (2022) emphasized the importance of interprofessional collaboration with other members of the healthcare team via consultation and referral processes to improve care coordination in patients with chronic diseases. Ju's literature review revealed complex health conditions and social risk factors that patients have, placing them in a more vulnerable position to inadequate care coordination due to a lack of communication between the primary providers and those in specialty care (2022). Ju (2022) accentuated how the nurse practitioner (NP) can collaborate with the interprofessional team members as well as the patient to arrive at a successful plan of care. This would entail the NP incorporating the Care Coordination Model that would examine the coordination of care, and the key aspects of lucrative relationships between primary care, medical specialists, community service agencies, hospitals, and other facilities (Ju, 2022). Barriers identified were the time and administrative tasks involved in the coordination of care for complex patients (Ju, 2022). This was found to be due to the lack of adequate support staff and the breakdown of communication between the providers, patients, and their caregivers (Ju, 2022). Overcoming these barriers would require support staff for the NP to assist with referrals to community agencies, care coordination with specialty providers and consultations, and initiating relationships with area hospitals (Ju, 2022). Even overcoming these barriers, patients and providers are still limited by the reimbursement for care coordination and the arduous referral processes of a patient's health insurance network and coverage (Ju, 2022).

The role of the nurse case manager (NCM) was vital in the coordination of care for complex patients. Garnett et al. (2020) addressed this task with hematology cancer patients in the outpatient setting. Patients who have multiple complex health conditions, limited family and financial resources, and language and/or cultural challenges are the benefactors of NCMs (Garnett et al., 2020). A total of 1,790 hematology cancer patient records were reviewed from the electronic health record as a source of aggregate data from July 1 to December 31, 2018, by Garnett et al. (2020). These records were spread across 12 NCMs and each record was deidentified prior to review by a data analyst (Garnett et al., 2020).

This research took place at The Ohio State University Comprehensive Cancer Center-Arthur G. James Cancer Hospital and Richard J. Solove Research Institute (The James) where 41,889 patients were serviced in 2018. There were eight categories in the care coordination measurement framework which included supporting self-management tools, monitoring, following up and responding to change, facilitating transitions of care, communicating, linking to community resources, creating a proactive plan of care, assessing needs and goals, and aligning resources with patient and population needs (Garnett et al., 2020). The total volume of activities and outcomes in the categories were calculated as frequency and percentage.

Analysis of the care coordination activities proved favorable as 78% of potential emergency department visits and 45% of potential admissions or readmissions to the hospital were avoided (Garnett et al., 2020). Adding NCMs clearly contributed to better coordination of care. The three most performed care coordination activities documented were communicating and monitoring, following up, and responding to change (Garnett et al., 2020). Limitations included perspectives from patients and providers, a lack of understanding of the role of an NCM, and normalcy of NCM expectations. This could have expounded on the services, benefits, and barriers to the NCM role.

A qualitative study done by Hill et al. (2022) addressed the need for full-time support staff such as social workers and case managers to assist in facilitating home and community services (HCS) and resources from the emergency room setting. Examples of these services include hospice, physical and occupational therapy, and home health services. Eighteen physicians and nurses from emergency departments across the United States participated in this interviewer-administered semi-structured interview study design that used a traditional grounded theory approach (Hill et al., 2022). Emerging themes from the interviews were analyzed, with five major themes discovered (Hill et al., 2022). These included provider familiarity with local HCS, provider opinions on helpful and desired HCS, benefits HCS provided to patients, provider perspectives on barriers and facilitators to access HCS, and staff and procedures involved when referring patients to HCS (Hill et al., 2022). "Interviewees almost unanimously cited case management and social workers as being the greatest facilitators for linking patients to community services" (Hill et al., 2022, p. 7). Limitations of this study included the small participation size, race, and the knowledge base of providers who were primarily experts.

Holcomb et al. (2022), believed developing a training curriculum for healthcare workers could assist in improving the communication skills between the patients served and the community. Effective communication and listening skills are necessary between patients and healthcare workers to make informed decisions about health. This was especially true in patients with low health literacy and who lack the ability to understand specifically what their illness is. A 2-hour training was developed for health workers that focused on communication skills with patients (Holcomb et al., 2022). The goal was for the community health workers (CHW) to use active listening, teach-back, and action planning with the patients to assist in developing their knowledge about their health care (Holcomb et al., 2022).

The training was completed in three WebEx video sessions and an electronic survey was administered using Kirkpatrick's Model through a Likert-type scale (Holcomb et al., 2022). The first survey was sent 1 week prior to the training and the post-survey was sent after the last training session, and seven CHWs participated (Holcomb et al., 2022). The CHWs appreciated the tools used in the skills for active listening and teach-back lessons (Holcomb et al., 2022). However, the CHWs did not feel the action planning portion was directly related to improving the communication skills based on the health literacy of the patient population they were serving (Holcomb et al., 2022). Limitations were reflected in the small sample size, the need for updated resources, and the standardization of the resources needed by the patient population.

Kvael and Olsen (2022) saw the importance of patient participation in discharge planning from intermediate care to home. Inclusion of the patient's family, the patient's wishes, being present, and having final closure were the four main themes that remained the focus of discharge (Kvael & Olsen, 2022). Discharge planning included the interdisciplinary team and the case manager coming alongside the patient and their family to discuss the goal of care and any interventions during their hospital stay (Kvael & Olsen, 2022). Qualitative data was obtained from observing 14 family meetings and using the four habits model that was developed by Frankel and Stein (Kvael & Olsen, 2022). This model emphasized the communication skills of the team to stimulate patients to participate in their plan of care both while in the intermediate care setting and any services coordinated after discharge (Kvael & Olsen, 2022). The meetings were held between April and December 2017 and were audio recorded (Kvael & Olsen, 2022). The Braun and Clarke thematic analysis was used to analyze the notes from the meetings and qualitative notes were taken during the meeting (Kvael & Olsen, 2022).

Limitations in this study included the behavior of the participants being altered since the researcher was present which may create bias as well as the small sample size. "Finally, to successfully end the meeting and agree on a shared plan, it seemed crucial for CMs who held the decision-making power to attend the meetings" (Kvael & Olsen, 2022, p.2591).

The case manager's role seems even more critical when it comes to children with cancer. Care coordination, consistency, and continuity are vital both in the hospital setting as well as when being discharged to home with community resources (Martins et al., 2022). Martins et al. (2022), researched this while emphasizing the key worker/case manager role. M2rtins et al. (2022) highlighted the role as being complex and diverse. Martins et al. (2022) identified three pillars that made the key worker/case manager effective which were care coordination, expert knowledge, experience and expertise, and relationship.

A mixed-method case study evaluation was used to gather the data from 22 key workers, 103 parents, 85 professionals, and 10 children (Martins et al., 2022). Martins et al. (2022) concluded the role of the key worker was needed and if the position was not available, it was highly recommended to be factored into one's budget. While the data was favorable for creating and sustaining this role, Martins et al. (2022) only provided a snapshot of what key workers do and the role is ever-evolving. This case study was also limited in that its focus was on children with cancer. Ultimately, the knowledge and expertise of key workers and or case managers have had a positive impact on the patient's outcomes and continuity of care (Martins et al., 2022).

In 2022, Moosa and Khoja conducted a literature review on the impact of how a standardized discharge planning process with the inclusion of a structured multidisciplinary round (MDR) checklist can decrease the length of stay (LOS) for hospitalized patients. Much of the research was conducted by quasi-experimental studies, all of which decreased the length of stay by 10% in the first study, from 8 to 5 days in the second study, and from 4.5 days to 1.4 days in the third study (Moosa & Khoja, 2022).

A convenience sample of 30 patients was used for the project and a PowerPoint presentation was uploaded to the organization's Health Stream for nursing staff to complete education concerning the project followed by receipt of the MDR checklist (Moosa & Khoja, 2022). There were 19 nurses who participated in the study and the patient population consisted of patients with chest pain, hypertension, and diabetes (Moosa & Khoja, 2022). The LOS was analyzed with a t-test prior to and after the project. The LOS for this patient population was decreased from 2.66 to 1.26 days for a difference in LOS of 1.40 days (Moosa & Khoja, 2022). Limitations included a small sample size and length of study.

A study conducted by Cadel et al. (2022) looked into the team dynamics of their patient population experiencing delayed care transitions in an attempt to improve the continuity of care and reduce the length of stay in the hospital. Cadel et al. (2022) conducted a descriptive qualitative study with members of the healthcare team who experienced delayed discharges. Semi-structured interviews were done by telephone or teleconference from December 2019 through October 2020 with interviews being video recorded and responses noted (Cadel et al., 2022). Inductive and deductive analysis of the data was completed through directed content analysis of the 30 participants, where a purposive sampling strategy was used to recruit healthcare team members (Cadel et al., 2022).

Cadel et al. (2022) summed up major findings into three main categories. The first was collaboration with physicians makes a difference (Cadel et al., 2022). There needs to be an improvement in communication among all team members involved in the patient's care. The second category was leadership meaningfully engaging with frontline providers (Cadel et al., 2022). A dedicated leader who will serve as an advocate for the team and ensure all team members are treated equally. The last category was partnerships across sectors are critical (Cadel et al., 2022). This created improved partnerships across the different sectors of the community due to networking with leadership. Limitations of this study included only hospital-based providers and a small sample size to have been offered at two hospital networks.

Needs Assessment

PICOT Question

In general surgery patients who require discharge planning coordination, how would a collaboration toolkit that defines these specific processes, compare to the inaccurate information providers currently convey to patients regarding their discharge needs, improve provider knowledge about the care coordination necessary within 1 month?

Stakeholders

Case managers, providers, and patients are not just stakeholders, but also beneficiaries of this DNP project. The lack of communication between providers and case managers with regard to discharge planning has been identified. This was a daily challenge for case managers, as case managers were bombarded with questions regarding discharge needs and how much time it would take to arrange accordingly. This often happened when the attending providers were pressuring the case managers to discharge a patient home. Not only did this toolkit give providers and patients a sense of the timeframe it takes to coordinate resources, especially when more than one is required, but it also gave the provider some insight into how insurance coverage ties into resources available. Obviously, there was a vested interest in the application of this collaboration toolkit which yielded educated providers and successful coordination of discharge needs for patients.

SWOT Analysis

Strengths

The robustness of the collaboration toolkit educated providers and allowed them to defer answers to questions with patients until the case manager spoke with them. It eliminated miscommunication and gave patients accurate information about their needs at discharge. Case managers also reinforced and reiterated the information in the collaboration toolkit when providers had additional questions with regard to the discharge processes. This collaboration toolkit also had the potential to be presented when providers were orientated to the organization and provided patients with the education needed for discharge planning while emphasizing the importance of collaboration with case managers as they began their rotations.

Weaknesses

There were two weaknesses noted with the collaboration needed among providers and case managers. There were new residents assigned to each service monthly. This meant the new resident would need to be educated about the collaboration toolkit. This led to the next weakness that patients and their families became upset and frustrated because they were misinformed by the providers regarding the coordination of discharge needs.

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Opportunities

The aforementioned weakness regarding new residents was turned into an opportunity. When new residents were assigned each month to the different services, there was an opportunity to offer them the collaboration toolkit when initially oriented to the organization. There were also opportunities for patients with discharge needs that could not be met. Examples included, but were not limited to, durable medical equipment that was not in stock such as bariatric walkers, the inability to coordinate home health services such as a registered nurse for wound care, and physical and occupational therapy due to areas where patients live or staffing shortages with home health agencies. Finally, there continued to be the opportunity for increased collaboration between providers and case managers.

Threats

Case managers needed to feel trusted and supported in their roles. However, when there was constant miscommunication between providers, patients, and case managers, it created an atmosphere of confusion, frustration, and mistrust. "Collaboration is a major component of nursing job satisfaction and is related to patient outcomes" (Boev et al., 2022). This contributed to the organization now being vulnerable because frustrated employees sought out other employment opportunities. This created staffing shortages and delayed discharges because patients' discharge needs were not coordinated. It was a domino effect as the staffing shortages caused the organization to offer additional stipends to current staff to work on weekends. The organization also had to spend additional monies and offered generous contracts to traveling case managers to fill these employment vacancies.

Desired Outcomes

The desired outcome of this collaboration between providers and case managers yielded knowledgeable providers and successful coordination of services for patients prior to

discharge. The increase in the providers' knowledge of discharge processes for their patient population also allowed for better patient outcomes because the patient's discharge needs were met, hospital readmissions were prevented, and continuity of care post-discharge was provided. "In addition to creating a healthy work environment, units with effective nursephysician collaboration benefit patients" (Boev et al., 2022, p.2).

Team Selection

The team members for this DNP project were all employees of the organization's case management department. The practice partner was the DNP student's direct manager with an MSW, LCSW, LCAS, and CCM as credentials. The DNP student had two practice committee members. The first was one of the assistant directors of case management at the selected facility of implementation and holds the credentials of MSN, MBA, RN, and CCM. The second practice committee member was the trauma and acute care surgery team lead at the same facility and holds the credentials of MSN, AGACNP-BC, BSN, and CEN. The DNP student's DNP project chair will also serve as a committee member with the credentials of DNP, RN, and CNE.

Scope of Project

This project clearly illustrated and defined the specific processes case managers coordinate for patients prior to discharge. The processes defined in the collaboration toolkit consisted of the coordination of home health services to include physical and occupational therapies, the referral process required for patients to go to skilled facilities for additional rehabilitation prior to being discharged home, the ordering process and collaboration between the case managers and different vendors to obtain durable medical equipment for patients prior to discharge, and the coordination and forms to be completed for sponsorship of uninsured patients. The collaboration toolkit was given to all providers during the implementation process of this project and providers were educated on each process and time allotted for questions. This project did not guarantee all requested discharge needs would be met as a result of extenuating circumstances beyond the case manager's control. Examples that lead to needs not being met include but are not limited to, staffing shortages, medical equipment on back order, and insurance coverages that are not in network with the resources needed for the patient.

Cost/Benefit Analysis

There were only direct costs associated with this collaboration toolkit. Direct costs included office supplies which were paper, staples, and pens. These office supplies were the Staples brand and purchased from Staples Department Store. Costs were as follows: one ream of paper (\$8.29), stapler (\$10.69), staples (\$4.99), and black pens (60-count for \$10.29) for a total supply cost of \$34.26. Indirect costs included staff training of general surgery case managers, the committee membership team, and the providers. There was no financial obligation associated with the indirect costs. The total for direct and indirect costs was \$34.26. Potential revenue would be the prevention of delayed discharges and patients not staying an additional night in the hospital. According to the Noncovered Continued Stay – HINN 12 Form (S. White, personal communication, April 21, 2023) the current cost of an inpatient hospital stay is \$1,337.13 per day. This yielded a total of \$1,302.87 in revenue once direct costs were paid. This was evidence that implementation of the collaboration toolkit would be beneficial to the providers and a worthwhile investment for the organization as discharges are expected to no longer be delayed.

Goal, Objective, and Timeline

Goal

The goal of this DNP project was to yield knowledgeable providers regarding the discharge processes for their patients. The processes included coordinating home health services such as physical and occupational therapies and aides; ordering durable medical

equipment such as walkers, canes, bedside commodes, shower chairs, and hospital beds; transferring patients to outside facilities such as skilled nursing facilities, acute rehabilitation, or long-term acute care facilities; and sponsorship of resources such as those processes aforementioned as well as medications.

Objective and Timeline

The collaboration toolkit used to educate providers on the discharge processes was implemented over 1-month. Each week was dedicated to a specific task related to the application of the discharge processes that providers order for patients. The process began with a brief survey to ascertain current knowledge followed by discussion and implantation of the toolkit. The last 2 weeks were spent answering questions, obtaining feedback from providers, and a final survey to evaluate what they have learned. The weekly breakdown for implementation was:

- Week 1: The DNP project leader met with one provider team per day at their assigned rounding times; introduced the collaboration toolkit and obtained a brief survey of their current knowledge of discharge processes. The provider teams were general surgery, vascular, trauma, and upper and lower gastrointestinal.
- Week 2: The DNP project leader met with one provider team each day, and explained and implemented the collaboration toolkit. The collaboration toolkit discussed the aforementioned processes described in the goal that providers will need to collaborate with case managers and address the desired outcomes.
- Week 3: The DNP project leader met with one provider team daily during their rounds and answered any questions they had and received any feedback they provided regarding the collaboration toolkit.

• Week 4: The DNP project leader provided a final survey to each provider team to evaluate knowledge gained from the collaboration toolkit.

Theoretical Underpinnings

"The goal of nursing is to promote the system's stability by assessing the impact of stressors and helping the client adjust to the environment" (Eldridge, 2021, p. 20). Case managers were responsible for ensuring that the impact of a patient's stressors was minimal so that their adjustment period back to their previous environment was seamless. Betty Neuman developed a model in 1970 that addresses environmental stressors. Newman described three types of prevention that yielded interventions to assist patients in adjusting to their environment while working towards their goal of wellness on the healthcare continuum.

Zaccagnini and Pechacek (2021) reminded us that retaining wellness was the focus of Neuman's primary prevention. This was accomplished by truncating any risk factors and restricting any known or suspected stressors before the patient is exposed to them. An example of this primary prevention occurred with the uninsured patient who will need their medications or medical equipment sponsored and did not have any income to pay for them. This was a huge stressor for the uninsured patient. Collaboration should occur between the provider and the case manager regarding any discharge planning needed for patients prior to the providers discussing it with the patients. This stressor can be prevented if the provider informed the case manager of the need prior to speaking with the patient without full knowledge of the processes or resources available. Once the provider notified the case manager, the case manager had a conversation with the patient about the resources available and the process of getting their medications or medical equipment sponsored. This allowed the patient to be fully informed of what their options are and reduced or relieved any stress they would have encountered. The goal of Neuman's secondary prevention was to attain or acquire a new state of health after a patient has experienced a stressor (Zaccagnini and Pechacek, 2021). Case managers were involved in secondary prevention now more than ever due to the limited coverage of insurance plans or simply not being in-network with specific facilities. Surgical patients who required physical and occupational rehabilitation prior to going home had limitations based on their insurance plans. There were traditional Medicare beneficiaries who did not have to worry about authorizations for approval to facilities, Medicare Advantage Plans that may or may not have approved a patient's need for rehabilitation, and patients who only had Medicaid coverage. Unfortunately, Medicaid pays the least amount of revenue and facilities only have a limited number of Medicaid beds. In these instances, stressors to the patient and their families were heavy and they were not sure what was going to happen with their loved one getting back to their baseline and reaching their wellness goal.

Case managers intervened and had that initial collaboration with the providers regarding the patient's status so the right rehabilitation facility could be secured. Rehabilitation facilities included skilled nursing facilities, acute or inpatient rehabilitation facilities, and longterm acute care hospitals. Once case managers had that initial collaboration with the providers, they were effective when speaking with the families regarding the most appropriate level of care when it comes to rehabilitation and what insurance will and will not cover. Case managers were also able to speak about what will happen when rehabilitation is not an option. This scenario occurred with prisoners, sex offenders, substance abuse patients, and others. Case managers often pulled in complex case managers, social workers, or outside community resources to help.

A patient's goal was always to return to their baseline healthcare as much as possible. Once this goal was reached, the patient would have to maintain the wellness status they had

worked so hard to achieve. This describes Neuman's tertiary prevention state. This was the patient who had completed rehabilitation in the hospital setting or at a facility and was ready to be discharged home. The case manager by this time had at least two conversations with them regarding their discharge planning process. The primary conversation discussed the resources available in an effort to prevent stressors. The secondary prevention plan of action consisted of case management intervening once the stressor presented itself to the patient, and it was time to maintain the stability that was created. This prevention was illustrated with the patient going home with home health services at discharge from the hospital or a facility. They were both medically and physically cleared to discharge home safely and maintain what their baseline was prior to admission to the hospital. This prevention was also for the patient who was discharged home without any home health services and resumed their complete independence with activities of daily living. An example of this patient would be someone who was discharged with a colostomy or a surgical drain. They were independent prior to admission, were taught while inpatient how to care for their surgical drain or colostomy and were discharged with supplies and education to maintain their wellness goal on the healthcare continuum. "Neuman's systems model was first developed for use in nursing education, but it has found wide use in a variety of settings around the world" (Eldridge, 2021, p. 21).

Neuman's Systems Model supports this DNP project framework as it focuses on the interventions that case managers carry out in the discharge processes of each individual patient. While the discharge processes may be the same, each patient's case was still unique, and the environmental stressors differed from patient to patient. The success of the interventions or discharge processes carried out by case managers all pointed back to the essential conversations that providers had with case managers prior to speaking with their patients. Educating providers on what the discharge processes were not only decreased the stressors of the patients, but also

minimized the miscommunication between providers, patients, and case managers about what their specific discharge plan looked like. "Nursing administration, psychiatric nursing, case management, gerontological nursing, occupational health nursing, case management, gerontological nursing, occupational health nursing, and other specialties have benefited from applying the model in practice" (Zaccagnini & Pechacek, 2021, p. 21).

Work Planning

Project Management

Five phases in project management were carefully planned out for the process of this project to work and arrive at successful outcomes. The project leader's goal was to educate providers about the processes involved in discharge planning and help them understand how vital the conversation between providers and case managers was. In preparation for implementing the toolkit, the project leader designed two surveys. The initial survey evaluated their current knowledge and the second survey assessed what they had learned. This DNP project was managed and completed over 4 weeks.

The project leader began week 1 with the initial survey that evaluated their current knowledge of the four main discharge processes. The second week was spent meeting with each surgery team to explain and implement the collaboration toolkit. During week 3, the project leader rounded with each surgery team with a clear discussion around the discharge processes, addressed any questions and concerns, and received feedback and opportunities seen in the toolkit. The final week was spent evaluating the knowledge the providers have gained.

Direct and Indirect Costs

The direct costs consisted of office supplies and staff training. Office supplies included paper, staples, paper clips, pens, photocopier, and computer. Staff training was on a volunteer basis and was completed with the current case managers of the acute care surgery group and

members of the DNP Project Team. The training occurred during the monthly staff meeting prior to week 1 of implementation. Indirect costs were only incurred if additional rooms were needed for the presentation and implementation of the collaboration toolkit. The potential revenue was the result of delayed discharges that were prevented. The cost of supplies was \$71.22. The daily cost of room and board was \$1,337.13 per hour Noncovered Continued Stay – HINN 12 Form as mentioned previously. This yielded a revenue of \$1,302.87 each day a discharge was not delayed.

Evaluation Plan

The evaluation plan for this project was executed with a Qualtrics survey that addressed the four most common discharge processes that the providers order. The initial survey was given prior to the implementation of the collaboration toolkit. It identified their current knowledge as well as any gaps in their knowledge of the processes they order for discharge planning. The final Qualtrics survey evaluated what they had learned from the collaboration toolkit. Successful implementation of this collaboration toolkit yielded increased collaboration between providers and case managers and decreased frustration and distrust of patients with providers and case managers regarding their discharge plan.

Quality Improvement Methods Model

The aim of this project was to provide education via the use of a collaboration toolkit to providers around the discharge processes that they ordered for their patients. This collaboration toolkit was in written form and described the four most common processes that providers ordered that required case manager coordination. Improvement was measured with a Qualtrics survey prior to implementation that assessed the provider's current knowledge of the four processes and again after the education was provided. This was done over 30 days. This improved collaboration between case managers, providers, and patients and yielded accurate information regarding the discharge processes communicated to patients by providers.

The current process consists of providers speaking with patients after surgery and ensuring them that they will receive home health, specific durable medical equipment (DME), sponsorship for their discharge needs if uninsured, as well as specific facilities for rehabilitation. There were many factors that went into planning for these discharge needs that the providers were not aware of. Examples include home health unavailable in the area where the patient lives, specific DME being on back order, they may not qualify for sponsorship based on their income, and specific facilities may not have any beds available at the time of discharge. This caused frustration and distrust among the patients as they were assured by the provider that everything would work out when in reality, it did not. This landed case managers in difficult positions as they now must explain why a specific discharge need may not be possible after the provider has already assured them that it would be taken care of.

To effectively change this process, it was vital that providers be educated on the discharge processes that accompany their discharge orders. It began with speaking with the case manager prior to having any conversations with the patient about their discharge needs. As mentioned earlier, the length of stay was shown to decrease with a multidisciplinary round checklist in 2022 quasi-experimental studies done by Moosa and Khoja. There was also evidence of better patient outcomes when there was collaboration between nurses and physicians. This study was done in 2022 by Boev et al.

Project Implementation

Threats and Barriers

There were several barriers noted during the implementation of the project. While the project leader had specific days for each provider team, the project leader did not take into

consideration that all providers would not be there on that day. Several providers were either off, in surgery, or paged to see a critical patient. The project leader's goal was for 20 providers to participate but only 13 completed the pre-survey and 12 completed the post-survey. Other barriers included misplacing the QR code and the inability to create time to participate. The project leader also spent additional time sending emails with the QR code to providers that had not done the surveys after trying to catch them before, during, or after their rounds on multiple different days. Future implementation of this project should happen in a more organized setting during onboarding or an orientation setting. It could be presented in one session with the survey taken prior to the presentation of the Collaboration Toolkit and again after the presentation. Depending on the length of the session, additional discharge planning tasks could be added.

Monitoring of Implementation

Implementation of the project was filled with many emotions including anxiety, fear, and expectation. While the project leader had been to rounds many times with each provider team as a case manager, this meeting was different as the project leader was the leader and the providers were the stakeholders. The project leader provided specific insight into what case managers did when they ordered home health, medical equipment, rehabilitation placement, and sponsorship. The first week allowed the project leader to introduce the project, goals, and the four processes that were going to be covered. As the project leader talked through these things, the project leader's anxiety and fear diminished. Each provider team was receptive and amenable. The second week was filled with questions about the four processes described in the Collaboration Toolkit. Instantly, the providers began to think back to the initial survey questions and tried to remember if they answered them correctly. This was awesome to observe as some providers did not realize the coordination that was involved in discharge planning and that multiple conversations are had with patients, families, and the vendors involved. Feedback during the third week brought about positive comments and areas of opportunity. The providers agreed that the education was great and needed, however felt like it was more needed for new residents and providers, and that nursing should also be included as well. The providers also felt it should be done during the onboarding or orientation process with the organization. The final week was lighter where providers were ready to take the final survey to see what was learned. One provider team all took it together on personal phones. The project leader expressed appreciation for their participation and informed them that the project leader would follow up with them with overall results.

Project Closure

Closure of the project brought feelings of success in spite of the challenges experienced. The providers that participated were excited to complete the final survey and are looking forward to the results. The providers verbalized that they did acquire additional knowledge when it came to the processes that case managers facilitate with the Collaboration Toolkit. It allowed them to visualize what goes on behind the scenes once they place orders for discharge planning. A vital point that was recognized by providers was that just because they placed an order does not necessarily mean it will be completed. They realized that there are unforeseen circumstances such as staffing for home health needs, lack of supply for a piece of medical equipment, and insurance barriers both insured and uninsured. It brought the project leader great joy to spend time with the providers, educate them on processes, and see the "wow moments" the providers experienced. The project leader was most appreciative as it added to the positive relationships already established.

Interpretation of Data

The Collaboration Toolkit was presented to 20 surgical providers. Of the providers, 13 took the pre-survey and 12 took the post-survey. The survey consisted of 10 true or false

questions about the aforementioned discharge processes that the surgical providers order for patients as a part of discharge planning. Three questions showed a slight decrease in knowledge by one or two providers that changed their answers from their initial survey. Overall, the providers did well responding to the questions and had a basic knowledge of the discharge processes. However, their opportunity for growth was around skilled facility placement for patients needing rehabilitation.

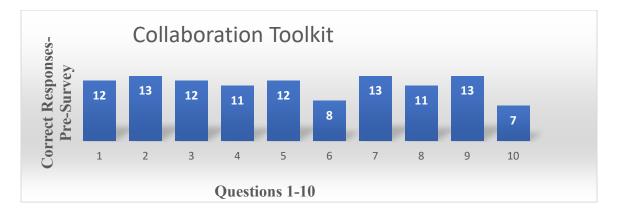
From the first week of implementation of the project, the providers appeared to be attentive, receptive, and looking forward to the toolkit being presented. The providers expressed how this education was needed across all provider services who were involved in the discharge planning of patients. It not only increased their knowledge but also provided insight into the discharge processes that case managers facilitate behind the scenes. The coordination of each of these processes in the toolkit was dependent upon where the patient lived, personal insurance carriers, services needed, medical equipment needed, and more. Hearing the project leader explain and read the steps outlined in the toolkit provided several "ah-hah moments" for the providers. It also re-emphasized how vital the collaboration between providers and case managers was.

It was during the third week of implementation that the project leader noticed the most change in the provider teams. The provider's thought processes were different because they now understood the importance of talking to case managers about any discharge planning needed before talking to the patient or even writing orders. The facility uses a process of secure chat where questions or comments regarding patient care can be routed to any member of the care team. Many of the providers shared with the project leader increased the use of secure chat to communicate with case managers prior to ordering discharge plan processes. The project leader also received feedback about possible education around other discharge processes like home infusion to include parenteral nutrition and intravenous antibiotics, out-ofpocket costs for patients for certain medications like Eliquis and Octreotide, and insurance plans.

The collaboration toolkit had a huge impact on providers and one of the project leader's goals was accomplished. There was an increase in communication between the providers and the case managers around discharge processes as evidenced by the increase in secure chat messages. Perhaps the biggest survey questions that split the providers equally were questions six and 10 (Figures 1 & 2).

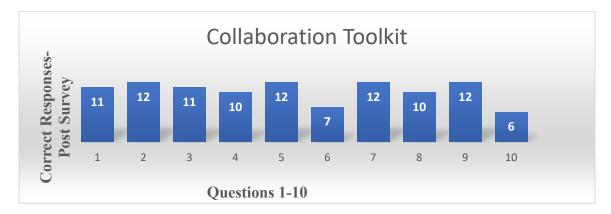
Figure 1

Pre-Survey Correct Responses





Post-Survey Correct Responses



Question six implied that the case management department did not contract with specific facilities for uninsured patients who needed rehab. The answer was false. If patients require rehab and are uninsured, case managers place a referral for Medicaid, especially if the patient is going to be long-term. If there are facilities that will contract with the facility for rehab placement while their Medicaid is pending, case managers will initiate a contract.

Question 10 stated that case managers do not need to send referrals to different skilled facilities and broaden the search for facilities to meet the requests of patients and families. This answer was also false. Case managers often broaden the search and send additional referrals to different skilled facilities to accommodate patients and families. Case managers also do this when beds are not offered at the existing facilities where referrals were initially sent out. This identified the opportunity that providers needed additional education around the process of skilled facility placement of patients for rehabilitation services.

The ability of the project to be sustained will require a different presentation of the discharge processes to providers. Successful preservation would be presenting this information during the orientation period of all providers to the organization by case managers. Currently, another case manager and the project leader present the case manager's role, responsibilities, and highlights of the different discharge processes to new surgical residents twice yearly. This has been a huge success and the residents as well as their attendings expressed their appreciation for the time and education given to them. Future measurements should include additional discharge processes that case managers perform to include those aforementioned in the feedback from providers during the third week of implementation.

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