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Occupational Therapy and Nursing Collaboration in Cardiac Surgery Recovery: A Function-Based Pilot Program

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Abstract

Background

Patients undergoing a coronary artery bypass graft (CABG) procedure typically adhere to sternal precautions that may limit participate in activities of daily living (ADL) and instrumental activities of daily living (IADL). Occupational therapy (OT) is well equipped to address functional needs yet they are not consistently included on the treatment team. Nursing remains a primary care provider and resource for this patient population but there remains little to no evidence on how OT led intervention for populations post-operative CABG impacts functional outcomes, discharge, and readmission.

Methods

A post-op functional program was developed and led by OT and nursing with an emphasis on self-care and functional mobility recovery post CABG. OT facilitated evaluation and intervention beginning on post-op day 1 until discharge, which was reinforced by nursing. Using a single cohort retrospective design, researchers examined patient length of stay, discharge location, and readmission rates compared to state and national benchmarks.

Results

104 patients post coronary artery bypass grafting (CABG) were included in the final analysis. All patients participated in occupational therapy (OT) treatment sessions with collaboration from nursing. This single cohort retrospective study showed a reduced length of stay comparable to state and national metrics. Furthermore, there was a lower 30-day hospital readmission rate comparable to state and national rates for similar cardiothoracic populations.

Discussion

Researcher's suggestion that daily OT interventions, reinforced by nursing, positively influenced patient functional and discharge outcomes following CABG surgery. These findings support the value of OT leading rehabilitative services in acute care settings for cardiothoracic patients. Future research to explore the broader application of OT led functional recovery programs in similar populations.

Keywords: activities of daily living**,** acute care, cardiac surgery, nursing, occupational therapy

Introduction and Background

Nearly half of all adults living in the United States have some type of cardiovascular disease (American Heart Association News, 2019), with heart disease remaining the leading cause of death and disability for the past 100 years (American Heart Association, 2024). Patients with coronary artery disease (CAD) are often required to undergo a coronary artery bypass grafting (CABG) in which blocked or narrowed arteries are bypassed with a piece of healthy blood vessel from somewhere else in the body to provide adequate blood flow to the heart and improve cardiac function (Johns Hopkins Medicine, 2024; Smith-Gabai & Holm, 2017). A traditional invasive CABG is often completed via median sternotomy with the sternum pulled apart to allow for easy access to the heart (Smith-Gabai & Holm, 2017). This approach results in patients typically adhering to strict sternal precautions that restrict pushing, pulling, and lifting, ultimately affecting the ability to participate in activities of daily living (ADL) (Tsai et al., 2023).

An isolated CABG procedure is the most common cardiac surgical procedure in North America with various post-surgery recovery protocols that are driven by nursing, exercise physiologists, physical therapy (PT), occupational therapy (OT) or a combination of professions (Dimeling et al., 2021; de Waard et al., 2021; Johny et al., 2017; LaPier et al., 2008; Ohbe et al., 2021; Rawan & Hussain, 2016; Stanford Medicine, 2024; Tsai et al., 2023). Nurses often provide much of the post-op education after CABG and note that it can be challenging to meet both the medical needs of a person after surgery in addition to trying to provide information and rehabilitation support (Bergvik et al., 2007). When caring for an open-heart patient, a nurse's attention is often divided into administering medications, monitoring vitals, discussing the

patient's status with doctors or other providers, explaining hospital procedures, ambulating a patient, and assisting with various other activities (Parvan et al., 2012). Early mobilization in the ICU has become increasingly important after CABG (da Costa Torres et al., 2016) and is often a shared responsibility between PT and nursing (Javed et al., 2023; Zanini et al., 2019). Physical therapy's involvement in post CABG care is well documented with an emphasis on a home exercise program (HEP) and progressive mobility to improve functional and respiratory outcomes in persons who underwent CABG surgery (Rawan & Hussain, 2016; Thomas & Morgan, 2023; University of Washington Medical Center, 2011). With post-op ambulation and exercises often a key focus after open-heart surgery, it is unclear when patients are receiving education on how to complete ADLs with post-op restrictions in place and which discipline is providing the education.

Even though OT is a vital member of the interdisciplinary acute care team (Yunus et al., 2022), occupational therapy practitioners (OTPs) are not always consulted to provide treatment interventions to patients who have undergone a CABG (Tsai et al., 2023). This has created a potential gap in care as OTPs are trained to understand how a patient's functional status is impacted when completing self-care tasks following a CABG (LaPier et al., 2008; Tsai et al., 2023). Without OT specific intervention, patients are potentially at risk of receiving education from a variety of sources not trained in ADL education. The ability to safely complete ADLs with an understanding of post-operative restrictions is crucial to prevent reduced activity tolerance, implement new healthy behaviors, and continue to engage in meaningful occupations (LaPier et al., 2008) after discharge.

Healthcare providers and patients alike often have difficulties recognizing the role of OT as treatment sessions in the hospital tend to resemble daily activities and confusion remains regarding the term ‘occupation’ (Yunus et al., 2022). OTPs working in the acute care setting have one of the most expansive coverage areas of practice from physical to mental health and bring a unique perspective to a patient's care to improve their overall outcomes (Yunus et al., 2022). In addition to providing skilled treatment interventions related to retraining in basic self-cares, OTPs can assist patients post CABG to successful return to occupations such as instrumental activities of daily living retraining (e.g., child rearing, care of pets, cleaning and laundry management, meal prep and clean up), health management (e.g., symptom and condition management, communication with the healthcare team, medication management, and physical activity), rest and sleep (e.g., routine building, preparation), and social participation (e.g., family participation and intimate partner relationships) (American Occupational Therapy Association, 2020).

This makes acute care OTPs well suited to provide individualized, holistic treatment interventions to patients following cardiothoracic surgery (Tsai et al., 2023) but only if consulted to do so. Recognizing a potential gap in care with patients who underwent a CABG procedure not consistently receiving OT services, an opportunity presented itself for OT and nursing to work collaboratively on a quality improvement project aimed at enhancing a cardiac surgery patient’s functional recovery. This project looked to establish site-specific protocols and post-op rehabilitative interventions for a novice open-heart program at the researchers affiliated hospital with occupational therapy involvement and lead. Researchers wanted to examine how OT led

interventions with nursing collaboration would compare to national and state benchmarks.

Aim

Researchers had two aims for this quality improvement project. First, to develop and examine if an occupational therapy and nursing collaborated post-operative rehabilitation pilot program for patients who underwent a CABG would influence hospital length of stay, discharge to home, and hospital readmission. Secondly, to identify and compare the pilot program outcomes to state to national benchmarks from Michigan's Society of Thoracic and Cardiovascular Surgeons (MSTCVS) and Society of Thoracic Surgery (STS).

Methodology

Study Design

Researchers used a single cohort retrospective chart review design with a quality improvement focus. The hospital institution's electronic medical record system was used to review patient outcomes who had undergone an isolated CABG procedure via median sternotomy from January 1 to December 31, 2023. A retrospective design was chosen for clinical research to assess a potential relationship between variables and outcomes when establishing a pilot program (Talari & Goyal, 2020). The researchers sought and received approval from the affiliated hospital's Institutional Review Board (IRB) (#2024-007).

Program Development and Implementation

The OT led and nursing collaborative post-op rehabilitation program was developed by an acute care occupational therapy practitioner in conjunction with an

intensive care unit (ICU) Clinical Nurse Specialist (CNS) and an outpatient cardiothoracic Nurse Practitioner (NP) for a novice open-heart program. The OTP examined the literature to learn more about OT's role in post-op intervention following a CABG procedure as well as benchmarked programs from other comparable acute care hospitals within the state of Michigan. When benchmarking regional hospital programs, it was noted that many post-CABG recovery programs were led by the physical therapy profession.

The CNS, NP, and ICU director all had previous experience working with this patient population. It was their experience that when PT was consulted after CABG, they would assess the patient and quickly sign off, often requesting an OT consultation to address self-care needs. Furthermore, researchers identified OT was not consistently consulted for patient's following a CABG despite OTs value in ADL and IADL retraining, strengthening through home exercise program (HEP), and functional mobility retraining (American Occupational Therapy Association, 2020). In an effort to maintain a positive working relationship with physical therapy colleagues at the researchers affiliated hospital, the primary researcher proposed an OT led post-operative program that would address self-care retraining, functional mobility retraining, and home exercise program instructions within their scope of practice (American Occupational Therapy Association, 2020).

Nursing and OT facilitated training opportunities for staff on safe mobilization techniques with patients recovering post-operatively. Safe patient handling techniques were provided on movement from bed to chair, ambulation within the patient room, and safe progression of ambulation outside of the hospital room. During the hands-on

training, nurses were trained on what hemodynamic, rhythm, and respiratory changes to look for that may require the collaborative nursing and therapy session to be stopped or rescheduled. For occupational therapy, a train the trainer model was utilized beginning with the primary researcher. The OTP provided treatment to isolated CABG patients in conjunction with nursing for the first five patients involved in the program. Next, additional OTPs were brought in to shadow during treatment interventions on various post-op days so each OTP would become independent in program delivery while also feeling confident training new OT staff on how to provide post-op education to CABG patients (Langevin, 2024).

After interdisciplinary communication between OT and nursing, the idea of a solely OT driven post-op rehabilitation program in conjunction with nursing was developed. Occupational therapy would begin seeing patients' on post-operative day one in the ICU in collaboration with nursing and would continue to see the patients daily until discharge for therapy interventions related to self-care, home exercise program, functional mobility, and safe transfers. If scheduling allowed, efforts were made to keep the patient with the same OTP for multiple visits for continuity of care and implementation of new knowledge and behaviors (Phillipi, 2010). Nursing would focus on medical management of the patient as well as ensure every CABG patient participated in functional mobility up to four times per day before and after OT sessions. Physical therapy would be consulted if a patient had a mobility need (i.e., balance deficit or need for new mobility device) or if referral for post-acute rehabilitation was warranted.

Every morning, the OTP and nurse who shared a patient post CABG on their caseload would communicate on the patient's current medical and functional status,

plans for any line, drain, or tube removal (i.e., chest tube, pacer wires, central line), pain and medication management, and functional mobility status. Depending on the patient's medical stability, the OT would aim to be in the patient's room no later than 10:00 am to begin evaluation or follow-up intervention sessions. The nurse would often be present for the entire OT session but there were times they would only be present for the functional mobility portion of the session. This process continued daily until the patient was medically stable and discharged from the hospital. If the patient transferred out of the ICU to the Progressive Care Unit, the OTP would still communicate daily with the nurse in charge of the patient's care.

Guidelines and Metrics

Researchers used STS Adult Cardiac Surgery Database (STS ACSD) and the Michigan Society of Thoracic and Cardiovascular Surgeons (MSTCVS) Quality Collaborative data and quality indicators to compare program pilot data regarding quality indicators. The STS ACSD is the world's premier clinical outcomes registry for adult cardiac surgery, providing comprehensive data on cardiac surgery outcomes since its launch in 1989 (STS, 2024). The database has accumulated over 10 million records of cardiac surgery procedures, with nearly 4,300 participating physicians, including surgeons and anesthesiologists. As a widely recognized resource, the STS serves as a crucial benchmark for assessing national trends and quality indicators in cardiac surgery. Additionally, STS provides data on all relevant metrics required for state credentialing while ensuring that healthcare institutions meet the standards necessary for state-level accreditation. The MSTCVS Quality Collaborative is a multidisciplinary network of healthcare professionals committed to improving the care of adult cardiac

and general thoracic surgery patients in Michigan (MSTCVS, n.d.). MSTCVS uses regional and national data to promote optimal processes of care, improve outcomes, and implement quality improvement initiatives based on best practices in cardiothoracic surgery.

The metrics of length of stay, 30-day readmissions, and discharge to home were selected, as they are key indicators of recovery, hospital efficiency, and patient outcomes in cardiac surgery. These measures are commonly used in quality assessments by national and state organizations like STS and MSTCVS.

- Postoperative Length of stay (LOS) reflects recovery speed and hospital resource use, with shorter stays indicating effective rehabilitation.
- 30-day readmissions are a measure of post-surgical complications, with lower rates suggesting better recovery and discharge planning.
- Discharge to home indicates a patient's functional independence and recovery, with higher rates showing successful management of daily activities without further rehabilitation.

The researchers selected these metrics as they are meaningful, clinically relevant, and widely used, making them ideal for assessing the impact of the OT-led pilot program compared to national and state benchmarks.

Setting

The program was implemented within a 13-bed general medical-surgical intensive care unit located at level two trauma center in the Midwest. The occupational therapy department had a total of six full-time occupational therapists, seven part-time occupational therapists, and eight per-diem occupational therapists. Initially, only full-

time practitioners were trained to deliver treatment interventions to patients recovering from a CABG procedure, but as the program expanded part-time and per-diem occupational therapy staff were included in the service delivery.

Participants

Researchers used the institution electronic medical record to identify patients who underwent a cardiothoracic procedure in 2023. Inclusion criteria included adults who underwent an elective or emergent isolated CABG procedure via median sternotomy from January 1 through December 31, 2023. Exclusion criteria included 34 patients who had low volume STS procedure categories such as aortic valve replacement, mitral valve replacement, mitral valve repair, and combination valve with CABG procedures. All patient information was de-identified and stored within an password protected electronic platform approved by the hospital institution.

Outcome Measure

At the conclusion of every occupational therapy session, practitioners administered the Activity Measure for Post-Acute Care (AM-PAC) “6 Clicks” Daily Activity Inpatient Short Form. This standardized outcome tool is a reliable and valid function-based assessment for measuring a patient's ability to complete self-care tasks that includes feeding, toileting, grooming, upper body dressing, lower body dressing, and bathing (Jette et al., 2014). Scores range from 6 to 24 with patients who score less than a 19 having a higher risk for hospital readmission regardless of discharge destination (Arnold et al., 2021).

Data Collection and Analysis

For every patient, quality indicator data was collected by the institution's Cardiovascular Quality Coordinator whom reported the data to STS and MSTCVS quarterly. Additionally, researchers collected and analyzed patient's electronic medical record (EMR) information including 1) date of admission, 2) date of discharge, 3) procedure date, 4) type of procedure, 5) hospital length of stay to discharge (e.g., number of days), 6) discharge location (e.g., home, skilled facility), and 7) readmission status within 30 days. Additionally, researchers collected and analyzed rehabilitation specific information specific to: 1) total number of OT sessions a patient received, 2) AM-PAC "6-Clicks" Daily Activity Inpatient Short Form raw score at initial (e.g., evaluation) and last OT session (e.g., discharge), 3) number of PT sessions (if service was initiated. Researchers used descriptive and inferential statistics when analyzing the data. All categorical data was reviewed for accuracy against information provided in the EMR by the secondary researchers.

Results

A total of 138 patients underwent cardiothoracic surgery. Of these, 104 patients met the inclusion criteria for isolated CABG. Among the sample, 83 CABG procedures were elective and 21 were urgent. All patients were undergoing their first cardiovascular surgery, with 77.9% receiving a three-vessel bypass, 19.2% a two-vessel bypass, and 2.9% a one-vessel bypass. The most common comorbidities were hypertension (92.3%), diabetes (41.4%), cerebrovascular disease (16.4%), and active smoking (15.4%).

Of the 104 participants, 84 were male (80.7%) and 20 females (19.3%). Participants were on average 67 years old with an age range of 41-85 years. The

majority of the participants were Caucasian (91) with three indicating they were Asian, five Black, and four patients noted other races. Insurance types included Medicare and Medicaid (70 patients), commercial insurance (30 patients), Military or Veteran Affairs (3 patients), and HMO (1 patient).

Occupational Therapy (OT) Session and Outcome

All patients received OT evaluation on post-operative day one. Before and after patient OT sessions, coordination with staff nursing to ensure patient safety and readiness for therapy was completed**.** Patients received an average of 108 minutes of OT treatment during their inpatient stay, with an average of 4.6 total OT sessions. Retraining of self-cares interventions were primarily concentrated between postoperative days 3 and 4, which patients engaged in self-care retraining activities and education averaging 18 minutes (Table 1). Therapeutic activity interventions such as progression of functional mobility, car transfer, toilet and tub transfers and ascending/descending stairs averaged 20.1 minutes per session. Therapeutic exercise interventions were completed with 30% of the participants for an average of 9.0 minutes starting on post-operative day two. 17% of the sample received physical therapy congruent with occupational therapy services.

Table 1

Occupational Therapy Session Interventions

POD	Session Details and Intervention
1	• Evaluation and plan of care development • Education on OT role and discharge planning • Education on sternal precautions • Functional ambulation within hospital room
2	• Self-care retaining activities (e.g., grooming sink side seated or standing). • Reinforce sternal precautions education • Instruction of home exercise program (e.g., trunk rotation and lateral leans, shoulder flexion/extension, shoulder abduction/adduction, shoulder elevation / depression). • Mobility schedule established with nursing (e.g., sitting in bedside chair for all meals)
3	• Self-care retraining activities (e.g., upper and lower body dressing) • Progress in home exercise program • Caregiver training for discharge readiness (e.g., equipment) • Progression in functional mobility (e.g., toilet transfer)
4	• Self-care retraining activities (e.g., full body dressing, bathing) • Education on energy conservation with use of sternal precautions with IADLs (e.g., meal preparation, laundry, cleaning) • Progression in functional mobility (e.g., room and hallway ambulation) • Progression and teach back in home exercise program • Consult PT if a patient's mobility status has not improved.
5-7	• Education on home discharge planning needs and address questions on caregiving for various IADL activities • Progression in functional mobility (e.g., 300 feet in order to discharge home, stairs, car transfer, shower transfer)

Note. POD = post-operative day

Overall, patients demonstrated improvement in their AM-PAC "6-Clicks" Daily Activity Inpatient scores, with an average increase of 62.7% from evaluation to

discharge timeframe. The mean score rose from 12.1 at the initial evaluation to 19.7 at discharge, showing a statistically significant improvement (p = 0.00; Table 2)

Table 2

Initial and Discharge AM-PAC "6 Clicks" Daily Activity Inpatient Scores

Score	**Mean**	**Std. Deviation**
Evaluation (Initial)	12.1	2.8
Discharge (Last)	19.7	2.3

Quality Indicator Comparisons

To assess the effectiveness of the functional recovery program, its outcomes were compared to national and state quality benchmarks, specifically the STS ACSD and MSTCVS datasets. Three key quality indicators were analyzed. The first indicator was postoperative length of stay (LOS). The program demonstrated a favorable average LOS of 5.7 days, with a median of 5 days. This was shorter than the STS national average of 7.0 days and the MSTCVS state average of 7.5 days.

The second indicator was discharge disposition. The pilot program achieved a discharge-to-home rate of 94.2%, exceeding the STS national rate of 85.5% and the MSTCVS state rate of 83.3%. Of the 104 patients, five required a discharge to a post-acute rehabilitation facility for further skilled therapy services. These patients had a longer average LOS of 10 days and demonstrated modest improvements in AM-PAC "6-Clicks" Daily Activity Inpatient scores, increasing from 11.2 at initial evaluation to 14.4 at discharge. In comparison, patients discharged to home had higher discharge AM-PAC "6-Click" Daily Activity Inpatient score average of 19.9 (p= 0.004). Researchers

found that an AM-PAC 6-Clicks score of ≤ 15 may serve as a useful predictor for the need for discharge to a rehabilitation facility (Table 6).

The third indicator was the 30-day readmission rate. The pilot program recorded a readmission rate of 4.9% among the sample, which was lower than the STS national rate of 9.4% and the MSTCVS state rate of 9.6%. The five readmissions observed during the pilot program timeframe were attributed to medical needs specific to bradycardia (2 cases) and pulmonary complications (3 cases). None of these readmissions were related to deficiencies in self-care performance.

Discussion

The results of the OT-led program demonstrated promising outcomes in key quality indicators. Collectively, the participants that received the OT-led post-operative program achieved results that are comparable to, or exceed, national and state averages when measuring postoperative length of stay, discharge to home rates, and 30-day readmission rate. From these findings, the researchers suggest integration of an OT-led post-operative recovery program to support patient functional and discharge outcomes after a planned or emergent CABG surgery. The researcher's findings from this program align with existing research that highlight the benefits of OT-led recovery programs (Hobbs, n.d.; Tsai et al., 2023).

This pilot program for patients who received a CABG suggests that occupation based post-op interventions led by acute care OTPs has the capacity to reduce overall length of stay in the acute care setting and increase the likelihood of discharge to home without being readmitted to the hospital within 30 days of discharge. Although there was an outlined progression of function-based activities for OTPs to educate their patients on beginning POD 1, each OTP was encouraged to deliver individualized and holistic

care in order to provide a just right challenge during daily treatment sessions. This allowed for opportunities to slow or accelerate the education provided to best meet the needs of each patient as an individual.

An observation noted by the primary researcher as well as other OTPs providing post-op education was that most, if not all, CABG patient's mobility was considered impaired POD #1 through approximately POD #4 due to pain, the number of lines attached to a patient, and lack of sleep. Beginning around POD #4, patients typically had less lines, drains, and tubes, which correlated with an improvement in their mobility status. As a result of this observation, the OTPs in this study would typically wait until after POD #4 to assess if there was a need for a PT consult.

Postoperative Length of Stay

The pilot program's average postoperative length of stay of 5.65 days is significantly shorter than the STS national average of 7 days and the MSTCVS state average of 7.5 days. This is consistent with the current evidence that suggestions early mobilization and activity may support early transfer to non-intensive care units and discharge from hospital (da Costa Torres et al., 2016; Ramos Dos Santos et al., 2017). Several studies have highlighted that comprehensive rehabilitation programs, including OT, can reduce LOS by enhancing mobility, improving respiratory function, and facilitating early discharge planning (Ramos Dos Santos et al., 2017). The current study's results provide insights that OT-led interventions positively influence patient LOS are comparable to state and national length of stay data.

Discharge to Home

One of the most notable outcomes of the single cohort retrospective study was the discharge-to-home rate of 94.2%, which exceeds the STS national rate of 85.5% and the MSTCVS state rate of 83.3%. This finding highlights the potential of OT-led programming to reduce the need for post-discharge rehabilitation by promoting functional recovery early in the hospital stay. Ramos Dos Santos and colleagues (2017) noted improved functional status post-surgery, particularly in terms of daily activity engagement, is a key determinant of patients' ability to return home rather than requiring a rehabilitation facility. The results from this study suggest that OT-led functional treatment interventions beginning as early as POD #1 could help reduce the reliance on rehabilitation centers by enhancing patients' independence sooner in the recovery process. Furthermore, the difference in AM-PAC "6-Click" Daily Activity scores between patients discharged home (19.9) versus those discharged to rehab (14.4) aligns with literature indicating that patients with higher functional recovery scores are more likely to return home (Arnold et al., 2021).

Readmission Rates

The OT-led post-CABG recovery program demonstrated a lower 30-day readmission rate (4.9%) compared to the STS national (9.4%) and MSTCVS state (9.6%) rates. This is a noteworthy finding, as readmission is a key indicator of post-surgical complications and overall recovery success. Lower readmission rates have been associated with comprehensive, multidisciplinary approaches to post-operative care, including the involvement of OT for early treatment interventions (Roberts et al., 2020). By focusing on functional recovery and providing patients with the tools to manage their activities of daily living (ADLs) post-surgery, OT led programming may

reduce the likelihood of complications such as falls, respiratory issues, and mobility limitations, all of which contribute to readmissions (Lockwood & Porter, 2022).

Limitations

There were several limitations noted by the researchers. First, the small single cohort sample size and one procedure type limits generalizing to other institutions or post-operative cardiothoracic recovery programs. Secondly, there could be selection bias and medical acuity considerations for the sample referred from the cardiothoracic service at the time of this pilot program. Third, the results of the program are OT centric and did not measure feasibility from other health professionals involved in the patient's care, such as the nursing staff and administration. Lastly, as this was a pilot program that started along with the onset of a new cardiac surgery program, there was no prior functional data available to compare functional impact or considerations such as patient support system, general health metrics, and functional outcomes. Furthermore, the researchers recognize the comparison in quality indicator data was not proportional, but descriptively was a relevant benchmark to consider.

Future Considerations

To support generalizing the outcomes, a longitudinal examination of the program's impact with a larger sample would be advantageous to fully understand the impact of the OT interventions on patient outcomes. Furthermore, investigation into the specific components of the OT-led program (i.e., the intensity of therapy, time of day therapy occurred, and the use of specific interventions) could help refine and optimize recovery protocols for this patient population. Additionally, future research could explore

the long-term outcomes of OT interventions including the impact on quality of life, patient satisfaction, and long-term functional independence.

Lastly, exploring nursing's perception of the collaboration between occupational therapy and nursing professionals would provide insights into program strengths as well as areas for improvement or future programming.

Implications for Occupational Therapy

In the literature, there continues to be limited evidence about OTs involvement with patients who have undergone cardiothoracic surgery, specifically as it relates to the impact of OT services on ADL participation within the acute care setting (Tsai et al., 2023). Many patients often experience a lack of confidence returning home following a CABG procedure as it relates to their ability to follow post-op instructions while simultaneously completing ADL and IADL tasks (Fix & Bokhour, 2012; Mai et al., 2020). Every patient in this quality improvement project, received OT services as early as post-operative day one with subsequent education and treatment sessions on retraining of ADL, IADL, and functional mobility based occupations. As a result, each patient experienced improvements in overall ADL participation as evidenced by an increase in AM-PAC 6-clicks scores of 62.7%.

This pilot program provides an example of OT being the lead provider in the post-operative rehabilitation care. It is suggested that OT practitioners take a lead within cardiac units to develop, implement, and refine post-operative recovery programs to ensure occupational engagement among patients having cardiothoracic procedures. With a greater OT presence in the post-cardiac recovery, OT services can be better understood and valued. The outcomes of this project provide objective data to support

OT having a positive impact on functional change as well as transition from hospital to home.

Conclusion

Patients undergoing cardiothoracic surgery in the form of CABG have post-op restrictions that hinder an individual's ability participate in daily occupations. Occupational therapy practitioners in acute care are equipped to provide a holistic treatment plans that aims to help patients regain and adapt during their recovery. Results of this quality improvement project provide a positive example of an OT-led evaluation and intervention efforts to aid the functional recovery of patients that underwent a CABG procedure. Skilled OT services should be included in post-operative care protocols across acute care cardiac surgery units.

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