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Step Squad Bundle in Older Adults with Multiple Myeloma Hospitalized for an Autologous Stem Cell Transplant

Nadya Panjwani
University of Texas at Arlington

Deborah Behan
University of Texas at Arlington

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Stem Cell Transplant

College of Nursing and Health Innovation, The University of Texas at Arlington

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Abstract

Background: Multiple Myeloma (MM) is a hematological malignancy with demographic disparities. MM is a debilitating cancer mainly affecting older adults, with 66% over the age of 70. Additionally, 33% of older patients with MM are frail with weakness, fatigue, slow gait, weight loss, and malnutrition.

PICOTS: The purpose of this Doctor of Nursing (DNP) scholarly project is to implement an evidence-based practice (EBP) change consisting of a Step Squad Bundle that will identify frailty in older patients with MM hospitalized for an Autologous Stem Cell Transplant (ASCT) to reduce morbidity and mortality and increase the chances of a quality of life.

Methods: Guided by the IOWA model, this project consisted of seven steps intended to identify frailty in hospitalized older adults with MM undergoing ASCT and improve their physical status by their hospital discharge. The Frail Scale was utilized as a screening tool for frailty on admission (pre-test) and discharge (post-test). The intervention was implementing a Step Squad Bundle, which includes appropriate referrals to physical and occupational therapy, referral to a nutritionist, verbal and written education on walking, and a walking diary as a resource tool to document walking time.

Results: 21 patients participated in the project. Results indicated no statistical difference in the pre-test and post-test Frail Scale scores, consistent with maintenance of baseline physical status even after hospitalization. These results were clinically significant because their baseline physical function even after undergoing aggressive chemotherapy and a stem cell transplant did not decrease.

Conclusion: The Step Squad Bundle project has the potential to facilitate the identification of frailty in older adults with MM undergoing ASCT and teach them to use tools to stay physically active in the hospital.

Step Squad Bundle in Older Adults with Multiple Myeloma Hospitalized for an Autologous Stem Cell Transplant

Multiple myeloma (MM) is the second most common hematological malignancy, in which there are a projected 35,370 new cases and 12,590 expected deaths from MM in 2023 in the United States (US) (American Cancer Society, 2018). MM is an incurable and debilitating cancer affecting predominantly older adults, with 66% of patients aged over 70 at diagnosis (Cook et al., 2020). Approximately 33% of older patients with MM are frail at diagnosis (Moller et al., 2021). Frailty is a geriatric disorder that includes unintended weight loss, fatigue, weakness, slow walking speed, and malnutrition (Rohrmann, 2020). The advanced age at diagnosis of MM, associated with osteolytic lesions, fracture risk, and chronic illnesses, has contributed to frailty (Moller et al., 2021). Thus, frail older adults with MM are excluded from participation in new clinical trials and receive fewer treatments (Cook et al., 2020). An autologous stem cell transplant (ASCT) following high-dose chemotherapy remains the cornerstone of standard therapy for MM (Rosko et al., 2019). Even so, people undergoing ASCT battle major symptoms, such as decreased performance status, profound exhaustion, and diminished quality of life (QOL) (Hacker et al., 2021).

In Texas, there will be an estimated 2,910 new cases of MM in 2023 (American Cancer Society, 2018). People 65 and older have high rates of chronic conditions, such as cancer, and tackling these medical needs is already a weighty burden on the state's budget and structure

(Adams et al., 2016). Chronic illnesses compound the chance of frailty, accounting for 75% of annual healthcare expenditures in Texas (Adams et al., 2016). In the study by Alvarez-Bustos et al. (2022), frailty was associated with higher hospital utilization and increased hospital admission costs at follow-up by 23.72% per year. Treating frailty can improve well-being and save costs in the long run.

Malnourished patients are more likely to become frail (Liang et al., 2021). According to research by Falvey et al. (2022), frail patients in the US had a higher rate of food insecurity at 16.3% compared to non-frail at 5.3% (Falvey et al., 2022). Texas has over 20% of older adults struggling with malnutrition (Texas Health and Human Services, 2023).

Frailty is related to an amplified risk of falls, injury, sedentariness, prolonged hospitalization, and even death (Rohrmann, 2020). Interestingly, 54.5% of older adults in Texas reported physical debility and only 23.6% of older Texans achieved regular physical activity (Texas Health and Human Services, 2023). On a local level, Harris County in Texas reports 15.1% of older adults to have independent living difficulties (Houston State of Health, 2023). In addition, 8.5% of older adults have self-care difficulty and may require assistance for feeding and toileting (Houston State of Health, 2023). Thus, older adults must remain physically active to prevent disability.

In a local oncology hospital in Texas that cares for MM patients receiving treatment with ASCT, frailty must be addressed to preserve QOL. In the local hospital there are 800 ASCTs done annually without assessing for frailty. Assessment of frailty will ensure that each patient qualifies and receives the optimal treatment while maintaining physical function. Therefore, this project aims to implement an EBP practice change consisting of a Step Squad Bundle, that will

identify frailty in older patients with MM hospitalized for an ASCT to hopefully, reduce

morbidity and mortality, and increase the chances of a QOL.

PICOTS

PICOTS is an abbreviation for population, intervention, comparison, outcome, time, and

setting, which is used to construct questions for evidence-based projects (Reavy, 2016). For this

project, the PICOTS are:

P = adults aged 60 years and older diagnosed with MM and hospitalized for an

autologous stem cell transplant

I= implementing a Step Squad Bundle which includes a screening tool to identify frailty

at admission, provide appropriate referrals to physical and occupational therapy, referral

to a nutritionist, provide education on walking, and provide a resource tool such as a

walking diary to track daily walking time

C= compared to the current practice of no screening tool, early referrals, education, or

resource

O= outcome is to increase assessment of frailty, increase early referrals to physical and

occupational therapy, increase early referral to a nutritionist, and increase walking

T= within eight weeks

S= at an inpatient stem cell transplant unit at an oncology hospital in Texas

STEP SQUAD BUNDLE IN OLDER ADULTS

Review of Literature

The PICOT question for this evidenced-based project is among older adults, ages 60 and over with MM and hospitalized for an ASCT, will executing a Step Squad Bundle (screening, referrals, education, and resources) compared to no current bundle to increase assessment of frailty, provide proper referrals, increase knowledge of walking, and improve active self-management with the use of resources over eight weeks, at an inpatient stem cell transplant unit at an oncology hospital in Texas?

Literature Search Strategies

The literature review included PubMed, CINAHL, Science Direct (Elsevier), and Cochrane Library databases. Key terms had variations of the words in PICOTS, including the population (older adults, geriatrics, seniors, and elderly); the diagnosis and treatment (multiple myeloma, myeloma, autologous stem cell transplant, hematological malignancy); the problem of frailty and debility; and the intervention (walking, exercise, physical activity, activity diary, nutrition). In addition, articles with multiple disciplines such as nursing, medicine, physical, and occupational therapy, were searched. The Boolean search operator included" "and"" and "or"" to increase and narrow the search. The initial search yielded over 130 articles. The elimination of the same articles and the inclusion/exclusion criteria were used to limit further and select the most relevant articles for examination.

Inclusion and Exclusion Criteria

The inclusion criteria included articles written within five years and written in English. Some sources outside of the five-year time frame were relevant and significant by Bergenthal et al. (2014), Defor et al. (2007), Duppert et al. (2002), and Fisher et al. (2016). The exclusion criteria eliminated articles written in a language other than English that did not allow open

access. After applying limitations, 16 relevant research articles were selected for evaluation. The chosen studies included systemic reviews (SR), randomized-control trials (RCT), nonrandomized control trials (NRCT), non-experimental studies, a cross-sectional study, and a prospective cohort study. The John Hopkins Nursing Evidenced-Based Practice Appraisal Tool (Upstate Medical University, 2022) evaluated the level of evidence and guided the evidence table (see Appendix A) for literature review on assessing frailty in older adults with multiple myeloma hospitalized for an autologous stem cell transplant. The Evidenced-based project approval letter by the selected institution is attached in Appendix B.

Synthesis of Evidence

The review of literature aims to identify existing research studies that focus on evidence-based interventions such as identification of frailty, early referrals to physical therapy, occupational therapy, and a nutritionist, education on walking, and appropriate resource tools such as a walking diary to minimize frailty for older adults with MM during an ASCT. The review of the literature revealed frailty and higher mortality in older adults with MM (Moller et al., 2021; Cook et al., 2020; Hacker et al., 2021). It is reported that frailty is mainly caused by age-related biological variations in MM patients (Moller et al., 2021). In addition, older adults with MM undergoing standard-of-care treatment such as ASCT deal with significant morbidity with several symptoms, such as severe exhaustion, insomnia, anxiety, and depression; decreased performance status; and lessened quality of life (QOL) (Hacker et al., 2021; Cook et al., 2020). Considering the marked frailty identified in older adults throughout this literature review, the importance of implementing a Step Squad Bundle focusing particularly on frailty in older adults with MM hospitalized for ASCT is emphasized.

Components of Step Squad Bundle

Step Squad Bundle includes the identification of frailty by a screening tool (Thompson et al., 2020), referral to specialists such as physical therapy (Bergenthal et al., 2014), occupational therapy (Hiraga et al., 2019), and a nutritionist (Liang et al., 2021), patient education on walking (Dubbert et al., 2002), and appropriate resource tools such as a walking diary (Hiraga et al., 2019; Okur et al., 2019) to reduce frailty in older adults with MM during an ASCT. Frailty includes a decline in physical function, causing dependency, susceptibility to infections, and a high risk of health decline, leading to increased morbidity and mortality (Cook et al., 2020). This evidence-based project focuses on frailty as a significant barrier to wellness and implementing evidence-based interventions to modify it.

Identification of Frailty

Frailty contributes to increased weakness and debility among older adults and correlates with high institutionalization and death risk (Cook et al., 2020; Falvey et al., 2022; Moller, et al., 2021). In aging adults, frailty scores detect prognostic groups, avoid harmful procedures, assess clinical trial eligibility, and personalize treatment (Moller et al., 2021). Frailty should be routinely examined among older adults, primarily due to the aggressive quality of the condition, where health decline is not always an unavoidable result (Thompson et al., 2020). As most clinical trials exclude frail older patients, those qualified are often younger and more robust than the average MM patient (Moller et al., 2021). Hence, frail groups have an increased risk of, undertreatment, unfavorable outcomes, and therapy withdrawal, which may lead to mortality and decreased QOL (Moller et al., 2021).

According to the International Conference of Frailty and Sarcopenia Research (ICFSR) task force, health providers should screen all older adults for frailty using a validated instrument (Dent et al., 2019). The FRAIL scale, a self-reported screening tool for frailty, is an easy-to-

administer tool, which has been identified as helpful for use in screening for frailty and has demonstrated a valid predictor for mortality (Thompson et al., 2020). The FRAIL scale includes five components: fatigue, muscle strength, ambulation, recent illness, and weight loss of 5% or more (Dent et al., 2019). Each FRAIL scale feature is scored zero through one, and scores vary from zero (best) to five (worst) (Thompson et al., 2020). After a patient's frailty evaluation, tailored programs to combat frailty can advance.

Referrals to Physical Therapy, Occupational Therapy, and a Nutritionist

To embrace reducing frailty in an older adult with MM undergoing ASCT, measures to consult specialists such physical therapist, occupational therapist, and a nutritionist should be underway to guide personalized therapy. Some characteristics of frailty are poor physical function, poor strength, and slow gait (Dent et al., 2019; Thompson et al., 2020), which specialist-led exercise interventions can remedy (Falvey et al., 2022; Koutoukidis et al., 2020). Among the established interventions to treat frailty in older adults, personalized and well-supervised exercise interventions under a physical or occupational therapist's direction have shown the potential to improve physical function (Falvey et al., 2022; Koutoukidis et al., 2020). Participation in a tailored exercise program appeared safe, enhanced muscle strength and cardiovascular health, and was associated with better overall clinical outcomes (Koutoukidis et al., 2020; Moller et al., 2021). Moreover, it is best practice to involve exercise consultants early.

Thompson et al. (2020) reported that being frail included unintentional weight loss of more than 5%, and malnutrition is closely related to frailty (Liang et al., 2021). Thus, measures to consult an expert nutritionist to provide a customized meal plan during the hospital admission could reduce frailty and muscle wasting (Liang et al., 2021). Specialized nutritional therapy, a high protein diet, supplements, and treatment of vitamin D deficiency are all fundamental aspects

to reversing the frailty of an aging adult (Liang et al., 2021). Therefore, a timely nutritional

consultation during hospital admission for older adults with MM undergoing ASCT is beneficial.

Education on Walking

Knowledge is power; thus, a practitioner must educate patients about the benefits of

walking, walking safety in the hospital, and the frailty modification techniques of the older adult

population with MM. Several recent studies have shown promise in improving motivation for

exercise through counseling and educating patients (Dubbert et al., 2002). As a result, motivated

older adults can have faster walking times and better outcomes after hospitalization (Fisher et al.,

2016). Simple provider contact can inspire elderly patients to walk for exercise (Dubbert et al.,

2002), and this popular activity is associated with major health benefits with the least risk for

injury (Navarrete-Villanueva et al., 2020). Walking positively influences patients undergoing a

stem cell transplant and significantly benefits patients who are less fit before the transplant

(DeFor et al., 2007). Educating patients on the causes of frailty and the wealth of benefits of

ambulation in the hospital through individual provider counseling can drastically improve their

physical fitness (Dubbert et al., 2002; Navarrete-Villanueva et al., 2020). Thus, increasing

knowledge on walking in the hospital through patient education can be valuable.

Walking/Activity Diary

A vital characteristic of frailty is slow gait speed (Thompson et al., 2020); Navarrete-

Villanueva et al., 2020). As frailty encompasses slow walking speed (Thompson et al., 2020),

walking in the hospital and documenting the amount of walking in an activity or a walking diary

is necessary to enable self-empowerment and achievement of activity goals (Hiraga et al., 2019;

Okur et al., 2019). The activity/walking diary to self-record daily walking time found that when

individual goals were set, and progress was recorded, accomplishments were increased, and

additional goals were created (Hiraga et al., 2019). Okur et al. (2019) report that the activity diary provides comprehensive information about physical activities in children with cerebral palsy and is a valid measure. Therefore, its motivational benefit in the older MM population is worth considering.

Frailty Assessments and Walking Interventions

Seven studies in the literature review centered on integrating the components of aerobic exercise, such as walking to enhance physical function in older patients with MM (Bergenthal et al., 2014; Duregon et al., 2019; Knips et al., 2019; Hacker et al., 2021; Nicol et al., 2023; Larsen et al., 2020; Koutoukidis et al., 2020). The types of articles were systematic reviews (Bergenthal et al., 2014; Knips et al., 2019; Nicol et al., 2023), randomized control trials (Koutoukidis et al., 2020; Hacker et al., 2021; Larsen et al., 2020), and a nonrandomized control trial study (Duregon et al., 2019). The results from studies ranged from exercise improving physical functioning, depression, and fatigue (Bergenthal et al., 2014) to counteracting side effects from chemotherapy and reducing bedrest syndrome (Duregon et al., 2019). Given the importance of early identification of frailty in older adults undergoing ASCT for MM in the hospital, screening for frailty, early consultations with physical therapy, occupational therapy, nutritionist evaluation, walking education session, and a walking dairy may be beneficial in battling frailty and improving quality of life. Therefore, this evidence-based project (EBP) included the needed components for identifying frailty and interventions to modify frailty in an older adult with MM undergoing an ASCT in the hospital.

Project Framework

The proposed project was an EBP. The evidence in the literature review supports the implementation of frailty assessments and a walking intervention for hospitalized older adults with MM. The problem areas identified in older adults with MM include lack of frailty identification (Thompson et al., 2020), proper referral to specialists such as physical therapy (Bergenthal et al., 2014), occupational therapy (Hiraga et al., 2019), and nutritionist (Liang et al., 2021), lack of knowledge on benefits of walking (Dubbert et al., 2002), and knowledge regarding resource tools such as a walking dairy (Hiraga et al., 2019; Okur et al., 2019). The problem is a priority for older adults with MM because they have a high risk of frailty (Moller et al., 2021; Cook et al., 2020; Hacker et al., 2021).

The framework used to guide this EBP was the revised IOWA model, which consists of seven steps. The Iowa Model, revised version, was publicized internationally in 2015 and remained an extensively used framework for an application-based guide for the EBP process (Buckwalter et al., 2017). The first step of the IOWA model is identifying an issue or prospect for change (Cullen et al., 2022). This project included identifying a lack of frailty assessment and the need for a bundled intervention in older adults with MM.

Step two of the IOWA model is to state the purpose or question (Buckwalter et al., 2017). Stating the purpose enables a more determined approach to synthesizing the evidence and guides the next decision step (Buckwalter et al., 2017). This project stated the question in the form of PICOTS (population, intervention, comparison, outcome, time, setting).

Step three of the IOWA model is forming a team, and the necessary actions include reviewing existing literature, obtaining baseline data, and connecting key stakeholders (Buckwalter et al., 2017). The team for this project consisted of the lead nurse practitioner, the

physical therapists, the occupational therapists, and nutritionists. The team members were made aware of the project and given ample opportunity to ask questions.

The fourth step of the IOWA model is gathering, appraising, and synthesizing the evidence (Cullen et al., 2022). A comprehensive literature review in an evidence table was executed to find the best practices for preventing frailty in the older adult MM population (Appendix A). The evidence was analyzed using the John Hopkins Nursing Evidence-Based Practice Appraisal Tool, and the best practice method was synthesized.

The fifth step of the IOWA model is to pilot the practice change (Cullen et al., 2022). The proposed change was implementing the Step Squad Bundle to identify and treat frailty in older adults with MM admitted for an ASCT, as no such practice is currently available. The resources used for this project include educational handout on walking and a walking log/diary. The approval was obtained from the Graduate Nursing Review Committee (GNRC), the project took a span of eight weeks. Data was collected to guide the team in evaluating the benefits of this practice change.

Step six of the IOWA model is to integrate and sustain the practice change (Buckwalter et al., 2017). If this project is successful, the project team will continue collaborating with the stem cell transplant department to integrate the Step Squad Bundle on a routine basis.

The IOWA model's last step is disseminating results (Cullen et al., 2022). The project's success will be disseminated through departmental meetings, poster presentations, and published articles.

Project Question

The first step when determining a gap is to create a PICOTS. The next step is to do a literature search using the concepts of PICOTS and the intervention that is upheld by evidence.

STEP SQUAD BUNDLE IN OLDER ADULTS

The project is designed to answer the following PICOTS question: among older adults, ages 60 and over with MM and hospitalized for an ASCT, will executing the Step Squad Bundle (screening, referrals, education, and resources) compared to no current bundle to increase assessment of frailty, provide proper referrals, increase knowledge of walking, and improve active self-management with the use of resources over eight weeks, at an inpatient stem cell transplant unit at an oncology hospital in Texas?

Project Objectives were as follows:

1. Screen and identify all older adults with MM undergoing an ASCT using the FRAIL scale, a validated screening tool upon admission.

2. Provide early referrals to specialists treating frailty, such as physical therapists, occupational therapists, and nutritionists.

3. Increase awareness of the benefits of walking by providing the patient with an educational handout.

4. Ask patients if they understand the information on the educational handout and answer any questions.

5. Provide a resource tool such as a walking diary to empower self-management for patients to stay physically active and document progress.

6. Have the patient set personalized goals for walking and the number of minutes to walk each day.

7. Provide the FRAIL scale tool to assess for frailty during discharge.

8. Collect data on outcome variables on the types of care provided to the patient and the patient's health outcomes.

9. Analyze data with a statistician.

10. Disseminate results and outcomes with a presentation at the department meeting.

Methods

Setting

The project site was at a large hospital in Texas, which provides advanced cancer care at several locations throughout the Houston area and collaborates with health systems nationwide. In 2022, it treated over 175,000 patients, participated in 1,680 clinical trials, and invested over one billion dollars in research. Within this large hospital that treats many rare cancers, the project location is an inpatient unit comprising 88 hospital beds. This inpatient unit's purpose and specialty is to treat hematological malignancies with chemotherapy followed by a stem cell transplant. Services provided include administering chemotherapy, infusing stem cells, transfusing blood products, administering medications, and providing tools for physical recovery. Approximately 800 stem cell transplants are performed annually. These patients each have a bedside nurse during their hospital stay, and primary care team members see them daily while hospitalized, including a physician, nurse practitioner, and pharmacist. The nurse-to-patient ratio is approximately four patients to one nurse. In addition, the patients have multidisciplinary team members optimizing their care, such as physical therapists, occupational therapists, and nutritionists. The hospital employs people of all ethnicities. Site approval by the supervisor was received and attached (see Appendix B).

Population with Inclusion and Exclusion Criteria

The inclusion criteria for the proposed target population for this project included men and women with multiple myeloma ages 60 and above undergoing chemotherapy and an autologous stem cell transplant. The project allowed patients with multiple myeloma to have chronic diseases such as hypertension, heart failure, and diabetes mellitus. The project accepted all ethnicities, including Caucasians, African Americans, Asians, and Hispanics. The recruitment process involved inviting all qualifying participants who want to participate. There were no exclusion criteria.

Team Roles

The project leader facilitated the implementation of the project. As the project leader, the DNP student recruited hospitalized patients, screened them, educated them, provided resource tools, followed up with them throughout their hospital stay, and collected data. The DNP student learned of eligible patients coming in for admission through email communication by the admission coordinator. Additional team members included specialized consultants such as the physical therapist, occupational therapist, and nutritionist, who continued to provide routine services to patients to aid their recovery. The bedside nurse assigned to the patient also assisted the patient in meeting their health goals; however, this was also part of their standard role. The project leader reviewed the consultant's progress notes to learn about the patient's nutrition and physical status. Therefore, the consultants had no extra roles in screening or educating patients outside their routine duties regarding the project. The consultant's role is supplemental and provided additional interventions to their physical recovery. The project leader was responsible for ensuring a smooth project transition from patient recruitment to admission until the patient was discharged from the hospital.

Required Education

As the project leader, the DNP student recruited eligible hospitalized patients and verbally educated the patient in their hospital rooms. The DNP student started educating patients by explaining the frailty components using a diagram (see Appendix C). The project leader received approval to use the diagram from the author (see Appendix D). The diagram was simple and easy to read for an older adult. In addition, the DNP student provided education on walking using the patient education handout as a guide (see Appendix E). The DNP student gave a walking diary/log as a resource tool for patients to log their walking time daily. The walking diary/log was on the back of the patient education handout (see Appendix F). The patient education handout is written at an 8th-grade reading level, uses plain language, and has a helpful tone. The project leader contacted the patient education specialist at the hospital and confirmed that the information was available to patients and staff for teaching (see Appendix G). The DNP student provided the patient with a frailty diagram, a patient education handout on walking, and a walking diary/log. Lastly, the patient was given the opportunity to ask questions to the DNP student.

Implementation Steps

Prior to starting the Step Squad project, the project leader confirmed the project by obtaining approval from the department supervisor (see Appendix B). The project leader followed the GANTT chart of the timeline of the project phases (see Appendix H) and sent it to the supervisor for transparency.

1.   In the first two weeks, the project leader developed and organized the project by making ten copies of documents such as the frailty diagram, patient education handout on walking, and the walking diary/log. The pages were stapled together in a packet and ready for use. The project

leader was on the email group to receive a list of new admissions the admissions coordinator generated. This task was already a part of the project leader's workflow.

2.   In week three, recruiting of patients began for the Step Squad project. Once a qualifying patient was identified, the project leader found the location of the hospital bed that the patient was assigned.

3.   On the day of the patient's admission, the project leader recruited the patient by having a face-to-face encounter with the patient to talk about partaking in the Step Squad project. The 60-minute session included the project leader, the patient, and the caregiver if present.

4.   After the patient agreed to participate, the project leader started by reviewing the frailty diagram (see Appendix C). Then the project leader reviewed and discussed the patient education handout on walking (see Appendix E). After this step, the project leader introduced the walking diary/log (see Appendix F), encouraged the patient to walk daily in the hospital and record their time in the log for tracking and self-empowerment. The project leader distributed the stapled handout packet to the patient.

5.   The project leader administered the Frail scale screening tool as a pre-test which is a five-item questionnaire (see Appendix I), to assess the frailty status of the patient before starting the Step Squad intervention. Approval has been granted to use the Frail scale tool for this project (see Appendix J). The project leader kept the Frail scale questionnaire with the score as a record for the data collection. All patient information and score documents were locked in a desktop drawer.

6.   The project leader made the patient aware of the routine services offered during the hospitalization, such as a nutritionist referral, physical therapy consults, and occupational therapy

consult, that improve recovery. The project leader marked this information in the database if a patient agreed to referrals.

7.   To close the conversation, the project leader encouraged the patient to stay active in the hospital by walking daily and recording their walk time starting from that day. Maintaining patient willingness is essential, and goals for shared decision-making were discussed and documented in the database. If, at any time, if one of the patients did not wish to continue the project, they had the option to opt-out without penalty.

8.   After the face-to-face encounter with the patient, the project leader recorded essential data about the patient in the database, such as age, gender, and Frail scale score. The project leader created an anonymity code sheet by assigning each participant a number code as a de-identifier. The database was kept in a password-protected computer in a locked room.

9.   The project leader followed up with the patient the day after the conversation and once a week to ensure compliance and understanding of the walking diary/log.

10.   The project leader reviewed the patient's progress notes throughout the hospital course for data collection, such as if the patient is participating in recommended activities with a physical and occupational therapist and tolerating oral intake. Data was collected for the database.

11.   After learning the potential discharge date from the progress notes, the project leader had a 30-minute face-to-face encounter with the patient before discharge to administer the post-test with the Frail scale tool. In addition, the project leader requested to take back the walking diary/log for data collection. The walking/log diary and Frail scale questionnaire were locked in a desktop drawer.

12.   The Frail scale pre-test and post-test scores were recorded in the database, and data

regarding the number and type of referrals, having received patient education handouts, and

compliance with patient goals.

13.   The project leader requested a statistician to analyze the data by week nine of the project.

14.   In week ten and afterward, the project leader obtained feedback from the department

leadership to gain insight into the project's efficacy and if the project entails developing a

permanent approach to preventing frailty in hospitalized multiple myeloma patients.

Data Collection and Database

        The project leader collected data. Maintaining strict privacy and patient confidentiality

was essential; therefore, the project leader was the sole individual to have access to the master

database spreadsheet. The project leader secured the spreadsheet in a password-protected desktop

computer in the project leader's locked office. Each participant was assigned a code (001, 002,

etc.) for privacy protection that corresponds with their data in the order they were enrolled. In

addition, their code corresponded with their first name initial and last name initial with a number,

such as, A = 1, B= 2, C = 3, D =4. The project leader documented the last two numbers of the

patient's birth year, corresponding with their assigned identification code. For example, Abraham

Lincoln, born in 1809, had a code of 000 linked to 1-12-09 (see Appendix K).

        Data collection for the spreadsheet involved collecting relevant information on patient

characteristics after the first encounter with the patient (see Appendix L). Patient demographic

variables such as gender, age, and ethnicity were documented by the project leader. The project

leader gathered information, such as if the patient agreed to specialized referrals during their

hospitalization to aid recovery, such as nutritionist, physical, and occupational therapy. Lastly,

scores from the Frail Scale pre-test from the first encounter and post-test upon discharge were documented, as well as if the participant fulfilled goals from shared decision-making. A legend depicting each variable was in the spreadsheet (see Appendix M).

Due to the paper format of the Frail scale questionnaire and the walking log/diary, the project leader collected all the completed documents and stored them in a locked desktop drawer in the project leader's office. The project leader shredded the papers when the data was entered into the spreadsheet. The dashboard contained aggregated data from outcome variables and the coding categories for the Frail scale (see Appendix N).

Statistical Analysis

The project leader collected data at the time of hospital admission, pre-intervention, and then at the time of patient discharge, which was post-intervention. Only one group of patients engaged in the project for three weeks while admitted to the hospital. Using paired samples t-test analysis when evaluating the same group of people is recommended for EBP's statistical analysis (Grove & Cipher, 2020). The pre-and post-Frail scale scores were examined using descriptive statistics as well as paired t-tests (Y. Kao, personal communication, July 14, 2023). An Excel spreadsheet was used for the data. Data such as frequency, means, and percentages was analyzed using quantitative data, such as the participant's age and the number of participants compliant with referrals and ambulating. Demographic data such as gender and ethnicity were examined using a nominal scale. In addition, Pearson correlational tests using Statistical Package for Social Sciences (SPSS) version 29 was utilized to measure the strength and direction of the association between two variables, such as the correlation between gender and frailty scores (Y. Kao, personal communication, July 14, 2023). The project leader collaborated with the statistician for further assistance with data analysis after collecting data.

Ethics

The project leader was trained in subject protection to protect patients and their privacy. The project leader obtained approval from the GNRC, a sub-committee of the University of Texas at Arlington (UTA) Internal Review Board (IRB), and the project started after granted this approval. In addition, the project leader completed Human Subject Training provided by UTA IRB (see Appendix O).

Tools Reliability and Validity

The Frailty scale tool asks simple questions based on slowness, weakness, weight loss, exhaustion, and low physical activity (Morely et al., 2021). Scores on the Frail scale pre and post-test were evaluated for data analysis (see Appendix I). Permission to use the Frail scale was granted to the project leader (see Appendix J and Appendix P).

The validity of the Frail scale for predicting prognosis in an aging population has been recognized globally (Nozaki et al., 2021). According to the study by Nozaki et al. (2021), 459 patients were classified as frail, and 491 were classified as prefrail by the Frail scale. One hundred eighteen deaths happened during one year of follow-up (Nozaki et al., 2021). The FRAIL scale's area under the receiver-operating characteristic curves was 0.74, showing validity (Nozaki et al., 2021). Furthermore, the study by Zhang et al. (2020) showed high test–retest reliability levels for the Frail scale (Zhang et al., 2020). In addition, Frail scale scores were negatively correlated with walking speed and grip strength, which implies that it is a reliable frailty screening instrument (Zhang et al., 2020).

The walking log/diary recorded the patient's walking time daily (see Appendix F). Permission had been granted to use the walking log/diary (see Appendix G). Although validity and reliability have not been statistically tested for the document, it is based on research by

Hiraga et al. (2019), and because it will help to answer the PICOTS question for this project, it is a valid tool to use.

SWOT, Risk Management, Organizational Readiness, GANTT, and Budget

The evidence-based project was ready for implementation after careful consideration and coordination. The SWOT (strengths, weaknesses, opportunities, and threats) analysis table examined the project's setting (see Appendix Q). The Risk Management Table identified events and their likelihood and plans to rectify the circumstances (see Appendix R). The Organizational Change Readiness Assessment determined how ready the organization is for change (see Appendix S). The GANTT chart shows a timeline for the project (see Appendix H). Lastly, a budget plan identified costs associated with the project, regardless of if the expenses were already paid for and accounted for by the organization (see Appendix T). The budget plan displayed an approximate annual and monthly expense summary, predicting the cost if the project was extended.

<center>**Results**</center>

Twenty-one older adults with MM undergoing ASCT participated in the Step Squad Bundle. Participants' demographic characteristics revealed an equal number of males and females, with an age range from 61 years of age to the oldest 74 years of age. Nineteen participants (90%) had referrals to physical and occupational therapy and worked with them throughout the hospitalization. Fifteen participants (71%) complied with shared decision-making goals by documenting their activity in a walking diary. Their frailty scores were identified on admission, prior to the intervention, and then upon discharge from the hospital when the intervention was complete. Descriptive statistics revealed that the minimum score on the Frail

Scale was 0 (robust health), and the maximum score was 5 (frail). Only one participant scored a 5 on the pretest and maintained a five on the posttest, revealing an outlier physical status being admitted for ASCT and no change at discharge. The most positive finding from the project revealed that all 18 participants (85%) either ambulated daily or three to four days a week while hospitalized. This signifies active efforts of physical activity encouraged by the Step Squad Bundle.

The intervention was not statistically significant. Item 1 on the Frail Scale indicated fatigue levels stayed the same for sixteen participants (76%) throughout their transplant journey while participating in the Step Squad Intervention. The clinical significance of the intervention is that their fatigue level did not change after undergoing aggressive medical treatment. In addition, on item 2 of the Frail Scale, 14 (66%) participants indicated being able to walk up ten steps without resting prior to admission and at discharge. Data on item 3 of the Frail Scale reflects that sixteen participants (76%) could ambulate without assistance before intervention and at discharge. The effects and influence of the frailty information and walking encouragement are measurable and evident in the almost unchanged post frail scale scores. These clinically significant findings suggest that the Step Squad Bundle has maintained the physical ability of older adults undergoing chemotherapy.

In addition, one significant finding indicated that 11 patients (52%) were admitted with at least five chronic illnesses, which stayed the same from admission to discharge. This means that older adults with several comorbidities are being admitted for ASCT. The advanced age at diagnosis of MM, associated with chronic illnesses, has led to frailty in this population (Moller et al., 2021). However, with this bundle, patients are not losing ground. Instead they are

maintaining their ground and at discharge can continue the interventions at home to improve their physical status.

Discussion

The PICOT question for this evidenced-based project was among older adults, ages 60 and over, with MM and hospitalized for an ASCT, will executing a Step Squad Bundle (screening, referrals, education, and resources) compared to no current bundle to increase assessment of frailty, provide proper referrals, increase knowledge of walking, and improve active self-management with the use of resources over eight weeks, at an inpatient stem cell transplant department in an oncology hospital in Texas? The Step Squad Bundle was used to answer the PICOT question as Frail Scale scores in older adults admitted for ASCT helped the participants understand the implications of frailty. The evidenced-based project was intended to have older adults take a vital role in their active self-management by walking daily, even while hospitalized. The analysis of scores demonstrated goals accomplished by providing similar scores for both pre- and post-Frail Scale scores.

Previous studies have shown promise in improving motivation for exercise through counseling and educating patients (Dubbert et al., 2002). Similar to findings in literature, the Step Squad Bundle has shown that educating patients and emphasizing the benefits of walking motivates them to stay active during hospitalization, regardless of comorbidities. This evidence-based project has confirmed effectiveness in increased knowledge and actions that will impact a healthy lifestyle and improve disease outcomes in patients with MM. This project has also

provided a foundation for future replication of programs for older patients with other hematological malignancies undergoing an ASCT.

Limitations

The Step Squad bundle was accessible to all eligible participants as the cost was included with the admission of an ASCT. No grants were available, and the cost of copies and informational handouts was approximately $170. Participants received a complimentary pen for documenting their walking time on the walking diary, which was $5 for the total cost of pens. The specialty referrals, such as physical therapy, occupational therapy, and nutritionist, were included with the cost of the admission.

The main limitation of the project was the need for more team members to do counseling and follow up on the patients in the program. The project leader talked with all the participants throughout the project, which was time-consuming. In addition, the project leader had to explore an appropriate time to speak to patients. Often, patients were in a procedure or transplant, undergoing tests, talking to other healthcare providers, or not feeling well enough to speak to the project leader about the project. Additional limitations included patients that had an infection that caused them to be in an isolation room. Those patients could not ambulate outside the nursing unit and, therefore, only for short timespans in their hospital rooms. Furthermore, participants whose caregivers were at the bedside were more likely to show enthusiasm for staying fit throughout the hospitalization than participants without caregivers or visitors. Participants without caregivers or visitors to motivate them required more encouragement and frequent follow ups to ensure they followed through with the goals.

Implications for Nursing

Nursing implications should focus on identifying and preventing frailty in older adults, regardless of hospitalization or disease process. Practice implications reflect the importance of physical activity by self-management in the older population to prevent frailty and improve health outcomes. In addition, there should be community or neighborhood programs, such as access to online exercise groups with leaders to inspire them and encourage daily walking and physical activity for older adults. Future projects could evaluate the improvement in frailty scores through resistance training and ambulation in the hospital. A replication of this project could promote identifying and improving frailty in all hospitalized or community older adults, which can increase patient and provider awareness. Future research could be done on connections via online or smartphone and creating online chat groups to encourage walking and physical activity, which might show even further improvements.

Conclusions

The DNP scholarly project represented an evidence-based program that creates a foundation to serve older adults with MM undergoing ASCT. This population is underrepresented in literature and should be prioritized to achieve ideal health outcomes. The need for this type of evidence-based project and the study methods proposed have been explained in previous sections of the manuscript. As older adults in the United States continue to live longer and with multiple comorbidities, there is a need for programs to address frailty, which leads to diminished quality of life. More importantly, many older adults diagnosed with malignancies continue to suffer unnecessarily due to a lack of knowledge or tools to prevent frailty.

STEP SQUAD BUNDLE IN OLDER ADULTS

   The described DNP project is envisioned to inspire older adults with MM undergoing ASCT toward lifelong change in their physical activity, leading to a heightened quality of life. The vision of increased knowledge and long-standing behavior change preventing frailty in older adults guides future projects. The goal is identifying and preventing frailty, improving health outcomes, and longevity for the target population.

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Appendix A

Evidence Table for Literature on Step Squad Bundle in Older Adults with Multiple Myeloma Hospitalized for an Autologous

Stem Cell Transplant

#	Author, Database, Article	Type of Article	Aim or Hypothesis	Sample Size, Population	Intervention	Results, Recommendations	Grading
1	Bergenthal et al. (2014) Cochrane Database of Systemic Reviews Aerobic physical exercise for adult patients with hematological malignancies	SR	Synthesized analysis of 9 RCTs Aim: To evaluate the efficacy, safety and feasibility of aerobic PE for adults suffering from heme malignancies	Sample Size: 818 men and women with heme malignancies were randomly allocated either to a PE group plus standard care or to a standard care alone group. Population: Trials on adults (18 years and over) with confirmed diagnoses of heme malignancies	Aerobic PE with standard care, compared to standard care alone. Exercise intervention consisted of walking intervention programs with different duration and intensity levels.	PE plus standard care can improve quality of life, physical functioning, depression and fatigue. PE improves QoL (95% CI 0.03 to 0.49, 3 trials, 291 participants). Positive effect of exercise on physical functioning (95% CI 0.13 to 0.52; 4 trials, 422 participants). PE improves fatigue (95% CI 0.08 to 0.40; 7 trials, 692 participants).	Level 1; SR of RCTs; A-High Quality Comprehensive literature review that includes thorough reference to scientific evidence
2	Defor et al. (2007) PubMed A Randomized Trial of the Effect of a Walking Regimen on the Functional Status of 100 Adult Allogeneic Donor Hematopoietic Cell Transplant Patients	RCT	Aim: To investigate the impact of exercise on adult HCT recipients	100 patients enrolled, n=51 to the structured exercise regimen and n=49 control group. Median age was 47.	Walking on treadmill and recommendation of a specific daily walking regimen. Walk for at least 15 minutes twice a day on a treadmill. Visits were made to the patients' rooms three days a week to encourage compliance with regimen. After discharge, encouraged walk once a day for at least 30 minutes.	Aerobic activity, such as walking, has a positive impact on patients undergoing HCT especially to those less fit coming into transplant. Regular PA to patients leads to better physical performance and a better perceived physical and emotional state.	Level 1; RCT; A-High quality. Consistent, generalizable results, sufficient sample size for study results. Consistent recommendations.

STEP SQUAD BUNDLE IN OLDER ADULTS

| 3 | Duppert et al. (2002)

PubMed

Effects of Nurse Counseling on Walking for Exercise in Elderly Primary Care Patients | RCT | Hypothesis: participants who received telephone follow-up nurse counseling would report greater adherence to the walking goals than participants who received no follow-up calls, and those who received personal calls would report greater adherence than participants receiving a mixture of personal and automated calls | 181 participants

Population: 60–80 years of age, enrolled in primary care clinic, noninstitutionalized and independent in ADL, stable health, willing to walk for exercise, attend research clinic visits, and satisfactory performance on a 6-minute walking (6MW) test. | Individualized nurse counseling to begin a program of walking for health, three levels of telephone contacts over 10 months: (a) 20 nurse-initiated calls, (b) 10 nurse-initiated calls plus 10 motivational calls programmed through an automated phone calling system, or (c) no program-initiated phone contacts. Self-reported diary for walking adherence. | Average adherence for the 181 participants to the goal of walking at least 20 minutes on 3 or more days per week was 44% for initiation and 42% for maintenance. Participants receiving the combination of nurse-initiated personal and automated phone calls walked significantly more frequently than those with no phone contacts. Fitness improved in all three groups; changes were generally correlated with self-reported walking. Companion was associated with more frequent walking. Walking diary records demonstrated that more than half the participants initiated a walking program that met the study goal of walking. | Level 1; RCT; A-High Quality

Consistent; generalizable results; consistent recommendations.

First study of a primary care counseling program for elderly patients where participants demonstrated improved fitness in association with self-reported improvements in PA. |
| 4 | Duregon et al. (2019)

CINAHL

Exercise prescription and tailored physical activity intervention in onco-hematology inpatients, a personalized bedside approach to improve clinical best practice | NRCT | Aim: to determine the feasibility of an inter-hospital intervention and the role of a tailored exercise program in the maintenance of the physical function in heme inpatients.

Hypothesis: Integrated exercise intervention can improve physical function or at least prevent the normal physical decline due to the chemotherapy in onco-hematological inpatients undergoing treatments. | Sample size: n=42, aged from 21 to 69 years old, with heme malignancies

Population: >18 years old, newly diagnosed or relapsed acute myeloid leukemia, lymphoma or MM, initiating induction chemotherapy, and medically cleared for participation by the attending physician | Tailored exercise protocol focused on development of strength, balance control, and flexibility; sessions were performed in the patient's hospital room everyday for 15 to 30 minutes. Supervised by an exercise specialist and driven by a multimedia support. Control group remained physically inactive for all period of hospitalization. | Intervention group showed an improvement in right (+6.91%) and left (+7.94%) hand-grip strength test, in 30's chair stand test (+18.44%) and in first subscale of Fullerton Advanced Balance scale (FAB1) (+16.22%).

Tailored exercise protocol was feasible and efficient to promote the maintenance of their physical function, counteracts side effects from chemotherapy, and reduce bedrest syndrome. | Level III; Quasi-experimental; B- Good Quality

Sufficient sample size for the study, some control, reasonably consistent recommendations.

Limit of protocol was the duration of the study (average of 7 hospital days). |

| 5 | Fisher et al. (2016)

Pubmed

Inpatient Walking Activity to Predict Readmission in Older Adults | Prospective, observational clinical cohort study. | Aim: To compare the 30-day readmission predictive power of in-hospital walking activity and in-hospital ADL in older acutely ill patients. | n=164 ambulatory persons aged 65 years and older admitted to the hospital from the community with an acute medical illness. Mean age was 76 years. | Step counts were assessed via accelerometry. ADL function was assessed within 48 hours of admission. | n = 26 (15.8%) were readmitted within 30 days of discharge. Walking activity during hospitalization was more strongly and significantly associated with 30-day readmission (95% confidence interval, 0.82–0.98) than ADL function (95% confidence interval, 0.14–1.45). Readmitted patients walked significantly less in hospital than patients who were not readmitted, 323 steps vs 674 steps. | Level IV; Prospective, observational clinical cohort study; A- High Quality. Consistent, generalizable results |
| 6 | Hacker et al. (2022)

PubMed

STEPS to Enhance Physical Activity After Hematopoietic Cell Transplantation for Multiple Myeloma | RCT | Aim: to test the acceptability, feasibility, and preliminary effects of a free-living physical activity intervention named STEPS compared with usual care (UC) on PA, fatigue, muscle strength, functional ability, sleep, and QOL following treatment for MM with HCT. | n= 32 total participants; n = 17 intervention group, n= 15 in control group.

Population: 18 years of age or older, cognitively able to understand the purpose of the study, and scheduled to undergo autologous HCT for treatment of MM. Mean age was 62 years. | STEPS intervention: structured education component implemented during hospitalization for HCT followed by a 6-week, comprehensive free-living PA intervention (STEPS) implemented after hospital discharge. The 6-week posthospitalization phase included weekly goal setting, daily step tracking, and individualized coaching to boost PA. | Improvements in mental fatigue, emotional functioning, pain, anger, anxiety, and depression but experienced declines in muscle strength (hand grip) and functional ability (timed stair climb) 7 weeks following HCT hospital discharge compared with pre-HCT (time effects). STEPS group achieved an average increase of 300% from week 1 to week 6. | Level 1; RCT; B- Good Quality

Sufficient sample size for study; fairly definitive conclusions. |

7	Hiraga et al. (2019) CINAHL Effects of using activity diary for goal setting in occupational therapy on reducing pain and improving psychological and physical performance in patients after total knee arthroplasty: A non-randomized controlled study	NRCT	Aim: To determine whether the use of an activity diary for goal setting during occupational therapy would reduce pain, and improve psychological and physical performance in patients after total knee arthroplasty.	n= 41 from two cohorts and allocated by convenience to either the experimental group using an activity diary (n = 20) or the control group (n = 21). Population: total knee arthroplasty participants	Occupational therapy intervention (1-2 weeks postoperatively) to promote goal achievement was performed in both groups, and self-monitoring was performed in the diary group by using the activity diary.	Diary group showed greater improvement in PA, Canadian Occupational Performance Measure, walking pain, and anxiety at four weeks postoperatively, compared to the control group (p < 0.05). Activity diary in this study prevented a decline in physical performance, increased occupational therapy effectiveness, and reduced patients' pain.	Level III; Quasi-experimental; B- Good Quality Sufficient sample size for study; reasonably consistent recommendations based on comprehensive literature review.
8	Knips et al. (2019) Pubmed Aerobic physical exercise for adult patients with hematological malignancies	SR with meta-analysis	Aim: find out whether aerobic PE can improve health, or play a supporting role for adult patients suffering from hematological malignancies	18 RCTs involving 1892 participants.	RCTs comparing an aerobic PE intervention, intending to improve the oxygen system, in addition to standard care with standard care only for adults suffering from heme malignancies. Also studies that evaluated aerobic exercise in addition to strength training were included.	Moderate-certainty evidence that exercise improves fatigue (95% CI 0.13 to 0.48; 9 trials, 826 patients). Depression might slightly be improved by exercising (95% CI 0.0 to 0.38; 6 trials, 445 participants).	Level 1; SR of RCT; A- High Quality Consistent, generalizable results; sufficient sample size; consistent recommendations.

| 9 | Koutoukidis et al. (2020)

PubMed

Fatigue, quality of life and physical fitness following an exercise intervention in multiple myeloma survivors (MASCOT): an exploratory randomized Phase 2 trial utilizing a modified Zelen design | RCT | Aim: explore the benefits of an individually tailored exercise program on levels of fatigue. | 131 were randomized. n=89 exercise intervention group versus n = 42 in control group. Population: Patients with MM with stable disease for at least 6 weeks, completed their initial treatment or were on maintenance therapy, had ECOG performance status 0–2 and were able to undergo a regular exercise program. | 6-month aerobic and resistance exercise-training program. Aerobic training consisted of treadmill walking, cycle ergometer, cross-trainer or stepper at a target intensity of 50–75% of predicted maximum heart rate, calculated during baseline cardiorespiratory fitness testing. | Muscle strength improved at 3 months (95% CI: 0.5–16.3) and 6 months (95% CI: 1.2–20.5). Cardiovascular fitness improved at 3 months (95% CI: 0.3–3.7). In participants with clinical fatigue (n = 17), less fatigue with exercise over 6 months (95% CI: –0.6–13.3). | Level 1; RCT; A- High Quality Consistent; generalizable results; consistent recommendations. Comprehensive literature review that includes reference to scientific evidence. |
| 10 | Larsen et al. (2020)

PubMed

Physical function in patients newly diagnosed with multiple myeloma; a Danish cohort study | RCT | Aim: to investigate whether physical function in newly diagnosed patients with MM differs from the reference values of the normal population and other cancer patients.

Hypothesis: Patients with MM have poorer physical function than the normal population and patients with other cancer diagnoses. | n=100 patients newly diagnosed with MM. Mean age was 67. Control: results compared to normative data and to data from other cancer populations. | Four physical function tests were carried out; Six-Minute-Walk-Test, Sit-to-Stand-Test, grip strength and knee extension strength. Age and gender specific results of physical function from the MM population were compared to normative data and to data from other cancer populations. | Patients with MM had significantly poorer physical function compared to normative data, both regarding aerobic capacity and muscle strength, although not grip strength. 73% had bone disease and 55% received pain relieving medicine. | Level 1; RCT: A-High quality Consistent, generalizable results; sufficient sample size for the study design; definitive conclusions. |

11	Liang et al. (2021) PubMed The correlation between nutrition and frailty and the receiver operating characteristic curve of different nutritional indexes for frailty	Cross-Sectional Study; non experimental study	Aim: To explore the correlation between nutrition and frailty and compared the receiver operating characteristic curve of different nutritional indexes for frailty.	Cross-sectional study n= 179 inpatients aged ≥65 years old.	Frailty was measured using Fried Frailty Phenotype, handgrip strength was measured using JAMAR@Plus and the 4.57 m usual gait speed was measured using a stopwatch. Comprehensive nutritional assessment with Mini Nutritional Assessment to assess the nutritional status.	Comprehensive nutritional assessment, was significantly correlated with frailty ($P < 0.05$). Model1 showed that the risk of frailty in malnourished patients was 3.381 times higher than that in well nourished patients ($P = 0.036$). Model2 showed that the risk of frailty decreased by 13.8% for every 1 point increase in MNA score ($P = 0.009$).	Level IV; Cross-Sectional study; A-High Quality. Consistent, generalizable results
12	Moller et al. (2020) PubMed Physical activity is associated with less comorbidity, better treatment tolerance and improved response in patients with multiple myeloma undergoing stem cell transplantation	RCT	Aim: to compare comorbidities and clinical outcome in physically active and inactive patients with MM.	n= 53 active MM patients versus control group of n =53 inactive MM patients.	Intervention group: PA was done through first-line treatment, starting with induction therapy until the end of first-line treatment 3 months post ASCT. Control group: usual activity, not adhering to World Health Organization (WHO) guidelines.	PA in patients with MM has positive effects on various MM-related comorbidities/symptoms, therapy tolerance, response to treatment, duration of in-patient stays, PFS, and OS.	Level 1; RCT; A-High Quality Consistent, generalizable results; sufficient sample size for the study design; definitive conclusions.

13	Navarrete-Villanueva et al. (2021) Pubmed Frailty and Physical Fitness in Elderly People: A Systematic Review and Meta-analysis	SR	To investigate the magnitude of the associations between frailty and different physical fitness components and to analyze if several health-related factors can act as mediators in the relationship between physical fitness and frailty.	Systematic search was conducted of PubMed, SPORTDiscus, and Web of Science, covering the period from the respective start date of each database to March 2020, published in English, Spanish or Portuguese. 20 studies including 13,527 participants	The quality assessment tool for observational cross-sectional studies was used to assess the quality of the studies.	Usual walking speed was the physical fitness variable most strongly associated with frailty status, followed by aerobic capacity, maximum walking speed, lower body strength and grip strength.	Level 1; SR of RCT; A-High Quality Comprehensive literature review that includes thorough reference to scientific evidence
14	Nichol et al. (2023) Science Direct (Elsevier) Safety, Feasibility, and Efficacy of Exercise Interventions for People With Multiple Myeloma: A Systematic Review	SR	Aim: To assess the safety, feasibility, and the efficacy of participation in exercise programs for improving physiological and/or psychological health of people with MM	Literature searches conducted through 5 electronic databases and appraised using the Delphi list of criteria. Controlled trials that assessed the safety and feasibility of an exercise intervention and its effects on disease- or treatment-related symptoms in people with MM were included. 7 studies of varying quality involving 563 participants were included. The mean age of participants was 60 years (range 55-68).	Of the 7 exercise interventions, 3 involved aerobic exercise and resistance training, with a further 3 also including a stretching component. One study included home-based walking only. Aerobic exercises included walking, stationary bike, running, cross-trainer, stepper and/or cycling. Resistance training included machine-based, body weight, and/or resistance band exercises. Prescribed exercise session frequency ranged from 3 to 7 sessions per week. Sessions were scheduled for 15 to 75 minutes in duration	Exercise appears safe for people with MM at low risk of pathological fracture. Positive trend toward less fatigue after exercise in those people with MM.	Level 1; SR of RCT; A-High Quality Comprehensive literature review that includes thorough reference to scientific evidence

15	Okur et al. (2021)

PubMed

Physical activity patterns in children with cerebral palsy and typically developing peers | NRCT | To compare PA level between children with cerebral palsy and typically developing peers using accelerometer and activity diary. | n=20 children with spastic cerebral palsy and n=20 healthy age- and sex-matched typically developing peers | Activity diary was logged, and each child wore an accelerometer for 4 days, 2 weekdays and 2 weekend days. | Significant relationship between accelerometer and activity diary in total energy expenditure for children with cerebral palsy (r = 0.752, p < .001) and typically developing peers (r = 0.732, p < .001) and a moderate significant relationship in PA energy expenditure for children with cerebral palsy (r = 0.463, p = .040). Activity diary could be a valid measure of PA levels in children with cerebral palsy. | Level III; NRCT; B- Good quality Sufficient sample size for the study, some control, reasonably consistent recommendations |
| 16 | Thompson et al. (2019)

PubMed

FRAIL scale: Predictive validity and diagnostic test accuracy | Nonexperimental Study | Aim: To examine the predictive validity of the FRAIL scale for mortality, and diagnostic test accuracy against the frailty phenotype. | n= 846, community-dwelling population of older adults (mean age 74.3 years, 54.8% female). | Frailty measured with modified FRAIL scale and modified frailty phenotype. Mortality was matched to death records. | Significant correlation between continuous versions of the FRAIL scale and the frailty phenotype (r = .62, P < .001). Individuals classified as frail by the FRAIL scale had significantly more than double the mortality risk (95% CI: 1.78-3.80, P < .001) over 10 years of follow-up . The FRAIL scale is a valid predictor of mortality. | Level III; Nonexperimental Study; A-High Quality Consistent, generalizable results |

Note: SR= Systemic reviews; RCT= randomized control trials; NRCT= nonrandomized control trial; MM= Multiple Myeloma; Heme= Hematological; ASCT= Autologous stem cell transplant; PFS= progression free survival; PA= physical activity; OS= overall survival; PE= physical exercise; HCT= hematopoietic cell transplant; ADL= activities of daily living

STEP SQUAD BUNDLE IN OLDER ADULTS

Appendix B

Organizational Approval Letter

From: Rivera,Zandra R <zrrivera@mdanderson.org>
Sent: Friday, February 24, 2023 11:31 AM
To: Panjwani,Nadya H <nhpanjwa@mdanderson.org>
Subject: EBP project for DNP program

Dr. Deborah Behan
University of Texas Arlington, DNP program

Nadya Panjwani has discussed her EBP project in detail with me. She explained her EBP project for her DNP program will be assessing frailty in older patients with Multiple Myeloma (MM) hospitalized for an autologous SCT (ASCT). Looking forward to supporting Nadya's efforts with her EBP project.

Sincerely,
Zandra Rivera, DNP, APRN, ANP-BC, BMTCN
Supervisor, Advance Practice Provider, Stem Cell Transplantation & Cellular Therapy
The University of Texas MD Anderson Cancer Center
1515 Holcombe Blvd., Unit 423
Houston, TX 77030
ZRRivera@mdanderson.org
713-563-0898 (office)
713-606-0830 (pager)
832-673-7338 (work I phone)

Appendix C

Frailty Diagram
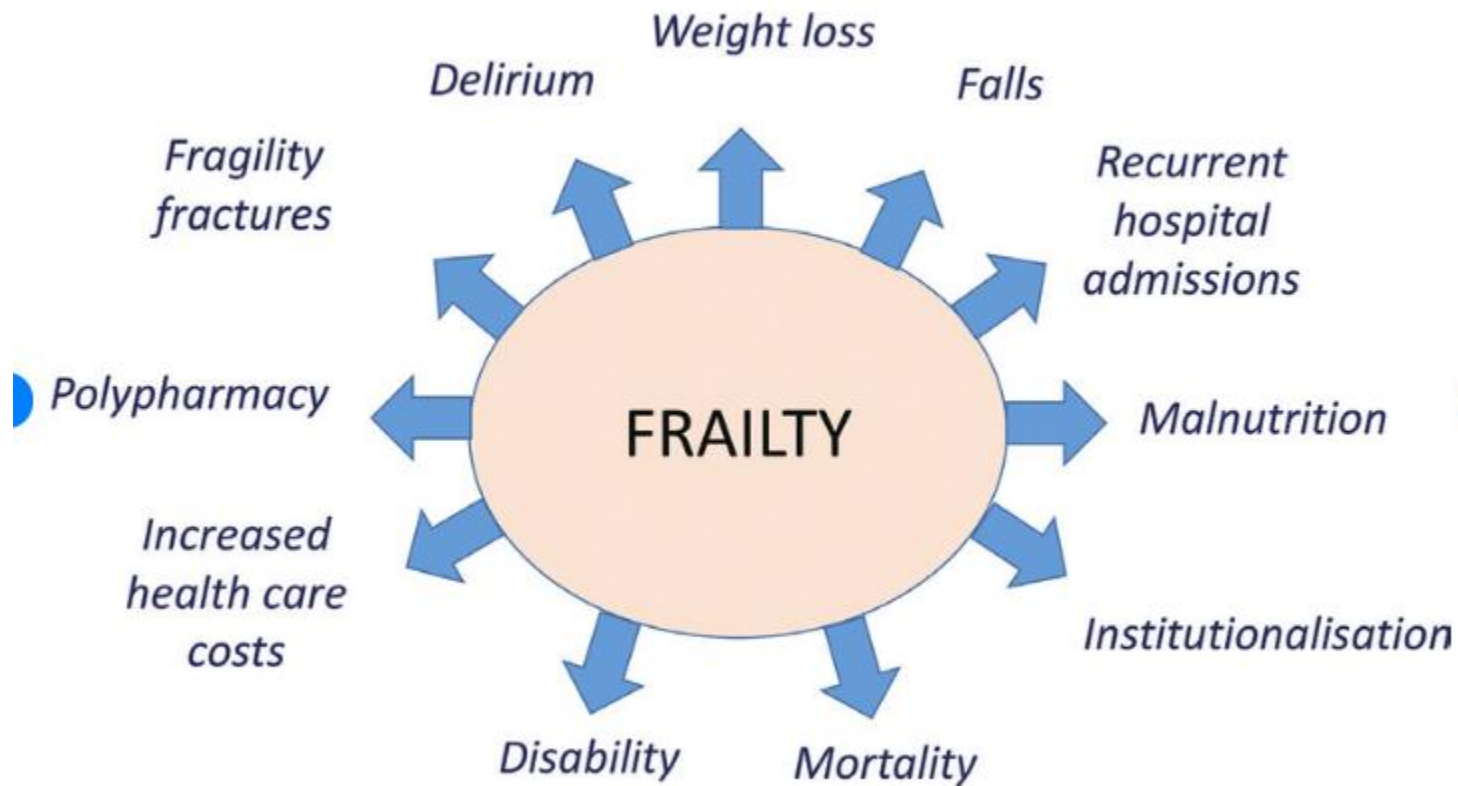
Consequences of living with frailty.

Reference
Patel, H. P., Clift, E., Lewis, L., & Cooper, C. (2017). Epidemiology of Sarcopenia and Frailty. InTech. doi: 10.5772/intechopen.69771

Appendix D

Frailty Diagram Approval

From: "Patel, Harnish" <Harnish.Patel@uhs.nhs.uk>
Date: June 21, 2023 at 1:33:30 AM CDT
To: Nadya Panjwani <nadyapanjwani03@gmail.com>
Subject: RE: Frailty image/picture

Dear Nadya

Of course you can – good luck with your teaching.
You may find these articles helpful too especially the figure to explain the development of frailty over time.

Please do acknowledge the figures when you use them.

All best

Harnish

HARNISH PATEL BM BSc PhD RCPath (ME) FRCP

Consultant Physician | Medicine for Older People | Lead Medical Examiner UHSFT
Honorary Associate Professor | Deputy Programme Lead BM Year 3 | Module Lead Year 3 BM (IT)
Faculty of Medicine | University of Southampton

Medical Secretary: Michelle Knight. Tel: 023 8120 4354/3658 Email: michelle.knight@uhs.nhs.uk
Medical Examiner Southampton is an independent service, hosted by University Hospital Southampton (UHS) NHS Foundation Trust.

e-learning on frailty for UHS staff https://www.uhs-vle.co.uk/course/view.php?id=754

From: Nadya Panjwani <nadyapanjwani03@gmail.com>
Sent: 20 June 2023 19:44
To: Patel, Harnish <Harnish.patel@uhs.nhs.uk>
Subject: Frailty image/picture

Dr. Patel,

My name is Nadya Panjwani, and I am a DNP student in Texas. I came across your book, Frailty and Sarcopenia- Onset, Development, and Clinical Challenges. I am doing a project at my hospital to prevent frailty in older adults. I wanted to use the picture in your book to educate my patients on the components of frailty. The picture is simple, yet effective. May I use it for the purpose of education for my project? Thank you so much!

STEP SQUAD BUNDLE IN OLDER ADULTS

Appendix E

Patient Education on Walking

Walking Schedule for Beginners

This information is for people who want to start a walking routine. Walking can improve heart health and decrease your risk of a cancer diagnosis (primary, recurrence or additional cancer). Aim for at least **150** minutes of moderate intensity walking each week.

If you have been recently diagnosed with cancer or are currently being treated for cancer, try to do aerobic exercise for at least 30 minutes at a moderate intensity 3 times a week.

Moderate intensity walking should make you feel a little out of breath. Your heart should beat a little faster than normal. You should be able to talk but not sing.

Tips to Start

- Get a good pair of walking shoes.
- Drink plenty of water during the day and while you exercise.
  - Drink 16 oz. of water about 2 hours before you exercise.
- You can split your daily walking time into 2 sessions (for example, on a day when you are scheduled to walk 30 minutes, try 15 minutes in the morning and 15 minutes in the afternoon).

Follow the walking schedule (on the back of this sheet) to improve your overall health and decrease your cancer risk. Move to the next week when you are ready. If you do not feel ready to move forward, repeat the previous week. The goal is to get to week 7 and maintain or increase that level of activity.

⚠ If you have any questions before starting this walking schedule, talk with your health care provider. If you have pain or discomfort when you walk, try this schedule with one of the following:
- Elliptical cross trainer
- Stationary bike

STEP SQUAD BUNDLE IN OLDER ADULTS

Appendix F

Walking Diary/Log

STEP SQUAD BUNDLE IN OLDER ADULTS

Weekly Walking Schedule

Week	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Total Mins
1	15 mins	Rest	15 mins	Rest	15 mins	Rest	20 mins	65 mins
2	20 mins	Rest	20 mins	Rest	25 mins	Rest	25 mins	90 mins
3	25 mins	Rest	25 mins	Rest	25 mins	Rest	25 mins	100 mins
4	30 mins	Rest	30 mins	Rest	30 mins	Rest	30 mins	120 mins
5	30 mins	30 mins	30 mins	Rest	30 mins	40 mins	Rest	160 mins
6	40 mins	40 mins	40 mins	Rest	40 mins	40 mins	Rest	200 mins
7	40 mins	40 mins	45 mins	Rest	45 mins	45 mins	Rest	215 mins

Use this blank schedule to track your walking.

Week	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Total Mins
1								
2								
3								
4								
5								
6								
7								

Appendix G

STEP SQUAD BUNDLE IN OLDER ADULTS

Patient Education Approval

RE: Patient education- DNP project

Phillips,Desiree G
To   Panjwani,Nadya H
Cc   Rivera,Zandra R

↩ Reply   ↩ Reply All   → Forward   ...

Wed 6/21/2023 12:47 PM

(i) You replied to this message on 6/21/2023 2:13 PM.

Hi Nadya.
Yes, you have access to the document via PE Online as well as through EPIC, which you can assign documents to patients. Here is a direct link to the document for your reference. You can use this version along with any of your usual teaching.
https://www.mdanderson.org/patient-education/Cancer-Prevention/Walking-Schedule-for-Beginners.pdf

Let me know if you have any other questions. Thank you.

Desiree G. Phillips, MS, MCHES®
Sr. Health Education Specialist, Patient Education
MD Anderson Distinguished Educator
T|713-563-8184
ddgonzal@mdanderson.org

Click the hyperlink below to submit a new project request:
Patient Education Project Request

From: Panjwani,Nadya H <nhpanjwa@mdanderson.org>
Sent: Wednesday, June 21, 2023 12:26 PM
To: Phillips,Desiree G <ddgonzal@mdanderson.org>
Cc: Rivera,Zandra R <zrrivera@mdanderson.org>
Subject: Patient education- DNP project

Hi Desiree,

I plan on doing a DNP project on frailty/walking in the next few months with our patients here at on SCT. I wanted to use the patient education handout on "Walking for Beginners". Just wanted to confirm that I can use the patient education portal for our patients for projects (in addition to usual/standard patient teaching). Please let me know. Thanks!

Thanks,
Nadya, APN
SCT

Appendix H

GANTT Chart

Task	28-Aug	4-Sep	11-Sep	18-Sep	25-Sep	2-Oct	9-Oct	16-Oct	23-Oct	30-Oct	6-Nov	13-Nov
Confirm Project	■											
Develop and Organize		■										
Identify & Recruit Patients			■									
Intervention & Data Collection			■	■	■	■	■	■	■			
Analyze Data											■	
Obtain Feedback												■

Appendix I
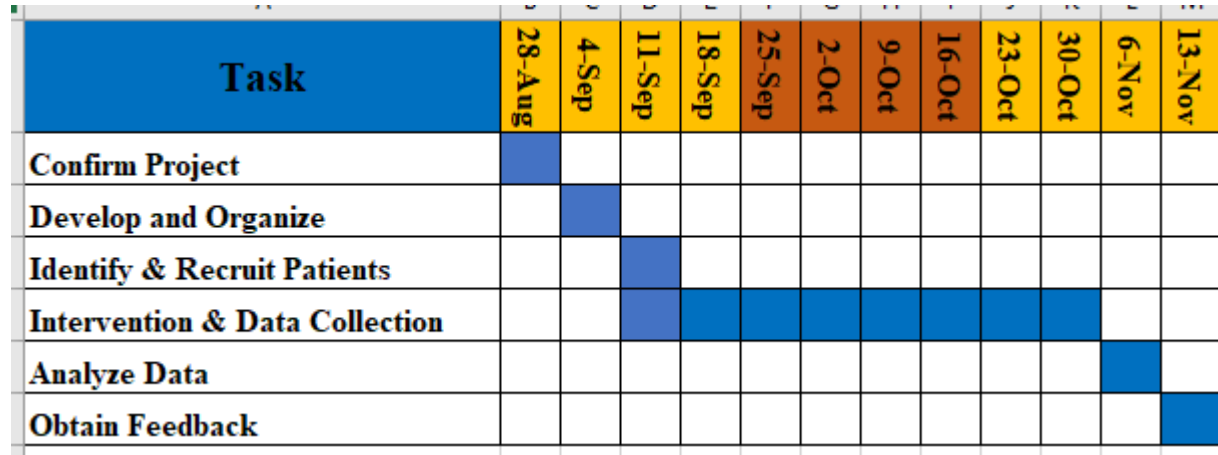
Frail Scale

Frail Scale

_____

Please ask the participant the following questions (not a self-assessment):

Age: _____

Fatigue: How much of the time during the past 4 weeks did you feel tired?

1 = All of the time, 2 = Most of the time, 3 = Some of the time, 4 = A little of the time, 5 = None of the time.

Responses of "1" or "2" are scored as 1 and all others as 0.

Score_____

Resistance: By yourself and not using aids, do you have any difficulty walking up 10 steps without resting?   1 = Yes, 0 = No.

Score_____

Ambulation: By yourself and not using aids, do you have any difficulty walking a couple of blocks (e.g. several hundred yards)?   1 = Yes, 0 = No.

Score_____

Illnesses: Did a doctor ever tell you that you have [illness]? How many (see list below): _____

The total illnesses (0–11) are recoded as 0–4 = 0 and 5–11 = 1.

The illnesses include hypertension, diabetes, cancer (other than a minor skin cancer), chronic lung disease, heart attack, congestive heart failure, angina, asthma, arthritis, stroke, and kidney disease.

Score_____

Loss of weight: How much do you weigh? _____[current weight]

One year ago in May of 2018, how much did you weigh?_____[weight 1 year ago]"

Percent weight change is computed as: [[weight 1 year ago - current weight]/weight 1 year ago]] * 100.

Percent change > 5 (representing a 5% loss of weight) is scored as 1 and < 5% as 0.

Score_____

Total Score: _____

A score of **0** represents robust health status

1-2: Pre-frail

3-5: Frail

Frailty has been significantly associated with malnutrition.

If the participant screens as Pre-frail or Frail, ask if they have been admitted to the hospital in the past 3 months (Y/N)? _____

Woo, Jean et al. Frailty Screening in the Community Using the FRAIL Scale. *Journal of the American Medical Directors Association* , Volume 16 , Issue 5 , 412 – 419

Morley JE, Malmstrom TK, Miller DK. A simple frailty questionnaire (FRAIL) predicts outcomes in middle aged African Americans. *J Nutr Health Aging.* 2012;16(7):601–608.

Celia V. Laur, Tara McNicholl, Renata Valaitis, Heather H. Keller. Malnutrition or frailty? Overlap and evidence gaps in the diagnosis and treatment of frailty and malnutrition. *Applied Physiology, Nutrition, and Metabolism*, 2017, 42:449-458,

Appendix J

Frail Scale Approval

Nadya Panjwani <nadyapanjwani03@gmail.com>   Tue, Jun 20, 2:00 PM (10 days ago)
to michelle.burwell@mass.gov

Dear Ms. Burwell,

My name is Nadya Panjwani and I am a DNP student from Texas. I came across this screening tool from Mass.gov website and want to use it for a project to screen patients at my hospital. May I use it?

https://www.mass.gov/doc/frail-scale-screening-tool/download

 Thank you,

Nadya Panjwani, MSN, NP-C
DNP Student
University of Texas at Arlington

Burwell, Michelle (EOTSS)   Jun 26, 2023, 7:10 PM (4 days ago)
to me

Hi Nadya, apologies for the delayed response. Yes, you may use it as long as you cite the Commonwealth of Massachusetts in any publication or posting etc.

Thanks!

Michelle

STEP SQUAD BUNDLE IN OLDER ADULTS

Appendix K

Identification Code

	A	B
1	**Participant**	**Code**
2	000	1-11-09
3	001	
4	002	
5	003	
6	004	
7	005	
8	006	
9	007	
10	008	
11	009	
12	010	

STEP SQUAD BUNDLE IN OLDER ADULTS

Appendix L

Database

	Patient	Gender	Age	Ethnicity	Caregiver	Nutritionist referral	PT referral	OT referral	Pre Frail Scale	Post Frail Scale	Walking Log Results	SDM Goals
2	000	0	69	0	0	0	0	0	3	3	0	0
3	001											
4	002											
5	003											
6	004											
7	005											
8	006											
9	007											
10	008											
11	009											
12	010											

Appendix M

Legend

	A	B
1	Variable	Variable Information
2	ID	Participant ID number
3	Gender	0= male; 1= female
4	Age	Age at enrollment (years)
5	Ethnicity	0= white, 1= black, 2 = hispanic, 3= asian
6	Ambulory assistive device	0= no, ambulates independently; 1= uses assistive device to ambulate
7	Caregiver at bedside	0= with caregiver at bedside; 1= without a caregiver at bedside
8	Referral to Nutritionist	0= referral to nutritionist, 1= no referral to nutritionist (declined)
9	Referral to PT	0= referral to physical therapist; 1= no referral to physical therapist (declined)
10	Referral to OT	0= referral to occupational therapist; 1= no referral to occupational therapist (declined)
11	Pre Frail Scale (Pre-test)	Sum total score of Frail scale at enrollment
12	Post Frail Scale (post-test)	Sum total score of Frail scale at discharge
13	Walking log results	0= walked daily, 1= walked three or four days per week, 2= walked one or two days per week
14	Shared decision making goals	0= complaince through goals, 1= noncompliance with goals

STEP SQUAD BUNDLE IN OLDER ADULTS

Appendix N

Frail Scale Scores and Legend

Questions	Frail Scale Questionnaire											
	Item 1		Item 2		Item 3		Item 4		Item 5		Total Score	
Participant	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
000	0	1	1	1	0	0	0	1	0	0	1	3
001											0	0
002											0	0
003											0	0
004											0	0
005											0	0
006											0	0
007											0	0
008											0	0
009											0	0
010											0	0

STEP SQUAD BUNDLE IN OLDER ADULTS

Frail Scale Item Legend							
Item 1	Fatigue: 1= all the time, most of the time, 0= sometimes, little of time, none of the time						
Item 2	Resistance (difficulty with staires): 1= yes, 0= no						
Item 3	Ambulation (difficulty walking): 1= yes, 0= no						
Item 4	Illnesses (total): 5-11= 1, 0-4= 0						
Item 5	Weight loss: > 5% weight loss= 1, <5% weight loss= 0						
Total Score	0= robust health status, 1-2= Pre-frail, 3-5: frail						

Appendix O

Human Subjects Training Certificate

Human Subjects Protection Training (HSP): Training Completion Certificate

This document certifies that Nadya Panjwani completed the training entitled "Human Subjects Protection Training (HSP)" on July 11th, 2023.

Training Start time: 07/11/2023 10:23 AM; Training End Time: 07/11/2023 11:59 AM

The Office of Regulatory Services   regulatoryservices@uta.edu   817-272-3723

Appendix P

Frail Scale Permission Letter

From: John Morley <john.morley@health.slu.edu>
Sent: Thursday, July 20, 2023 3:28 PM
To: Panjwani,Nadya H <nhpanjwa@mdanderson.org>
Subject: [EXTERNAL] Re: Frail scale

You are welcome to use the FRAIL. There is no copyright John

From: Panjwani,Nadya H <nhpanjwa@mdanderson.org>
Sent: Thursday, July 20, 2023 2:25 PM
To: John Morley <john.morley@health.slu.edu>
Subject: [External] Frail scale

Good afternoon, Dr. Morley,

My name is Nadya Panjwani and I am a DNP student. I read your article on frailty in African Americans. I am doing a project on frailty at my workplace and would like to use the Frail scale. Can I have permission to use it?

Thank you,

Nadya Panjwani, MSN, NP-C, APRN

Appendix Q

SWOT Analysis Table

Strengths	Weaknesses
Hospital supports initiatives led by advanced practice registered nurses (APRNs). Educational department leaders allow for in-services for teaching staff. Large conference rooms available for presentations. Staying active during hospitalization is encouraged by the primary teams. Preventing frailty, especially falls, is a big nursing endeavor.	Lack of knowledge about frailty among patients. Patients can be overwhelmed at the time of admission. Patients can be too fatigued to keep up with ambulating. Patients can have toxicity from chemotherapy preventing them from staying active. Patients can have nausea from chemotherapy preventing them to eat properly.
Opportunities	Threats
Caregivers can be a source of encouragement for patients to ambulate and stay active. Medical team can prescribe antiemetics to combat nausea.	Less patients being admitted for autologous stem cell transplant. Physical therapist, occupational therapist, and nutritionist being short staffed. Mornings are busy with primary team rounds to educate patients.

Appendix R

Risk Management Plan

Risk Management Plan

Risk	Probability	Impact	Mitigation of Risk	Contingency Plan
Lack of knowledge about frailty among patients.	Likely	Moderate	Encourage caregivers to be available during education sessions for retention of material. Ensure patient is awake and feeling well prior to start of teaching.	Print extra copies on educational handouts to provide to patients to keep as reference.
Patients are overwhelmed at the time of admission.	Occasional	Moderate	Wait until patient is settled into the hospital prior to initiating education.	Follow-up again, a day after teaching, to ensure patient understood the information.
Patients can be too fatigued to keep up with ambulating.	Likely	Critical	Ensure adequate hemoglobin levels prior to educating patients and encouraging ambulation.	Provide educational handouts for reference and encourage patients to ambulate once feeling better and less fatigued.
Patients can have toxicity from treatment preventing them from staying active.	Likely	Critical	Ensure patient asks for as needed medications, such as antiemetics or antidiarrheals, prior to starting their physical activity.	Allow time for patient to feel better prior to initiating education about the project. Speak to bedside nurse if patient requires intervention to feel better.
Patients can have nausea preventing them to eat properly to aid in recovery.	Likely	Moderate	Encourage patients to ask for antiemetics prior to eating.	Collaborate with the nutritionist who is consulted to ensure foods recommended are easy to eat/drink for patients that have undergone chemotherapy.
Less patients being admitted for autologous stem cell transplant.	Occasional	Critical	Collaborate with the admission coordinator to gauge how many patients are expected to be admitted.	Allow ample time during the project for recruitment of patients.
Physical therapist, occupational therapist, and nutritionist are short staffed.	Occasional	Moderate	Collaborate with physical therapist, occupational therapist, and nutritionist (already part of project leader's job role) to ensure patient gets evaluated.	Allow time for consult services to see patients per their schedule.
Mornings are busy with primary team rounds to educate patients.	Likely	Moderate	Collaborate with patients and bedside nurses, making them aware that project leader will follow up with them after morning rounds.	Allow ample time for morning rounds to finish and ensure patient is ready to listen and understand educational material.

STEP SQUAD BUNDLE IN OLDER ADULTS

Appendix S

Organizational Change Readiness Assessment

Organizational Change Readiness Assessment

This assessment is designed to reveal your organization's ability to change when change is needed. Read the following questions and indicate your level of agreement with each statement using the following scale.

5 We are excellent at this. I am confident we would succeed.
4 We are good at this. I believe we can manage.
3 We are okay at this. I believe we could manage.
2 We need help with this. I don't think we would manage very well.
1 We have problems with this. I don't think we can do this.

Sponsorship regularly comes from a senior level such as the President.	5
Leadership is provided from the highest senior levels that have direct responsibility for change.	5
There is a strong sense of urgency for change from the senior staff.	5
The organization has a culture that emphasizes continues improvement.	5
Any planned change initiative has clear objectives that are consistently communicated.	4
Management strongly believe the future should look different from the past.	4
Management has a clear vision of the future and can mobilize the necessary resources.	5
The change effort connects to other major initiatives underway or being planned within the organization.	5
Management is willing to change critical business processes.	4
All employees are supported when taking risks, being innovative and looking for new solutions.	5
The organization has successfully implemented major changes in the past 12 months.	5
Employees enjoy working in the organization and the level of individual responsibility and team spirit is high.	4
The organization is always experimenting and new ideas are easily implemented.	5
Organizational decisions use a participatory process, are made quickly and it's clear when the decision is made.	4
Employees have been extensively cross trained and have a good understanding of each others role in the organization	4
Employees view change as an opportunity	5
Employees work across boundaries with little trouble	4
Total Points	73

STEP SQUAD BUNDLE IN OLDER ADULTS

Appendix T

Budget

INCOME SUMMARY

Total Annual:		$400,000.00
Total Monthly:		$33,333.33

Income	Annual	Monthly
Department Funds	$400,000.00	$33,333.33
Total	**$400,000.00**	**$33,333.33**

EXPENSES SUMMARY

Total Annual:		$380,000.00

- Project Leader
- Physical Therapist
- Occupational Therapist

Total Monthly:		$31,666.67

Expenses	Annual	Monthly
Project Leader	$125,000.00	$10,416.67
Physical Therapist	$95,000.00	$7,916.67
Occupational Therapist	$95,000.00	$7,916.67
Nutritonist	$65,000.00	$5,416.67
Total	**$380,000.00**	**$31,666.67**

DISCRETIONARY SUMMARY

Total Annual:		$5,500.00

- Leader travel expenses
- Project handout copies

Total Monthly:		$458.33

Discretionary Expenses	Annual	Monthly
Leader travel expenses	$2,500.00	$208.33
Project handout copies	$1,000.00	$83.33
Parking Expenses	$2,000.00	$166.67
Total	**$5,500.00**	**$458.33**

SAVINGS SUMMARY

Total Annual:		$14,500.00
Total Monthly:		$1,208.33

Savings	Annual	Monthly
Cash Reserves	$14,500.00	$1,208.33
Total	**$14,500.00**	**$1,208.33**