

ASSESSMENT OF THE IMPACT OF PATIENT/FAMILY VIDEO VISITATION ON
DEPRESSION SEVERITY SCORES AT A HOSPITAL-BASED SKILLED NURSING
FACILITY

A Doctor of Nursing Practice Project Report

by

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Submitted in Partial Fulfillment of the Requirements for the Degree of

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This Doctor of Nursing Practice Project Report meets the standards for scope and quality of Texas A&M University-Corpus Christi College of Nursing and Health Sciences and is hereby approved.

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August 2021

DEDICATION

I would like to dedicate this work to those we loved and lost to COVID-19 and the patients and family members impacted by COVID-19 restrictions.

ACKNOWLEDGEMENTS

I would like to express my sincere gratitude to Dr. Loika (Chair) for her constant support of this project and through every stage of the program. I would also like to thank Dr. Murphy (project advisor) and Dr. Seidel (GFR) for their support. I would not have been able to complete this project or this program if it was not for the support of my parents, 2 daughters, and my family which constantly reminded that the “sky’s the limit” and “failure is not an option”; without your support this would be impossible for me to complete. I would also like to thank my healthcare organization for their support and desire to grow the profession of nursing by supporting education. Lastly, I would like to say, “WE did it”.

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ABSTRACT

Background: The COVID-19 global pandemic resulted in regulations severely restricting patient visitation in Skilled Nursing Facilities (SNF). Lack of family visitation can have a negative impact on patients such as loneliness, social isolation, and feelings of depression. Therefore, prompting this facility act to reduce the barriers for this, often fragile, patient population, at high risk for depression. **Purpose:** The purpose of this quality improvement (QI) project was to improve the resources provided by a hospital-based SNF to prevent or lessen depression in patients, related to restricted family visitation, through implementation of a patient-family video visitation initiative. **Methods:** This QI project used a before and after design to implement a technology-based patient/family video visitation initiative aimed at preventing or decreasing depression severity in patients cared for in a hospital-based SNF during the COVID-19 pandemic. Video visitation was implemented using an I-pad and the Microsoft Teams platform to allow for face-to-face visitation. PHQ-9 scores and patient/family satisfaction with video visitation were measured before and after the intervention. **Conclusion:** The initiation of a technology-based, patient-family visitation resource by the SNF resulted in patients scoring in the minimal depression category before and after the intervention, supporting the use of video visitation to prevent depression or worsening depression due to prolonged isolation of patients. The initiative illuminated the organizational and feasibility factors to be considered and mitigated when introducing new technology and processes into an already strained health care setting. Lessons learned and similar positive outcomes, can be expanded to many health settings faced with long lengths of patient stays where family members have regulatory, organizational, or personal barriers to visitation.

Improving Depression Severity Scores with Patient/Family Video Visitation at a Hospital-Based Skilled Nursing Facility

INTRODUCTION

Currently, more than two million patients are living in long-term care facilities (LTC): nursing homes (NH), skilled nursing facilities (SNF), and assisted living facilities within the United States (Hado & Friss Feinberg, 2020). Long-term care patients are more likely to experience feelings of loneliness and social isolation, which can be associated with feelings of depression (Noone et al., 2020). Clinical depression is the most common mental health disorder within LTC (Yuan et al., 2019). Close to 50% of patients admitted to NHs will have a diagnosis of depression, and 9.2% to 21.6% of those not experiencing depression upon admission will eventually be diagnosed with depression depending on their length of stay (Yuan et al., 2019). Patient visitors play a vital role in the emotional support of patients (Nuss et al., 2014). The lack of in-person visits can result in loneliness, a lack of psychological well-being and belonging for patients, which can lead to anxiety, depression, and poor patient outcomes (Miller, 2019). On March 13th, 2020, LTCs in Texas restricted all in-person visitation from non-medical visitors, based on requirements from the Centers for Medicare and Medicaid Services (CMS) to slow the spread of COVID-19 (Texas Health and Human Services, 2020). The lack of family visitation has a high potential for negative impact on patients in LTC; therefore, we it was imperative to act to reduce the barriers to in-person visitation with the implementation of video visitation for this population.

Background and Significance

While CMS encouraged alternative methods for visitation, many LTCs did not have existing alternative methods already in place, leaving patients unable to see their family members

during critical times (Texas Health and Human Services, 2020). The increased restrictions on patient visitation, especially in LTC facilities, coupled with already existing barriers, spurred the need to seek other options for visitation. When family members were unable to visit in person, due to barriers, video visitation presented the potential to decrease the anxiety and stress of patients and family members and can have a positive impact on patients and family members well-being (Robben et al., 2016).

Hospital-based SNFs have stays averaging 19-28 days, often following a prolonged stay at an acute care hospital. Depression can develop as part of patients experiencing a long hospital stay which can be further intensified by a lack of family visits (Miller, 2019). Many patients admitted to SNFs have already experienced multiple hospital stays, placing additional stress on the patient and family members. These family members often need to return to a level of normalcy for themselves but feel obligated to see their family members daily. Stress levels of family members can be increased, due to additional responsibilities along with employment requirements, travel time, and the desire to visit their family members (Rhoads et al., 2015). The implementation of video visits has assisted families in reducing the feelings of obligation while supporting the patient and enhanced the patient care experience along with decreasing the patients' feelings of loneliness and depression (Nicholas, 2013).

Review of the Literature

Themes identified in the research involved needed support for family involvement with patients, visitation barriers experienced by family members, and benefits of video visitation (Bramble et al., 2011; Chang et al., 2015; Creighton et al., 2017; Lao et al., 2019; Monroe & Wofford, 2017; Muller et al., 2017; Puurveen et al., 2018; Roberts & Ishler, 2018; Miller 2019; Kerr et al., 2017; Rhoads et al., 2015; Robben et al., 2016). Family involvement is

multidimensional, and it includes not only visitation, but also emotional support, care, advocacy, and possible assistance in personal care that can support patients' safety needs and assist in the maintenance of human dignity (Lao et al., 2019). Miller (2019) completed a systematic review of 15 articles that identified psychological barriers to visitation including: uncomfortable when visiting, emotionally overwhelmed, guilt, employment/financial barriers, proximity barriers, and access to transportation barriers. In the current worldwide pandemic situation, nursing facilities should promote alternatives for residents and family members to stay connected--video visitation is a possible option (Hado & Friss Feinberg, 2020).

Video visitation can increase the health of patients, provide emotional support, and increase thoughts about healing (Rios et al., 2020). Several studies addressed video visitation, but very few focused on the LTC population. A study conducted in a Neonatal Intensive Care (NICU) Unit setting found that multiple roles to include employment, caregiver, and other duties can lead to fewer family visits (Rhoads et al., 2015). Robben et al. (2016) in a longitudinal interventional study involving video streaming in an animal intensive care unit found that video visitation reduced stress and anxiety of family members ($p < 0.001$). Chips et al. (2017) conducted a systematic review of e-interventions in older adults and reported that internet-supported interventions can significantly decrease feelings of loneliness ($p=0.037$) and alleviate the social isolation of patients in LTCs. Additionally, in a qualitative study Kerr et al. (2017) explored views on the impact of webcam technology where family members reported feeling closer with webcam usage and felt the technology increased family members' ability to address their barriers within the NICU setting. The above evidence supports that patients' quality of life can improve with family communication and video visitation.

Description of the Problem

A qualitative organizational assessment consisting of interviews with leadership, staff, and patients regarding visitation options was completed at the selected hospital based SNF. The selected SNF was a 23-bed unit within a 48-bed Long Term Acute Care Hospital (LTAC) in a large not-for-profit integrated healthcare system. The directors of the following departments: nursing informatics, corporate compliance, regulatory, and vice president of critical care services were interviewed to discuss options available to aid the current No In-Person Visitation regulation. No options or resources were immediately available, but the team was open to suggestions and willing to support visitation options in compliance with federal, state, local, and hospital regulations and policies.

During the organizational assessment of the problem, a patient admitted for wound care later learned her cancer had returned and invaded the wound this time, leaving her with a terminal diagnosis. The patient decided to return home under hospice care, focused on quality of life and maintaining comfort. The patient had a cell phone but not a smartphone, i.e., her phone had not internet access or software application capability, which was problematic as her cell phone did not possess the technology to allow for video visitation. The patient's three adult children lived out of state, so while she was able to speak with them on the phone, she was unable to see them and had little social support. However, weekly Zoom calls were offered on a personal device provided by the nurse director, as an alternative option to visitation. The patient was able to have all three adult children on the same call. This situation supported that patients desire and may greatly benefit from face-to-face visits to feel connected and prevent feelings of loneliness (Monin et al., 2020).

This patient's experience elevated the idea of video visitation as an unidentified need regardless of the ongoing global pandemic. This LTAC was a small hospital and, many of our patient care initiatives involve an interdisciplinary approach as all service lines have an impact on patient care and a desire to improve care. Based on the current state and federal regulations limiting or completely preventing visitation and knowledge gained from the above-described patient's experience, hospital leadership and the SNF staff offered support to implement video visits for patients and family members to promote their well-being and satisfaction. The qualitative organizational assessment data determined gaps in practice and was used to develop a plan to implement video patient/family visitation in the SNF.

Conceptual Frameworks

The implementation of video visitation not only changed patient care but also created a change in workflow for frontline staff members. Rogers' Diffusion of Innovation Theory, a behavioral change model (LaMorte, 2019), guided the quality improvement (QI) project in gaining momentum. The Plan-Do-Study-Act (PDSA) cycle was utilized to evaluate, analyze, and redesign the intervention as needed and to determine the impact of the video visitation on patient well-being.

The Diffusion of Innovation Theory was developed by E. M. Rogers and includes five adopter categories: innovators, early adopters, early majority, late majority, and laggards (LaMorte, 2019). Diffusion of new ideas and change occurs in five stages: knowledge, persuasion, decision, implementation, and confirmation (Kaminski, 2011). While the process of video visitation was innovative, there are factors that Rogers addressed that can influence adoption: relative advantage, compatibility, complexity, trialability, and observability (Lamorte, 2019). The innovators and early adopters adjusted and welcomed video visitation, but the late

majority and laggards needed to see the benefits of video visitation and a lack of workflow disruption (Melnik & Fineout-Overholt, 2019). Please see Appendix A for the project conceptual framework.

The underlying framework for this QI project was the PDSA cycle, which was developed by W.E. Demming as a modification of W. Shewhart's Plan-Do-Check-Act cycle (Zaccagnini & White, 2017). The cycle is based on four stages: plan, do, study, and act, as part of action-orientated learning (Melnik & Fineout-Overholt, 2019). The initial step was to plan the implementation of video visitation. Video visitation was established, and feedback was obtained from patients and family members as part of the study stage. Information was obtained on the quality of video and sound, overall satisfaction with video visitation, and suggestions offered on how to improve the process. Actions were taken from the feedback provided, to evaluate if modifications were needed to improve the process before the implementation of the next PDSA cycle. Frontline staff members were involved in the PDSA cycles to allow for debriefing and time to offer their suggestions on how to improve the workflow interruptions that occurred. Please see Appendix B for the project PDSA cycle.

Project Statement and Project Aims

The purpose of this QI project was to improve the resources provided by a hospital-based SNF to prevent or lessen depression in patients, related to restricted family visitation, through implementation of a patient-family video visitation initiative. The clinical question guiding this QI project was: In a hospital-based skilled nursing facility located in Temple, Texas, does implementation of a patient/family video visitation initiative prevent or improve patient depression severity scores in a 12 week- time period?

The primary goal of the project was to prevent depression or improve existing depression in participants as evidenced by a baseline, two-week, and discharge Patient Health Questionnaire-9 (PHQ-9) score ≤ 4 , indicating minimal depression, or at least a 2-point decrease in PHQ-9 score from pre-intervention to discharge, if baseline score was ≥ 4 , indicating mild to severe depression (Kroenke et al., 2001). Secondary goals of the project included: (1) identifying barriers and benefits of the video visitation as perceived by patients and family to include overall satisfaction, as evidenced by 3.75 overall satisfaction score on the Patient/Family Barriers and Benefits Questionnaire (BBQ) by the end of the project; and (a) increasing staff members' understanding of the PHQ-9 evidenced by a score on the PHQ-9 Knowledge Test of $>75\%$ following the educational module presented to staff; and (b) overall satisfaction with PHQ-9 educational module teaching methods evidenced by a score of >4 on the course evaluation.

Implementation of a video visitation initiative aligns with the American Association of Colleges of Nursing (AACN) DNP Essential III: Clinical Scholarship and Analytical Methods for Evidence-Based Practice (AACN, 2006). Essential III relates to the implementation of video visitation by translating evidence from nursing practice into this hospital-based SNF to promote patient-centered care (AACN, 2006). This project also aligns with the American Organization for Nursing Leadership (AONL) Nurse Executive Competency Business Skills: Information Management and Technology (AONL, 2015). Implementation of video visitation relates to the AONL essential five by implementing new technology to support improvement in patient care due to visitation restrictions (AONL, 2015).

METHODS

Project Design

This project was a QI initiative, utilizing a before and after design to implement a patient/family video visitation initiative aimed at preventing or improving depression in isolated patients in a hospital-based SNF, obtaining patient and family perceptions regarding the video visitation option, and improving staff knowledge on use of the PHQ-9. This QI project was conducted in a large healthcare system at a 23-bed hospital-based SNF in Temple, Texas. The health care system has a focus on serving others and the values of serving faithfully, acting honestly, never settling, and we're all in it together (BSWH, 2021). While the SNF was the only unit impacted by prolonged state and federal restrictions on in-person visitation, the system supported this initiative as a focus on serving our community and always seeking alternatives to barriers in care by never settling.

Potential barriers that could have affected the success of this improvement project included competing priorities by leadership and frontline staff, negative impact on nursing and allied services workflow, dissenting staff attitudes, lack of technology in family members, lack of understanding of the PHQ-9 scale by patients and staff, and COVID-19 rules and regulations. These factors were mitigated by the education of interdisciplinary health teams and project team members, shadowing project team members to assess the impact of workflow, and the development of instructions for family members. Further details to include countermeasures and resources are included in Appendix C.

Participants and Recruitment

This project plan was reviewed by the Texas A&M University-Corpus Christi Research Compliance Office and received a determination of "Not Human Subjects Research" and permission to proceed as a Quality Improvement project. (See Appendix D.) The project plan was also reviewed by the participating health care organization's Institutional Review Board for

project/study classification and received a determination of “Not Human Subjects Research” and permission to proceed as a Quality Improvement project. (See Appendix E.) Personal Health Information (PHI) was collected for project purposes only following the execution of a HIPAA Confidentiality Agreement from the facility. (See Appendix F.) A letter of support was provided by the Vice President of Critical Care Services at the hospital, agreeing to fully support the project and acknowledge the collection of PHI for project purposes only. (See Appendix G.)

A convenience sample was obtained by recruiting from all patients already admitted and patients admitted during the first eight weeks of the project. Patients were approached by the admitting nurse during admission or when the project started and presented with the details of the project. Participants were included if they: (1) had a lack of access to video visitation technology; and (2) were interested in participating. Participants were excluded if they were unable to rate their satisfaction due to cognitive impairment or lacked a family member appointed representative to rate satisfaction.

Intervention

This project used technology to implement patient/family video visitation. At the time of implementation, family members were unable to visit patients due to state and federal restrictions. The use of technology to implement video visitation can reduce family member anxiety and can prevent an increase in depression severity scores of patients. The project team included the project director (PD) who was the nurse director of the SNF, the Minimum Data Set (MDS) coordinator, and all licensed direct care nursing staff, who were all employed by the hospital and worked in the SNF.

Before implementation of the video visitation initiative, all licensed day shift staff (RN/LVN) participated in a small classroom setting PHQ-9 education module developed and provided by the PD, the author of this report. The goal of the education module was to increase staff understanding of the PHQ-9, the reason for administering the PHQ-9, and tips for collecting meaningful PHQ-9 data using standardized CMS resources. A pre-and post-test was completed as well as a course evaluation. The MDS coordinator was involved with the pre-intervention education to include research supporting video visitation and instructions on obtaining the PHQ-9.

The charge nurses identified patients eligible to participate in the intervention upon admission or at the time of project implementation using the data collection sheet. The PD contacted family members of patients who were agreeable to the intervention and met criteria based on the data collection sheet for their agreement in participation in the intervention and scheduled them for visits. The PD was responsible for collecting the pre- and post-intervention data to include the PHQ-9 scores.

The PD also assisted with the patient video visitation intervention. The video visitation intervention was completed by using an I-pad on a rolling stand for easy transport and at the end of each visit the equipment was cleaned prior to returning to the PD's office. Microsoft Teams platform was utilized to complete the video visit as required by the health care system for patient information security. The I-pad was provided by the health care system as part of COVID-19 technology initiatives and their support for the project. All visits were set-up by the PD or SNF licensed staff to ensure connection and patient / family audio and video working without difficulty prior to leaving the patient / family alone for the video visit. Please see a timeline in

Appendix H for a visual diagram of the time it took to conduct each part of this project from the collection of organizational assessment data to the dissemination of results.

Data Collection

The charge nurse and the PD collected initial data to include date of admission, age, race, and gender, upon admission and before the project was started for patients already admitted on the unit. They also collected the PHQ-9 score (Appendix I) on admission or before the start of the project, 2 weeks after the intervention, and at discharge. The patient and family members completed a barrier and benefits survey (BBQ)(Appendix J) after the initial video visitation session. This survey was administered by the PD.

Measurement Tools

This project used the PHQ-9 Resident Mood Interview and a Benefits and Barriers Questionnaire (BBQ) to measure depression severity and patient /family overall satisfaction with video visitation, respectively. The PHQ-9 is a condensed version of the Primary Care Evaluation of Mental Disorders (PRIME-MD) diagnostic instrument, involving nine questions that can assist in the diagnosis of depression severity (Kroenke et al., 2001). The PHQ-9 Resident Mood Interview is collected upon admission and daily on SNF patients as part of the SNF minimum data set (MDS) required for SNF Medicare reimbursement. Kroenke et al. (2001) established external, construct, criterion, and diagnostic validity along with internal reliability for the PHQ-9 scale, as part of two studies (Spitzer et al., 1999; Spitzer et al., 2000), involving over 6,000 patients with primary care patients; Belanger et al., (2019) established internal reliability in NH patients. The PHQ-9 focuses on nine depressive symptoms and answers are based on the frequency that the patient has experienced them in the last two weeks. A score for the PHQ-9 ranges from 0-27, with categories of depression ranging in point increments of four ranging from

minimal to severe depression (Belanger et al., 2019). The PHQ-9 tool can be used without copyright restrictions and at no charge by Pfizer (2010).

The BBQ used a five-question Likert scale-based questionnaire with one open-ended question provided to both patient and family members after the initial video visitation session developed by the PD using face validity. The BBQ assessed the ease of use of technology, quality of audio and video, and overall satisfaction of the video visitation experience. A 1-5 Likert-scale was used with 5 being excellent and 1 being poor. The open-ended question focused on additional feedback as an opportunity to obtain qualitative data to support the intervention. The survey allowed the opportunity to assess both benefits and barriers that can be improved along with assessing the overall satisfaction.

The tool used for learner evaluation of the PHQ-9 innovative teaching module was the PHQ-9 pre-and post-test (Appendix K.) It was administered before and after the educational module to measure understanding of the material. The pre-and post-test consisted of five open ended questions based on the innovative teaching module learning objectives as designed by the PD (Bastable, 2019). Staff also completed a PHQ-9 Course Evaluation designed by the PD to provide feedback on the PD and provided educational follow-up related to the PHQ-9 (Appendix L). The PHQ-9 Course Evaluation consisted of five question using a Likert scale of 1 (strongly disagree)-5 (strongly agree) and two open questions that allowed for data collection of qualitative data regarding the PHQ-9 course and the instructor, the PD.

Data Analysis

Demographic data collected included patient: age, gender, race, admission and discharge date, number of video visits, and length of stay. Descriptive statistics were used to analyze the demographic data.

Aim #1: To determine if Aim 1 was met the mean baseline PHQ-9 were compared to the 2 weeks post-intervention mean scores, and the discharge mean scores using descriptive statistics.

Aim #2: To determine if Aim 2 was met the BBQ survey scores were evaluated between patient and family using descriptive statistics. Thematic analysis will be used to determine themes across the responses obtained from qualitative data

Aim #3: To determine if Aim 3 (a) was met the PHQ-9 pre-test scores were compared to the PHQ-9 post-test scores using descriptive statistics. To determine if Aim 3(b) was met the PHQ-9 course evaluation scores were evaluated using descriptive statistics; thematic analysis will be used to determine themes across the responses obtained from qualitative data

RESULTS

Implementation

This project began with an identified need to provide creative opportunities for patients and families to connect during a visitor-restricted global pandemic. The current problem identified a need to bridge the gap in both patient and family satisfaction with the use of virtual patient/family visits which had the potential to enhance the patient care experience (Nicholas, 2013). The results from changes in practice are summarized in Appendix M and discussed in detail below. Patient / Family video visitation was implemented in the SNF on February 22nd, 2021, a week later than anticipated related to a historic state of disaster snowstorm in the area. Before implementation, an educational in-service was provided to all licensed staff in the unit on the PHQ-9 assessment to include the importance of the assessment and tips for proper collection. During the in-service, the project plan was reviewed, and staff identified a need to have copies of

the PHQ-9 to complete the assessment while sitting with the patient instead of standing at the computer.

At the time of intervention implementation, visitation within the SNF was still restricted to no in-person visits under CMS and state guidelines related to COVID-19. It was quickly identified that family members had difficulties with the using of Microsoft Teams, so instructions were created with images for guidance (Appendix N). Initially, the staff was excited about the intervention. Due to staff turnover and COVID-related staffing shortages the PD, undertook the task of scheduling and initiating the video visits, accompanied with data collection. Licensed staff collected the patient intake data at the time of admission for all new patients. During week 5 of the project, we noted, a decreasing number of intake forms due to a change in charge nurses. The PD addressed the problem by including reminders. There was additional stress in the unit during the project window, due to two unexpected state surveys and changes in staff.

Outcomes

Of the 78 admissions during the project timeframe, 68 were subsequently excluded based on inclusion criteria; an additional 3 were excluded due to lack of participation from patients or family, therefore 7 patients participated in the project. The participants were 29% female and 71% male, and the average age was 66.42. The average length of stay was 39.7 days, and the 7 patients average 5 video visits during their stay. As shown in Appendix O, the demographic details are included for the intervention group.

Aim #1: The specific goal was to prevent depression or improve existing depression in participants as evidenced by a baseline, two-week, and discharge Patient Health Questionnaire-9 (PHQ-9) score ≤ 4 , indicating minimal depression, or at least a 2-point decrease in PHQ-9 score

from pre-intervention to discharge, if baseline score was ≥ 4 , indicating mild to severe depression. The goal was met. Six patients experienced no change in their baseline score of zero and one patient experienced an increase from zero to two, still aligning with minimal depression.

Aim #2: The specific goal was to maintain an overall patient/family satisfaction with video visitation greater than 3.75 on a 1 to 5 Likert scale on the BBQ by the end of the 3-month project. This goal was met. All patients and participating family members completed the BBQ resulting in an overall satisfaction mean score of 5. Two patients were unable to complete the survey due to their cognitive status. This goal was met. Themes identified by patients as part of feedback involved the enjoyment of seeing their family; themes identified by family members included enjoyment of seeing their family member and the importance of their visit to support the patient in healing. Results of the BBQ are included in Appendix P and Appendix Q.

Aim #3: The specific goals (a) were to improve the licensed nurses understanding of the PHQ-9 by 75% from baseline knowledge and (b) maintain an overall satisfaction with PHQ-9 educational module teaching methods as evidence by a score of >4 on the course evaluation. Before the completion of the PHQ-9 in-service, staff were administered a pre-test and provided the same post-test at the completion. The in-service resulted in a 91.6% improvement in the post-test score, as compared to the pre-test respectively, 98.3% ($SD=5.5$) and 6.7% ($SD=12.47$). The PHQ-9 educational intervention led to a significant increase in knowledge of licensed staff ($p < 0.001$). The PHQ-9 course evaluation resulted in a mean score of 4.9. Themes identified in the PHQ-9 course evaluation included satisfaction with increased knowledge. Both elements of this goal were met. Results of testing, course evaluation and comparison between pre-and post-test are displayed in Appendix R and Appendix S.

DISCUSSION

The purpose of this quality improvement (QI) project was to improve the resources provided by a hospital-based SNF to prevent or lessen depression in patients, related to restricted family visitation, through implementation of a patient-family video visitation initiative. Specific goals of the project included: preventing or lessening depression in patients, maintaining patient/family overall satisfaction with the use of video visitation, increasing baseline knowledge of the PHQ-9 by licensed staff, and achieving PHQ-9 course evaluation score. Six of the patients maintained their baseline score of zero and one had an increase of two remaining in the minimal depression category range of zero – four, therefore meeting the goal and supporting the need for video visitation. Video visitation was used as an intervention to prevent the development of depression that can occur in SNF patients, for that reason even patients with baseline score of zero were included in the intervention. It is important to note that the patient who had a slight increase, only participated in one video visit due to lack of family availability, compared to the average of five visits per patient. There was a substantial increase in baseline knowledge in the PHQ-9 for licensed staff and a high overall satisfaction by both patients and family members were reported with an overall satisfaction rate of five on a 1-5 Likert scale. However, it was the open-ended feedback that provided elements of family connection and support necessary for healing and possible correlation in the reduction of feelings on loneliness with larger sample size. The lack of change in PHQ-9 scores and overall patient/family satisfaction supported the need for expansion of virtual visitation in areas with long length of stays or barriers to visitation. As the nurse director and PD, the primary concern was for the patient's well-being, to include preventing depression, which is a sign of success for this SNF, the patients, and the health care system.

The utilization of patient/family video visitation is recognized as an effective intervention in reducing anxiety and loneliness which can lead to feelings of depression (Nichols 2013; Miller, 2019). Before COVID-19 there were minimal to no restrictions on patient-family visitation in healthcare facilities. However, at the beginning of the pandemic, NH's and SNF's were quickly required to develop strategies to promote alternative methods of visitation while maintaining the safety of their vulnerable populations to meet organizational and regulatory restrictions and requirements. In this QI project, patient/family video visitation was implemented while the patients PHQ-9 scores were monitored for improvement related to the intervention and patient/family overall satisfaction with the video visitation. Before video visitation was implemented, education was completed with all licensed staff on the PHQ-9 to ensure staff had a full understanding and were performing accurate data collection. Improvements were noted in licensed staff knowledge of the PHQ-9, patient PHQ-9 scores maintained from admission, and overall satisfaction was high by both patient and family.

A QI project conducted by Mendioloa et al. (2021), found that implementation of patient/family video conferencing for stroke patients affected by visitation restrictions was very beneficial and allowed for family members to support their loved ones during a time of illness and restriction, similar comments were made on our BBQ. Monin et al. (2020), found in their cross-sectional nationally targeted online survey that the emotional well-being of residents improved with synchronous communication with families and friends, like this project PHQ-9 results. Technology can be difficult at times depending on the user's knowledge and the use of video visitation is no different, McLeod & Bonsu (2018) found in their systematic literature review that video visitation often had low quality and was costly for some; these findings are

very different than what was found with the BBQ, which may be related to the detailed instructions for family members and test visits for those with difficulties.

Limitations

Limitations of this study include the small sample size, convenience sample design, COVID-19, and the opening of outdoor visitation. The hospital-based SNF was impacted by state and federal regulations associated with COVID-19 precautions during the QI project to include staffing shortages resulting in lack of engagement, workflow interruptions, numerous state infection-prevention focused surveys, weekly staff COVID testing, and difficulty navigating the Microsoft Teams application by both staff and family for visitation. Future recommendations include an increased number of staff participating to improve the reach of the program by including the identification of patients in need of video visitation and to assist with video visitation and development of workflow to reduce staff member interruptions.

Interpretation

The implementation of video visitation is not only a change in patient care but was a change in the workflow for frontline staff members. This change in workflow led to poor implementation by the nursing staff, resulting in the PD handling most of the scheduling and video visits. The innovators and early adopters adjusted and welcomed video visitation, but the late majority and laggards voiced a need to see the benefits of video visitation and improvement in the workflow before buying-in, which were both difficult to validate with the small sample size. Patients and family members feedback from the BBQ along with frontline staff members input will be used in future PDSA cycles to allow for debriefing and input on how to improve the workflow.

Aim outcomes were met for both overall satisfaction and increased licensed staff knowledge of PHQ-9, however, while PHQ-9 scores showed a lack of change, they also showed lack of increase as associated with the onset of depression. To continue with the intervention and ensure sustainability, the PD will continue to maintain an open dialogue with frontline staff to reduce workflow disruptions while working with informatics to ensure ease of technology use by patients and family members. While visitation restrictions are beginning to be lifted in SNF's due to the increased vaccinated population related to the ongoing pandemic, the need for video visitation will continue because of other barriers experienced by family members. An important factor to the sustainability of the program is the need to promote patient/family support with minimal financial impact to the hospital.

Conclusion and Implications

In conclusion, the results of this QI project suggest that the practice of patient/family video visitation has mutual benefits for both patients and their families. Although the COVID-19 restrictions led to this intervention, barriers to visitation will continue to exist for family members to promote socialization and family support. While the sample size was small, this QI project showed a benefit to both patients and family members with the use of video visitation, which can be expanded to any areas experiencing long lengths of stays or where family members have regulatory, organizational, or personal barriers to visitation. Consequently, video visitation did create some challenges related to disruptions in workflow for frontline staff and interdisciplinary team members which will need to be evaluated before implementation in other settings. Thus, further QI projects are warranted to evaluate necessary changes in workflow. Another aspect that deserves further investigation is different applications that can ease the use of video visitation technology for both the patients and family members.

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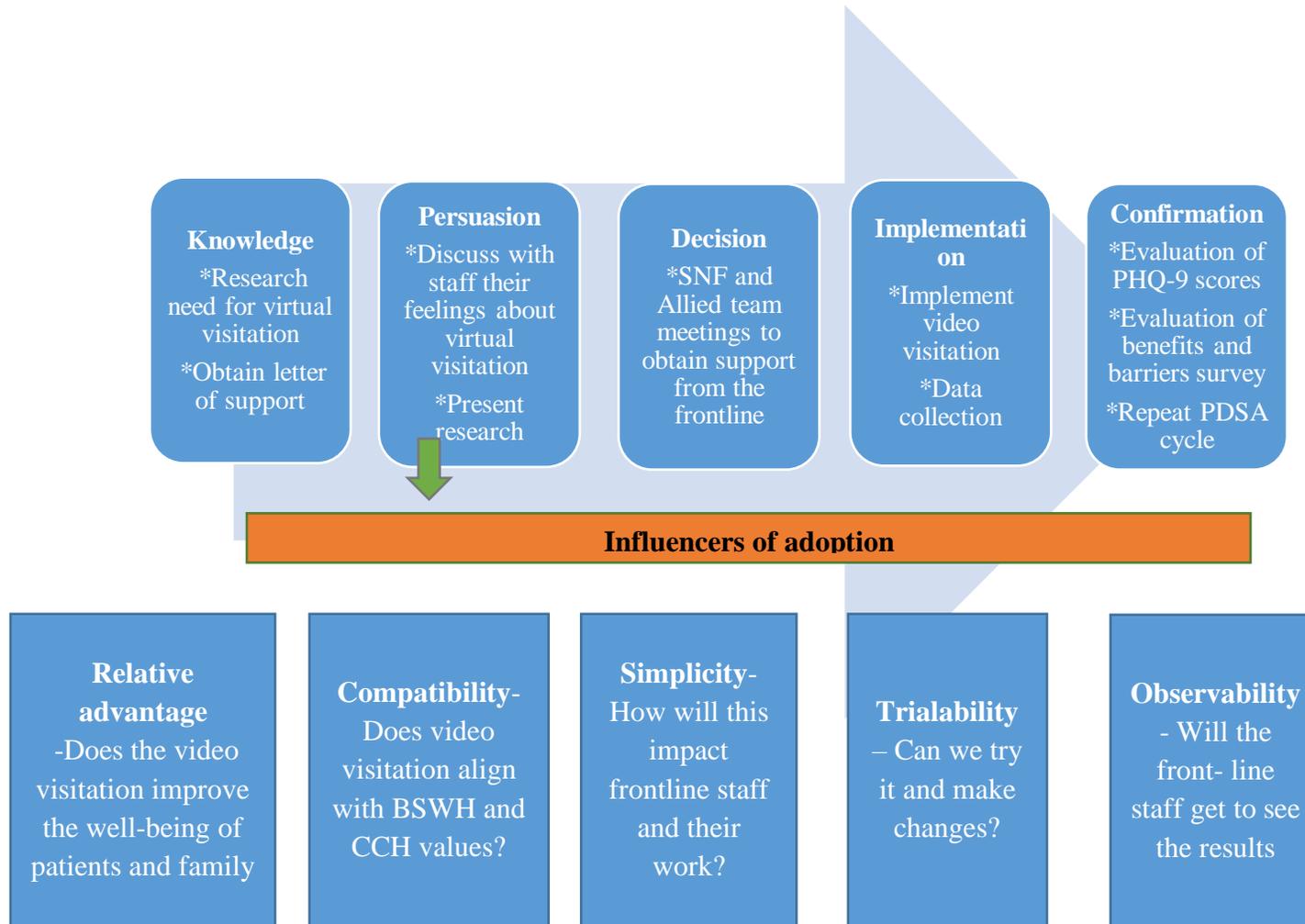
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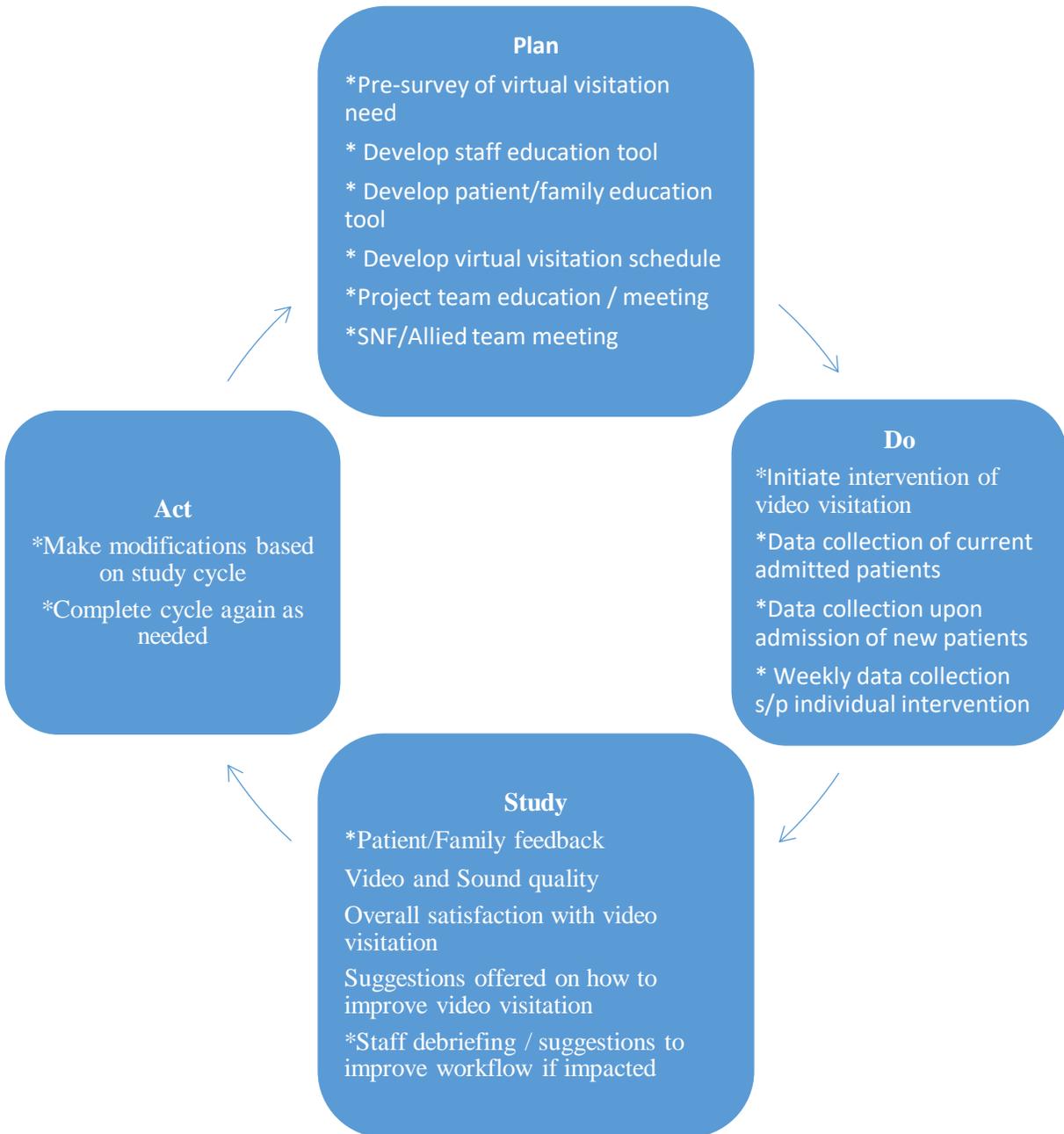
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APPENDIX A: Roger's Diffusion of Innovation



APPENDIX B: PDSA Cycle



APPENDIX C: Risk Assessment

Risk	Impact	Countermeasure	Resources	Barriers
1. Competing priorities	Staff unwillingness to assist with project	Educate staff on benefits of video visitation	Nurse educator; Staffing	Isolated staff; Tired staff from working during pandemic
2. Impact to nursing and allied services workflow	Negative attitude	Shadow and discuss with project team for ideas to reduce workflow impact; Meet with Allied services for agreement	Open Communication; Frequent meetings during project implementation	Allied services with structured time-based schedule
3. Lack of technology for family	Inability to participate in video visitation	Set-up family iPad for outside use	Involve informatics team earlier	Family unwillingness; Lack of monitoring of asset
4. Lack of understanding of PHQ-9 data collection	Staff not fully understanding the question or rating could result in false scores	Educate RN project members of tool and ratings	Medical Librarian, MDS Coordinator, Nurse Educator	MDS required (regulatory requirement)
5. COVID	Increased patients on isolation, larger sample size	Educate of benefits of video visitation; Education on cleaning of technology equipment	Infection prevention team; Nurse Educator	Staff lack of time

APPENDIX D: TAMU-CC Institutional Review Board Approval

1/18/2021

Mail - Robison, April - Outlook

Activities meeting the DHHS definition of research or the FDA definition of clinical investigation and involves human subjects are subject to IRB review and approval.

On 11-30-2020, the Office of Research Compliance reviewed the project below and determined that the proposed activity does not meet the FDA definition of a clinical investigation or DHHS definition of research:

Type of Review:	Not Human Subjects Determination
IRB ID:	TAMU-CC-IRB-2020-11-117
Project Lead:	Elizabeth Loika
Title:	Improving Depression Severity Scores with Patient/Family Video Visitation in a Skilled Nursing Facility
Rationale:	The project will not develop or contribute generalizable knowledge

Therefore, this project does not require IRB review. You may proceed with this project.

Limits to this determination:

1. This determination applies only to the activities described in the documents reviewed. Any planned changes require submission to the IRB to ensure that the research continues to meet criteria for a non-human subject research determination.
2. This project may NOT be referenced as "IRB approved".

The following statement can be included in the manuscript: "This Project was reviewed and determined to not meet the criteria for human subjects research by the Texas A&M University-Corpus Christi Institutional Review Board."

Please do not hesitate to contact the Office of Research Compliance with any questions.

Respectfully,

Rebecca Ballard

Office of Research Compliance

APPENDIX E: BSWH Institutional Review Board Approval

QUALITY IMPROVEMENT VS. RESEARCH ACTIVITY DETERMINATION FORM		
Date: 1/14/2021		
Project Leader: April Robison MSN, RN, HACP, NEA-BC		
Department/Division: BSWH Continuing Care Hospital Nursing – Skilled Nursing Facility		
Project Title: Improving Depression Severity Scores with Patient/Family Video Visitation in a Skilled Nursing Facility		
Instructions: Answer YES or NO to each of the following statements about QI projects.	YES	NO
The aim(s) of the project is to improve the process or delivery of care with established /accepted quality standards, or to implement change according to mandates of the hospital's Clinical Quality Improvement programs. There is no intention of using the data for research purposes.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
The specific aim is to improve performance on a specific service or program in the hospital and is part of usual care. All participants will receive standard of care.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
The project is NOT designed to answer a research question or test a hypothesis and is NOT intended to develop or contribute to generalizable knowledge.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
The project does NOT follow a research design (e.g., hypothesis testing or group comparison (randomization, blinding, control groups, prospective comparison groups, cross-sectional, case-control)). The project does NOT follow a protocol that over-rides clinical decision-making.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
The project involves implementation of established and tested quality standards and/or systematic monitoring, assessment or evaluation of the organization to ensure that existing quality standards are being met. The project does NOT develop paradigms or untested methods or new untested standards.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
The project involves implementation of care practices and interventions that are consensus-based or evidence-based. The project does NOT seek to test an intervention that is beyond current science and experience (i.e. off label uses of FDA approved drugs/devices).	<input checked="" type="checkbox"/>	<input type="checkbox"/>
The project is conducted by staff where the project will take place, and involves staff who are working at, or patients who are seen at the institution.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
The project has NO funding from federal agencies or research-focused organizations, and is not receiving funding for implementation research (see External Funding on pg 1).	<input checked="" type="checkbox"/>	<input type="checkbox"/>
The clinical practice unit (hospital, clinic, division, or care group) agrees that this is a QI project that will be implemented to improve the process or delivery of care (i.e., not a personal research project that is dependent upon the voluntary participation of your colleagues, students and/or patients).	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If there is an intent to, or possibility of publishing your work, you and your Department/QI Oversight group are comfortable with the following statement in your methods section: <i>"This project was undertaken as a quality improvement initiative at X hospital or clinic [fill in appropriate entity name], and as such was not formally supervised by the Institutional Review Board, per their policies on quality improvement initiatives."</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ANSWER KEY: If the answer to ALL of these questions is YES, the activity may be considered a Clinical Quality Improvement/Masurement activity that does not meet the definition of research. IRB review may not be required. Email a completed copy of this form along with an abstract or summary of the proposed activity to the IRB Office (IRBOFFICE@BSWHealth.org) and keep a dated copy of this checklist in your files. If the answer to ANY of these questions is NO, the project must be submitted to the IRB for review.		

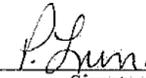
APPENDIX E: Continued

Please submit a complete copy of your proposed project with this completed form. Upon completion of review, you will receive a signed copy of the document and this will be your authorization to begin the project.

Project Title: Improving Depression Severity Scores with Patient/Family Video Visitation in a Skilled Nursing Facility

Form completed by: April Robison MSN, RN, HACF, NEA-BC
Type or Print Name: _____ Signature: 
Date: _____

In addition to completion of this checklist, you must ALSO obtain approval from the appropriate individuals in leadership, for your area, prior to beginning your project. This would be another individual in a leadership role who is knowledgeable in research and quality improvement/assurance activities, such as Medical Education (medical students, residents, fellows), Nursing Education (nurses), Chief of Service (members of medical staff) or Hospital/Clinical Leadership (non-physician staff members). If your project falls within one of these areas, please obtain review from the listed individual or his/her designee. If your project falls outside of these areas, you may obtain review from another knowledgeable senior leader within your area or you may contact the Office of Research Regulatory Affairs at Baylor Scott & White Research Institute for further guidance.

Form reviewed by: Peggy Luna
Type or Print Name: _____ Signature:  DNP, RN, NEA-BC
Date: _____

Acknowledgement by Office of Research Regulatory Affairs:

Form reviewed by: _____
Type or Print Name: _____ Signature: _____
Date: _____

APPENDIX F: BSWH HIPAA Confidentiality Agreement



Information for Students regarding Patient Privacy Rights (HIPAA)

The purpose of this communication is to emphasize to all students the commitment of Baylor Scott & White Health (BSWH) to protect the privacy rights of all our patients and the necessity of securing patient information in any form (electronic, paper, verbal, photography or filming). The consequences for a student failing to follow BSWH's policies and procedures protecting patient information or any misuse of patient information are severe.

As a student of BSWH, we may *only* access the patient information necessary for your role as a student. Students may *never* access any patient information for personal reasons (your own, family, friends, etc). ***If you don't need it to meet the objective of your student role, you are forbidden to access patient information.*** If you come across a family member or friend's information, do not access the information. If you need the information for your role as a student, bring it to the attention of your faculty or BSWH nursing staff. You cannot discuss it with your family, friends or staff. If a family member gives you permission to access their information or you need to review or obtain a copy of your own information, you are required to follow BSWH protocol and access that information through Release of Information. (ROI).

BSWH can and does monitor access to patient information. The identity of those accessing patient information is audited to ensure compliance with policies and procedures. If the audit or investigation reveals misuse of patient information, **disciplinary action, will be enforced. Violations of privacy rights will also be reported to the patient and the Office of Civil Rights (OCR). The OCR can find individuals civilly and criminally liable, including jail time, for violations of patients' privacy rights.**

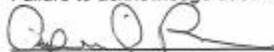
Please carefully evaluate your use of confidential patient information. It is our sincere desire that no one lose his or her student role due to a violation of BSWH policies and procedures concerning the protection of the privacy and confidentiality of patient information.

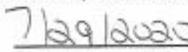
If you have questions or concerns regarding access of patient information, or you are not sure what you are allowed to do within your student role, ask your clinical instructor and/or unit supervisor, manager. You may also contact the Corporate Compliance Department at 254-215-9022 the Privacy Hotline 254-724-7600 or e-mail inquiries to HIPAA on Outlook. Additional information and FAQ's are available on the HIPAA website on Scott & White Intranet.

I acknowledge I have read and understand BSWH's policies and procedures for protecting the privacy and confidentiality of patient information.

By signing this Acknowledgement, I acknowledge, understand and agree that my failure to abide by the rules, guidelines, policies or procedures that BSWH currently has in place or that may hereafter be developed, may result in disciplinary action up to and including termination of my student role at BSWH. I also understand that I may also be held civilly or criminally liable for my actions.

Failure to acknowledge does not negate my responsibility to follow BSWH policies and procedures.


Signature


Date

- Yes, I acknowledge I have read and understand Baylor Scott & White's policies and procedures for protecting the privacy and confidentiality of patient information.
- I have additional questions and will contact the Scott & White Privacy Office at 254-724-7600. (This lesson will not be completed at this time.)

APPENDIX G: Title of Letter of Support



Continuing Care Hospital
546 North Kegley
Temple, Texas 76502
254.213.0900
www.BaylorHealth.com

9/30/2020

Dr. Sara Baldwin
Associate Dean for Academic Programs
College of Nursing and Health Sciences
Texas A&M University – Corpus Christi
6300 Ocean Drive
Corpus Christi, TX 78412

Dear Dr. Baldwin,

The purpose of this letter is to provide April Lynn Robison, a Doctor of Nursing Practice student at Texas A&M University College of Nursing and Health Sciences, support in conducting a quality improvement project at Baylor Scott and White Health Continuing Care Hospital. The project, "Improving Depression Severity Scores with Patient/Family Video Visitation at Baylor Scott & White Continuing Care Hospital Skilled Nursing Facility". This project will use technology to implement patient/family video visitation. Family members are often unable to visit patients due to barriers or restrictions. The use of video visitation can reduce family member anxiety and improve depression severity scores of patients.

The purpose of this QI initiative is to improve depression severity scores using technology to implement virtual patient/family visitation for patients admitted to a SNF in Temple, Texas. The Continuing Care Hospital Skilled Nursing Facility was selected for this project based on the patient population, existing barriers to visitation, and current visitor restrictions based on COVID. April Lynn Robison is employed at this institution and has an interest in improving care at this facility.

I, Peggy Luma DNP, RN, NEA-BC, Vice President of Patient Care Services-Critical Care Services at Baylor Scott and White Health Temple Region including the Continuing Care Hospital, do hereby fully support April Lynn Robison in the conduct of this quality improvement project, "Improving Depression Severity Scores with Patient/Family Video Visitation at Baylor Scott & White Continuing Care Hospital Skilled Nursing Facility" at the Baylor Scott and White Health Continuing Care Hospital.

I also approve April Lynn Robison to access protected health information (PHI) for purposes of conducting this quality improvement project. She has signed a HIPAA release form.

Sincerely,

A handwritten signature in blue ink that reads "P. Luma DNP, RN, NEA-BC".

Peggy Luma DNP, RN, NEA-BC Vice President Patient Care Services-Critical Care Services

APPENDIX H: Project Timeline

	Phase 1 Phase 1 Proposal (Aug 2020- Nov 2020)	Phase 2 Intervention Prep Work (Dec 2020-Jan 2021)	Phase 3 Intervention Implementation (Feb 2021-Apr 2021)	Phase 4 Dissemination (May 2021- June 2021)
Activities	List of activities	List of activities	List of activities	List of activities
	#1 Research need for virtual visitation	#1 Pre-survey of virtual visitation need	#1 Initiate intervention	#1 Compilation of data
	#2 Obtain letter of support	#2 Develop staff education tool	#2 Data collection of current admitted patients	#2 Final report
	#3 Final proposal oral presentation and defense	#3 Develop patient/family education tool	#3 Data collection upon admission of new patients	#3 Final TAMU-CC presentation
	#4 Submit proposal for IRB approval	#4 Develop virtual visitation schedule	#4 Weekly data collection s/p individual intervention	#4 Presentation at BSWH Temple Region Nursing Research and EBP Council
		#5 Project team education / meeting		
		#6 SNF team meeting		
		#7 Allied teams meeting		

APPENDIX I: PHQ-9 Resident Mood Interview

D0200. Resident Mood Interview (PHQ-9[©])		
Say to resident: "Over the last 2 weeks, have you been bothered by any of the following problems?"		
If symptom is present, enter 1 (yes) in column 1, Symptom Presence.		
If yes in column 1, then ask the resident: "About how often have you been bothered by this?"		
Read and show the resident a card with the symptom frequency choices. Indicate response in column 2, Symptom Frequency.		
1. Symptom Presence	2. Symptom Frequency	
0. No (enter 0 in column 2)	0. Never or 1 day	
1. Yes (enter 0-3 in column 2)	1. 2-6 days (several days)	
9. No response (leave column 2 blank)	2. 7-11 days (half or more of the days)	
	3. 12-14 days (nearly every day)	
		↓ Enter Scores in Boxes ↓
A. Little interest or pleasure in doing things	<input type="checkbox"/>	<input type="checkbox"/>
B. Feeling down, depressed, or hopeless	<input type="checkbox"/>	<input type="checkbox"/>
C. Trouble falling or staying asleep, or sleeping too much	<input type="checkbox"/>	<input type="checkbox"/>
D. Feeling tired or having little energy	<input type="checkbox"/>	<input type="checkbox"/>
E. Poor appetite or overeating	<input type="checkbox"/>	<input type="checkbox"/>
F. Feeling bad about yourself - or that you are a failure or have let yourself or your family down	<input type="checkbox"/>	<input type="checkbox"/>
G. Trouble concentrating on things, such as reading the newspaper or watching television	<input type="checkbox"/>	<input type="checkbox"/>
H. Moving or speaking so slowly that other people could have noticed. Or the opposite - being so fidgety or restless that you have been moving around a lot more than usual	<input type="checkbox"/>	<input type="checkbox"/>
I. Thoughts that you would be better off dead, or of hurting yourself in some way	<input type="checkbox"/>	<input type="checkbox"/>
D0300. Total Severity Score		
Enter Score <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/> <input style="width: 20px; height: 20px; border: 1px solid black;" type="text"/>	Add scores for all frequency responses in Column 2, Symptom Frequency. Total score must be between 00 and 27. Enter 99 if unable to complete interview (i.e., Symptom Frequency is blank for 3 or more items).	

APPENDIX J: Patient / Family Barriers and Benefits Questionnaire

Patient/Family Name:	Date:
Question	Score
1. Based on your level of satisfaction with your experience, what rating would you give to your video visitation overall?	1) Poor 2) Fair 3) Good 4) Very Good 5) Excellent
2. How would you rate the ease of using the technology?	1) Poor 2) Fair 3) Good 4) Very Good 5) Excellent
3. How would you rate the quality of audio?	1) Poor 2) Fair 3) Good 4) Very Good 5) Excellent
4. How would you rate the quality of video?	1) Poor 2) Fair 3) Good 4) Very Good 5) Excellent
5. Would you recommend video visitation to your family/friends?	Yes No
Any additional feedback you would like to offer?	

APPENDIX K: PHQ-9 Pre-and Post-Test

Staff Name:

What does the PHQ-9 stand for?

Why is the PHQ-9 collected?

What is the look back time period?

What does the PHQ-9 score indicate?

What should you focus on when completing the PHQ-9?

APPENDIX L: PHQ-9 Course Evaluation

Date of the Course: _____

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
The instructional materials increased my knowledge of the PHQ-9	1	2	3	4	5
The course was organized in a manner that helped me build on my current knowledge	1	2	3	4	5
The course provided time for discussion and practice of the PHQ-9	1	2	3	4	5
The course content was easy to understand	1	2	3	4	5
The instructor communicated clearly	1	2	3	4	5

Additional comments about the PHQ-9 course:

Additional comments about the instructor.

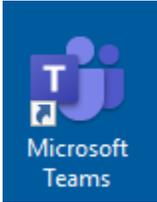
APPENDIX M: Improvement Interventions

Phase	Original Plan	Issue Encountered	Revised Plan	Completion Date
1. Pre-Intervention	Staff education on PHQ-9 / Staff introduction of project	Staff unable to complete interview sitting down as recommended based on education due to electronic charting	Copies of PHQ-9 made and laminated for staff to use while sitting and interviewing patients	2/12/2021
2. Intervention	Microsoft Teams Patient / Family Video Visitation	Difficult for family members to set-up and access Microsoft Teams	Step-by-Step instructions made for family members with images for easy guidance	2/23/2021
		COVID related staffing shortage caused workflow disruption	Project Manager assisted with video visitation sessions	2/25/2021
		Limited return of nurse data collection forms at admission	Project Manager participated in reminders huddles	3/22-3/26/21
3. Post Intervention	Compilation of Data and Final Report	None	None	6/1/2021

APPENDIX N: Family Video Visitation Instructions

Needs Teams App

1. Go to App Store (Apple) / Play Store (Android)
2. Download Microsoft Teams



3. Once downloaded, click on Microsoft Teams application
4. If already a member sign in
5. If not a member sign up for free , choose account type “personal” and create an account

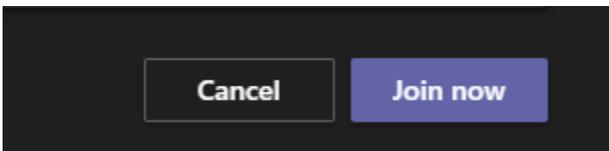
Has Teams App

1. Open email from “PatientConsult***”; will contain 3 numbers in place of ***
2. Click “Click here to join the meeting”

Join on your computer or mobile app

[Click here to join the meeting](#)

3. Click “Join now”



4. Ensure your Camera and Microphone are on (appears as the picture below)



If they appear as below, click on the image to turn them on



APPENDIX O: Demographic Details

Characteristics	Mean (SD) or N (%)
Number in group	7
Age (yrs.), mean (SD)	66.42 (19.6)
Women (%)	28.5
Race	
White (%)	71.4
African American/Black (%)	0.0
Hispanic (%)	28.6
Islander (%)	0.0
Had Smartphone (%)	0.0
Length of stay (days), mean (SD)	39.7 (58.7)
Number of Visits mean (range)	5 (1-17)

APPENDIX P: Patient / Family Video Visitation Satisfaction

Question	Result
Number of Video Visits, mean (SD)	5.3 (4.9)
Patient Overall Satisfaction: Poor -1, Excellent -5	5 (n=5)
Patient: Any additional feedback you would like to offer?	<ul style="list-style-type: none"> • Keep doing them. I love the one with my wife • It was so nice to see my family, I miss them
Family Overall Satisfaction: Poor -1, Excellent -5	5 (n=8)
Family: Any additional feedback you would like to offer?	<ul style="list-style-type: none"> • Wonderful. It lifted our spirits to see him, and it looked like he enjoyed it as well. It's so difficult not being able to visit, and this helps • Very important to follow along while talking to see face and understand verbal communication, especially people with dementia • Always communicating and always easy setting-up. We believe video visitation is the reason he is going home, we were able to keep connected and keep his mind working on who we were • Video visitation was our lifeline seeing we couldn't see my husband. I was able to let him know I loved him and was working to help him. It also helped his kids understand what was going on and I could see his eyes light-up when his kids were talking to him

APPENDIX Q: Overall Satisfaction with Video Visitation



APPENDIX R: The Effect of PHQ-9 Education of Nursing Understanding

Measure	Result
	n=12
Pre-Test %, (SD)	6.7 (12.47)
Post-Test %, (SD)	98.3 (5.5)
% Change	91.6
t-value	-17.6
p-value	0.01
PHQ-9 Course Evaluation	4.9
Additional comments about the PHQ-9 course	<p>-I know understand more about the PHQ-9 questions and can interpret their answers better</p> <p>-It will definitely be helpful for the patients</p> <p>-I found this to be very informative. Thank you</p> <p>-Increased knowledge to better take care of patients – Its all about the patient</p> <p>-Very informative</p> <p>-The course was informative and helpful</p>

APPENDIX S: PHQ-9 Education

