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Improvement of Medication Compliance by Adding a Weekly Medication Planner

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Improvement of Medication Compliance by Adding a Weekly Medication Planner

Abstract

This quality improvement project aimed to use a weekly medication planner to enhance medication adherence in a home health setting to help improve patient healthcare outcomes. A weekly medication planner helps patients manage their medications. Systematic reviews and meta-analyses show medication planners increase adherence. Morisky 4-item survey assessed patient opinions pre and post intervention.

Problem: Medication adherence is an important part of home health patient care that affects health outcomes and safety. The problem is patients received an abundance of discharge medications and do not have enough time with a Registered Nurse discharge planner to go over their medication side effects and to help plan a weekly planner to put into place. Using the Morisky 4-item questionnaire, the baseline data total score of 21 was collected for 20 patients with chronic conditions of Congestive Heart Failure (CHF), Diabetes Mellitus(DM), and/or Hypertension (HTN), without a medication planner. The team aim to decrease the rate of drug non-adherence to a total score of 7 total points.

Context: The setting for this project is a large, hospital-based home health agency, with an average daily of 361 patients, composed of Alameda County patients and Contra Costa County patients with chronic and acute conditions, with diagnoses of CHF, DM, and/or HTN with problems of polypharmacy.

Interventions: Qualitative pre- and post-surveys were conducted to gather patient perceptions on the medication planner and its impact on medication adherence. The 4-item Morisky adherence survey questionnaire was used to evaluate patient medication adherence after using the medication planner.

Measures: The outcome measure was to decrease the rate of drug non-adherence total score from 21 total points at baseline to an updated score of 7 total points by July 18, 2023, using the 4-item Morisky questionnaire survey in home health CHF, HTN, and/or DM patients upon third component of addition use of a weekly medications planner.

Results: For each patient totaling of greater than 2 total points after answering the Morisky 4-item questionnaire signified medication adherence rate was low. Of the 20 patients, a maximum of 40 points signified very low adherence. The maximum low adherence score was 16 total points for 8 patients. After three weeks, 8 patients were further chosen as a subgroup, using a simplified revised planner. These patients had a pre-survey score of 11 points, which further decreased to 7, a 4-point improvement. Patient outcomes and satisfaction were both evident, as patients did not readmit and had better health outcomes, using the revised planner.

Conclusions: A weekly medication planner is necessary to improve compliance in a home health setting. Medication adherence affects health and safety. Clinicians who provide great cooperation and communication with their patient's weekly medication planner also affect patient satisfaction and motivation.

Keywords: medication compliance, HHCAHPS, medication planner, HBM

Personal Leadership Statement

As a clinical nurse supervisor in the home health department, my leadership vision is to provide high-quality, high-safety, patient-centered care that promotes the health and wellbeing of our patients. I believe in fostering a culture of collaboration, communication, and continuous performance improvement projects among the healthcare team to help meet the patients' needs.

I chose to add a weekly medication planner to increase medication compliance as my project topic because medication noncompliance is prevalent among home health patients. This also enhances a patient-centered approach in improving medication adherence and helps promote the patient's empowerment to adhere with their medications. A medication planner is a tool that allows patients to organize time and schedule their medication doses in a simple and easy-to-follow way. It can help patients stay on track with their medication schedules, reducing the likelihood of missing doses or taking the wrong medication (Konstantinou et al., 2020) As a nurse, I relate to this topic as I value patient safety. Medication adherence is crucial to patient safety, as it contributes to significant worsening of disease and is essential for managing chronic, complex, and/or rare conditions effectively.

Our microsystem will benefit from improved patient experience, which leads to patient satisfaction, efficiency, and improved engagement. Involved patients have better health outcomes and better communication among healthcare team members. Adding a weekly medication planner to increase medication compliance aligns with my values and significantly, positively impacts our patients and microsystem.

Qualitative Discussion

During my project, I conducted a qualitative survey to gather patient and staff perspectives on medication compliance with the additional use of a weekly medication planner.

This helped me view patient and staff perspectives in decision-making and edit the weekly medication planner accordingly.

Problem Description

The setting takes place in a hospital-based home health agency in Oakland and Richmond, with a census of 361 adult patients from Alameda County and Contra Costa County. The setting also has pediatric and newborn patients, with one pediatric, one newborn, one maternal nurse available to serve these types of patients and a census of eight pediatric patients. One of the most pivotal metrics in the unit is the Health Consumer Assessment of Healthcare Providers and Systems (HCAHPS). The HCAHPS scores show the quality of care an agency provides and can provide an insight into the patient experience and help identify areas that are in need for improvement. The survey consists of 34 questions, which are recorded, measured, and compared to state and national averages (Centers for Medicare & Medicaid Services [CMS], 2021).

All Medicare-certified home health agencies are eligible for a 1-star to 5-star rating. Three-star or 3.5-star agencies are considered average. These two agencies measure quality and safety of our home health agency. Our department is Joint Commission certified. Joint commission accreditation is an objective evaluation that helps home health measure improvement performance to provide safe and quality for our patients (TJC, 2023). The JC survey is done onsite.

One of the JC questions related to my project was to obtain and update the medication list to reflect what the patient is taking in language that the caregiver and/or patient can understand. On this item, the agency scored 80% in February 2023, with a goal of 90%. Using the weekly

planner not only helps in medication compliance, but also reflects what the patient is taking in a language they understand. It also helps to reduce Adverse events reports related to medication discrepancies. Using the Morisky 4-item questionnaire (see Appendix A), the baseline data total score of 21 was collected for 20 patients with chronic conditions of CHF, DM, and/or HTN, without the use of a medication planner. The patient received a score of 0 or 1 point per question, with the four questions totaled. A score of one or more was indicative of a low adherence score for each patient. A maximum of 40 points signified very low adherence for twenty patients. For this project, a lower score is better

Global Aim

The global aim of this project was to decrease the number of adverse events related to medication noncompliance events.

Specific Project Aim

The specific project aim was to decrease the medication non-adherence score from 21, to an updated total point of 7 by July 18, 2023, using the 4-item Morisky questionnaire survey in home health CHF, HTN, and/or diabetes patients using a weekly medication planner.

Available Knowledge

PICOT Question

A PICOT question was created to aid in the search for appropriate literature: Among patients in a home health setting (P), what is the impact of implementing a medication planner (I) in improving medication compliance or adherence (O). compared to regular medication schedule (C), within 6 months of intervention (T).

Search Strategy

In the search strategy, I aimed to identify articles related to improving medication compliance by adding a weekly medication planner. The databases used for the search were CINAHL and Cochrane, years 2011 to 2022, with Boolean/Phrase mode. To begin the search process, key terms used included “medication complian* OR medication adheren* AND calendar OR planner. A search was conducted in CINAHL using these terms, which yielded 42 articles. I selected systematic reviews of controlled and randomized control trials, which were filtered through the advanced search.

After reviewing the search results, the most relevant articles were selected based on criteria, such as the research question, study design, sample size, outcome, and feasibility. Articles were filtered for peer-review and selected from academic journals. Based on the relevance and quality of the articles, five articles were chosen, which are included in the evaluation table. The Johns Hopkins Nursing Evidence-Based Practice Research Evidence Appraisal Tool was used to rate the evidence (see Appendix B).

Critique of Evidence

Verloo et al. (2017) completed a systematic review of controlled and randomized control trials that looked at 14 studies with 2,028 patients. They found that nurse-led and nurse-collaborative interventions helped to improve medication adherence among discharged older adults. In eight of the 14 studies, there was statistical significance between the intervention and control groups. According to the Johns Hopkins tool, this article was rated as Level IIB.

Zedler et al. (2011) completed a systemic review. Zedler et al. used a randomly selected sample of 1,045 participants from the community. The study found that using an integrated approach improved patient medication adherence. The use of calendar planners as reminders was

effective in ensuring medication adherence and planning. According to the Johns Hopkins tool, this article was rated as Level IB

Cross et al. (2020) conducted a systematic review of 50 studies that provided information on the relevance of medication planners in improving medication adherence among older adults in a home setting. According to the Johns Hopkins tool, this article was rated as Level IIIA.

Jeon et al. (2022) conducted a meta-analysis, which showed the importance of medication planners in elderly patients with chronic disease and how interventions, such as a medication planner, helped with patient adherence rate. According to the Johns Hopkins tool, this article was rated as Level IB.

Anderson et al. (2020) conducted a systematic review of interventions and approaches used in medication adherence. The study found that dose simplification and patient education effectively ensured medication adherence. The use of reminders in planning for medication was found to be effective for patient medication adherence. According to the Johns Hopkins tool, this article was rated as Level IIA.

Summarizing the articles reviewed, there is evidence that using a weekly medication planner can be successfully implemented to reduce medication noncompliance. Each article provided information about how nursing interventions improve and assist older adults to adhere to their medication in a home health setting.

Rationale

Conceptual Framework

The guiding theory I used for this research is the Health Belief Model (HBM). The HBM is a widely used theoretical framework for understanding and predicting health-related behaviors, particularly in relation to preventive health behaviors. The HBM proposes that an individual's

behavior is influenced by their perceived susceptibility to a health problem, their perceived severity of the problem, their perceived benefits of taking action to avoid the problem, and their perceived barriers to acting. The model also considers cues to action, such as reminders or prompts, that can motivate individuals to act.

Significance of Framework to the Project

The HBM guided my project by providing a framework for understanding medication compliance behavior and identifying factors contributing to noncompliance. By examining individuals' beliefs and perceptions related to medication compliance, my project identified specific barriers to adherence and developed targeted interventions to address these barriers. Using a weekly medication planner can serve as a cue to action, reminding individuals to take their medications and helping reinforce the perceived benefits of adherence. By applying the HBM framework, this project designed interventions that addressed the specific beliefs and barriers of the target population, which led to improved medication adherence and better health outcomes. Improving medication compliance is critical to managing chronic diseases and reducing the risk of medication errors, particularly in the home health setting.

A weekly medication planner is a tool that can help patients manage their medications and provides a visual aid for patients to track their medications, ensure they take them at the right time, and reduce the risk of missed doses or overdoses. A weekly medication planner can be particularly useful in the home health setting, where patients often manage their medications independently. Incorporating a medication planner is like a written medi-set and/or medication administration record home health providers can use to improve patient education and support, ensure medication safety, and reduce the risk of hospital readmissions. Overall, using a weekly

medication planner in the home health setting can improve medication compliance, reduce the risk of medication-related adverse events, and ultimately lead to better patient health outcomes.

Context

Microsystem Assessment – The 5 Ps

A microsystem assessment was completed with the outcome as follows:

Purpose

The purpose of the home health department is to provide skilled, intermittent doctor orders to homebound patients to help reach their care plan goals created by patient and their home health clinician.

Patients

The 361-patient census in this department is composed of Alameda County patients and Contra Costa County patients. We also have pediatric newborn patients, with one pediatric, one newborn, one maternal nurse available to serve these types of patients.

Practice

Home health service and site home health registered nurse (RN) directors manage the supervisors and the office/administrative staff, and quality directors manage quality coordinators.

Process

Each department has their own process workflow to follow using a home health policy and procedure manual. Documentation guidelines, such as OASIS guidelines, are provided through home care guide. Home health follows the CMS guidelines.

Patterns

We have patients with chronic and acute conditions with diagnoses of CHF, DM, and HTN with polypharmacy.

Culture Assessment

To enhance medication adherence, it is crucial to monitor specific parameters, such as the extent to which patients follow their prescribed drug regimen and any missed doses. Home health RN clinicians report any adverse events related to medications. The culture on the unit was a crucial aspect for the success of the project. The Home health clinicians are consistent and open to share information, which is needed to ensure information and communication is appropriate and timely. We have a culture of reporting any unsafe conditions to commit to a culture of safety.

These variables are deemed essential in clinical settings for improving overall patient outcomes (CMS, 2021). There is no Internal data collection to measure medication compliance, The medication planner provides measures in obtaining an updated medication list to reflect what the patient is taking in language that the caregiver and the patient can understand. Second, follow-up visits were used to check if weekly medication planners were done correctly by the patients and informed the clinician willingness to participate in the project.

SWOT Analysis

Strengths

The My Weekly Medication Planner is a practical and effective tool for managing medication schedules, which could improve patient medication compliance. The tool can be personalized to meet patient needs by helping patients follow their medication regimens. The tool could provide healthcare providers with valuable information about patients' medication compliance and could help facilitate better communication between patients and providers.

Weaknesses

The tool requires weekly patient and/or caregiver input, which could be time-consuming and may deter some patients from using it regularly. The tool may not work for some patients; some may require additional support or interventions to improve their medication compliance. The tool may not be user-friendly for all patients, and some patients may require additional training or support to use it effectively.

Opportunities

Other medication management tools or technologies could compete with the My Weekly Medication Planner and potentially reduce its adoption and effectiveness. Patients may hesitate to use the tool if they perceive it as too invasive or have concerns about data privacy and security. The tool may not be compatible with certain medication regimens or healthcare systems, limiting its effectiveness in some contexts. Opportunities include identification of discrepancies related to medication on admission and close follow-ups after discharge. Increased market share is also an opportunity using a weekly medication planner.

Threats

The threats include reduced reimbursement from payers for low medication scores and adverse events and the potential increases in Covid cases, impeding clinician ability to provide follow-up revisits. Other threats include regulatory penalties, as well as overworking of personnel with more overtime (see Appendix C. SWOT Analysis)

Return on Investment Plan

The return of investment or cost avoidance of the project is estimated to be 357%, which means that for every dollar invested in the project, there is a potential return of \$2.64 in cost savings. One emergency room visit and/or hospitalization is \$20,000 per patient. For 1,000

patients, that may approximate a cost-savings of nearly \$20 million. Productivity and quality of life, relating to actual expenditures like medications and follow-visits may add \$5,000 per patient. For 1,000 patients, this would be equivalent of an additional \$5 million. This suggests that the project is likely to be highly beneficial from a financial perspective, as well as from a health outcome perspective (see Appendices D and E).

Communication Plan

Information about the project and status updates were communicated via monthly email to the site director and supervisors who value this project (see Appendix F for the Power-Interest Grid).

Patients

Patients have medium power since they are the end users of the medication planner but may not have the financial resources to develop or implement it. They have a high interest, as the tool will directly impact their medication adherence and overall health outcomes. They needed constant communication from the team for the medication planner success.

Healthcare Providers

Healthcare providers have high power, as they are the ones who prescribe the medication and are responsible for monitoring patient adherence. They have a high interest, as improving medication compliance can lead to better patient outcomes. We communicated with the clinicians weekly. Site and service directors have high power/high interest, as improving medication compliance can lead to better patient health outcomes. They were interested in the higher-level information, and we communicated with them monthly.

Intervention

The intervention for improving medication compliance involved using a weekly medication planner (see Appendix G for the original planner and Appendix H for the revised planner). The planner was designed to help patients keep track of their medication schedule, including the type of medication and special indications, such as whether to take with meals or on an empty stomach and time of day it needed to be taken (a.m., noon, p.m., or bedtime). The Morisky 4-item survey questionnaire (Morisky et al., 1986) was used to evaluate the effectiveness of the medication planner use and to improve compliance. Patient education was provided before shift on how to use the weekly medication planner. As a reminder, a weekly medication planner is a tool that allows patients to keep track of their medications, including the timing of each medication (Linkens et al., 2020). In consideration, this tool was used by the patient as a form of teach back—the clinician introduced how to use it, left it with the patient and made a quick return visit to check if it was filled out correctly. The medication planner was originally laminated, so it could be reused week over week. This was updated to print style for ease of writing. It did not include instructional information already included in the medication list and/or the currently used medication use tool, called *My Medication Matters*, which, for example, includes reason for taking a medication and side effects, which are taught in these formats. This is a third component of the medication reconciliation process and a planning tool used to improve compliance.

Study of the Intervention

The team created a strategy for a family of measures, including outcome, balancing, and process measures and collected data using a PDSA cycle method for quality improvement (see Appendix I).

PDSA Cycles

The weekly medication planner is a tool to help patients stay organized with their medication schedule. By using this planner, patients can easily track and manage their medication intake throughout the week, ensuring they take the right medication at the right time and follow any specific instructions.

Plan Do Study Act (PDSA)#1

The initial Plan Do Study Act (PDSA) cycle was the introduction and education with the home health performance improvement team (PIT) on use of the weekly medication planner. We initially started with a group of 20 patients diagnosed with a chronic condition requiring polypharmacy medication management, specifically patients with diagnoses of CHF, DM and or HTN. In April, a presentation of the weekly medication planner was presented to management, with approval. Also, the performance team was provided additional one-on-one training to reiterate the instructions previously given on how to use the weekly medication planner. The PIT investigated behaviors. Decreased motivation factor were barriers to patients being compliant to the weekly medication planner. In studying the initial intervention, we found most patients found the weekly planner cumbersome.

PDSA #2

The weekly medication planner was simplified by changing the format of the planner. In June, another presentation was made to each PIT member to educate them on the revised weekly medication planner. The first heading to the left is the name of the medication and the dose of the medication; the second heading is special indications, such as whether to take with meals or on an empty stomach; the third heading, right column, is the time of day it needs to be taken (a.m., noon, p.m., or bedtime); the top of each column represents the days of the week, starting from Sunday; the top column is the days of the week. The revised weekly medication planner is simplified by under each day, adding a box for patient to place a check mark for each time a medication is taken.

The PIT created education for the patient and their caregiver on how to use the tool. We offered the education in two sessions: (1) First-time education; (2) Follow-up guidance, as

needed; feedback from staff on how to use the medication planner, which was used to review and potentially update the medication planner, as appropriate, and to potentially add more clinicians for spread. The PIT tested the new revised weekly medication planner tool with less patients, decreasing their patient load to one to two patients instead of the five patients per clinician.

Enhanced recovery after surgery patients were good candidates for this type of medication adherence and compliance tool. We completed a test of change with only a few clinicians—two Registered Nurse (RN), two Physical Therapist (PT), one PT supervisor and one RN supervisor. Additionally, the PDSA collected patient feedback on the usability and helpfulness of the weekly medication planner. The PDSA findings could also provide further evidence for the effectiveness of the intervention in improving medication compliance.

Family of Measures

Outcome Measure

The outcome measure aimed to decrease the rate of drug non-adherence total score from originally 21 total points to an updated 7 total points by July 18, 2023, using the 4-item Morisky questionnaire survey in home health CHF, HTN, and/or diabetes patients by using a weekly medication planner.

Process Measure

The process measure aimed to see that by July 18, 2023, 100% of clinicians used a weekly medication planner added to medication reconciliation to help improve medication compliance.

Balancing Measure

The balancing measure aimed to see that by July 18, 2023, 80% of patients used a weekly medication planner correctly, as it would be possible to use the planner, but use it incorrectly.

Ethical Considerations

Improving medication compliance using My Weekly Medication Planner raises several ethical considerations. First, confidentiality and privacy are crucial when it comes to medication management. The planner must be designed to ensure that patients' medication information is kept confidential and only accessible to authorized healthcare professionals and the patient's caregivers. Patients should also have the right to control their personal medication information and decide who can access it. Second, there is the issue of patient autonomy. Using a My Weekly Medication Planner should not restrict this right but empower patients to make informed decisions about their medication regimen. Efforts should be made to ensure the planner is accessible to all patients. Last, using My Weekly Medication Planner should not be seen as a replacement for healthcare professionals. The planner should complement the help from home health clinicians. Healthcare professionals should remain the primary source of medical advice and support for patients.

This project meets the University of San Francisco's Jesuit value of *Cura Personalis*, in that all persons are treated equally, and this project is open to any persons of all ethnicities, religion, gender orientation, and socioeconomic status to help benefit each person as a whole and address each person of their needs (University of San Francisco, n.d.). The American Nurses Association (2015) standards of nursing have five codes in ethics, which are nonmaleficence, beneficence, autonomy, justice, and privacy/confidentiality. My project helps carry out these five codes of ethics. This project will help build autonomy by setting the patient's medication schedules through the medication planner. This project has been approved as a quality

improvement project by faculty using quality improvement review guidelines and does not require Internal Review Board approval (see Appendix J).

Results

The study's primary objective was to utilize the principles of the HBM to establish whether a weekly medication planner could promote better medication adherence, ultimately resulting in enhanced patient health outcomes and safety. Utilizing survey data gathered pre- and post-intervention using the Morisky 4-item adherence questionnaire allowed for determining the outcomes and findings. After intervention, the result of the 4-item Morisky post-intervention survey showed improvement in total score from initially 21, to the updated subgroup score of 11 down to 7 in the subgroup. The Morisky questionnaire assessed forgetfulness and other factors related to non-adherence in patients. The results were expected because the HBM plays a factor in improving medication compliance. Encouragement and providing positive feedback helped assist patients to stay motivated to follow their medication weekly planner (see Appendix K. Outcome Data Display).

Discussion

Key Findings

The key finding of the project suggested that utilizing a weekly medication planner could effectively boost medication adherence within a home health setting. The observations from this quality improvement project align with the expectations set forth by the HBM, which highlights adherence as a critical factor influencing health outcomes and safety. Moreover, the medication planner positively influenced the department's ability to meet HHQRP and HHCAHPS quality indicators, specifically those associated with oral medicine management and updating the prescription list. It also helps reduce adverse effects related to medication errors. These

observations suggest that incorporating a medication planner into routine practice could improve patient care outcomes in home health.

Lessons Learned

- **Patient Engagement:** This project emphasized empowering patients to participate in their medications. Patients who actively used the medication planner showed improved medication adherence.
- **Simplicity of Use:** The medication planner's effectiveness was crucial to its simplicity. With a straightforward and easily understandable method for managing medications, patients demonstrated an increased propensity to adhere to them accurately and consistently.
- **Staff Training:** An essential element in attaining effective implementation involves ensuring that staff members possess a comprehensive understanding of the advantages and usage procedures of the medication planner.
- **Communication:** The project experienced noteworthy accomplishments due to establishing transparent communication channels among patients, their caregivers, and healthcare providers.
- **Successful Change Contributors:**
 - **Leadership Support:** With management's endorsement, the weekly medication planner presentation gained momentum, driving the initiative forward. The project succeeded due to their support, resources, and endorsement.
 - **Teamwork:** The project's success was significantly influenced by the collaborative efforts of the home health PIT. By actively studying the planner,

incorporating it into their professional activities, and instructing patients on its utilization, they achieved a successful rollout of the intervention.

- **Evidence-based Approach:** The project drew upon the HBM, an established framework, and incorporated systematic reviews and meta-analyses that showcased the effectiveness of medication planners, providing a solid foundation of evidence for the quality improvement project.
- **Patient Selection:** The successful change was influenced by choosing patients with chronic illnesses who needed polypharmacy prescription medication, as they were identified as potential beneficiaries of the planner.

Conclusion

This quality improvement project aimed to boost medication compliance from a baseline and explored several theoretical arguments characterizing medication compliance challenges and barriers among patients, including the HBM, which explained how medication compliance is a relevant feature of patient behavior. Throughout the planner, a significant issue that emerged was the patient's motivation factor. Reeducation of the purpose of the medication helps patient motivation factor in to comply with the weekly medication planner.

The project employed a pre- and post-intervention survey on the medication planner's relevance in boosting patient medication adherence. Taking place over some time, the planner remains a significant part of the intervention to help lower patient risks from inevitable misuse of medications or adverse effects. While the medication planner is a significant approach to help solve the serious issue of noncompliance to the dose, patient socioeconomic, living status, and their opinions played a significant part in their adherence journey. Sustainability plans include

continuing the project which may include further revision of the planner with team input.

Usefulness of the Work, Sustainability, Potential for Spread, Implications for Practice

Practically speaking, this project underscores the significance of employing a weekly medication planner as an inexpensive and conveniently achievable solution to enhance medication adherence in home health care. It improves medication adherence and enhances patient satisfaction and health outcomes.

To sustain the project's longevity, allocating resources toward continuous patient education and staff training programs is necessary. Collecting and integrating patient feedback into the intervention's iterative improvement requires equally essential systems.

The project results served valuable information for making policies and decisions within departments and organizations. According to Cross et al. (2020), by including the medication planner in their standard procedures, healthcare organizations can elevate care quality, patient satisfaction, and adherence to quality measures.

In addition, this method can be implemented in other spheres of patient care where patient compliance is a critical factor in determining health results. This would help establish a healthcare system prioritizing patient satisfaction and quality of care.

Thinking about implications for others who face the same issues, patient motivation is a crucial component to the success of medication compliance and should be considered when mapping out a strategy for improvement.

The project's findings guided the relevance of a medication planner as a key tool for ensuring medication adherence among patients.

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Zedler, B. K., Kakad, P., Colilla, S., Murrelle, L., & Shah, N. R. (2011). Does packaging with a calendar feature improve adherence to self-administered medication for long-term use? A systematic review. *Clinical Therapeutics*, 33(1), 62–73.

<https://doi.org/10.1016/j.clinthera.2011.02.003>

Appendix A. Morisky Survey

Question	Patient Answer (Yes/No)	Score
		Y = 1
		N = 0
Do you ever forget to take your medications?		
People sometimes miss taking their medicines for reasons other than forgetting. Thinking over the past 2 weeks, were there any days when you did not take your medicine?		
When you feel better, do you sometimes stop taking your medicine?		
Sometimes if you feel worse when you take the medicine, do you stop taking it?		
Total Score:		

Scores:

>2

1 or 2

0

Low adherence

Medium adherence

High adherence

Morisky, D. E, Green, L. W., & Levine, D.W. (1986). Concurrent and predictive validity of a self-reported measure of medication adherence. *Medical Care*, 24(1), 67–74.

<https://doi.org/10.1097/00005650-198601000-00007>

Appendix B. Evaluation Table

PICOT Question: In adult patients (P) receiving home health services, does the use of a medication planner (I), compared to usual care (C), improve medication compliance (O) within 6 months (T)?

Study	Design	Sample	Outcome/Feasibility	Evidence Rating
<p>Verloo, H., Chiolero, A., Kiszio, B., Kampel, T., & Santschi, V. (2017). Nurse interventions to improve medication adherence among discharged older adults: A systematic review. <i>Age and Ageing</i>, 46(5), 747–754.</p> <p>http://dx.doi.org/10.1093/ageing/afx076</p>	<p>Systematic review of controlled clinical trials (CCTs) and randomized CCTs (RCTs)</p>	<p>14 studies, including 11 RCTs and 2 CCTs, with 2,028 patients (995 in intervention groups, 1,033 in usual-care groups).</p>	<p>Outcome - Nurse-led and nurse-collaborative interventions helped moderately improve medication adherence among discharged older adults. Out of the 14 studies, the intervention group showed higher adherence rates, compared to the usual-care group in 9 studies. In 8 of these studies, the difference between the two groups was statistically significant.</p> <p>Feasibility - Provides information about how nursing interventions, such as adding medication organizers, improved medication adherence among older adults in a home setting.</p>	<p>Level IIB</p>
<p>Zedler, B. K., Kakad, P., Colilla, S., Murrelle, L., & Shah, N. R. (2011). Does packaging with a calendar feature improve adherence to self-administered medication for long-term use? A systematic review. <i>Clinical Therapeutics</i>, 33(1), 62–73.</p> <p>https://doi.org/10.1016/j.clinthera.2011.02.003</p>	<p>Systemic review</p>	<p>Randomly selected sample of 1,045 participants selected from the community.</p>	<p>The study found that using an integrated approach improved medication adherence by patients. The use of calendars as reminders was effective in ensuring medication adherence and planning.</p>	<p>Level IB</p>
<p>Cross, A. J., Elliott, R. A., Petrie, K., Kuruvilla, L., & George, J. (2020). Interventions for improving medication-taking ability and</p>	<p>Systematic review</p>	<p>50 studies</p>	<p>Provides information on the relevance of medication planners in improving medication adherence among older adults in a home setting.</p>	<p>Level IIIA</p>

Study	Design	Sample	Outcome/Feasibility	Evidence Rating
<p>adherence in older adults prescribed multiple medications. <i>Cochrane Database of Systematic Reviews</i>, 5(5), Article CD012419. https://doi.org/10.1002/14651858.CD012419.pub2</p>				
<p>Jeon, H. O., Chae, M.-O., & Kim, A. (2022). Effects of medication adherence interventions for older adults with chronic illnesses: a systematic review and meta-analysis. <i>Osong Public Health and Research Perspectives</i>, 13(5), 328–340. https://doi.org/10.24171/j.phrp.2022.0168</p>	Meta-analysis	None	Study showed importance of medication planners in elderly patients with chronic diseases and how interventions as medication planners helped with patient adherence rate.	Level IB
<p>Anderson, L. J., Nuckols, T. K., Coles, C., Le, M. M., Schnipper, J. L., Shane, R., Jackevicius, C., Lee, J., Pevnick, J. M., & PHARM-DC Group. (2020). A systematic overview of systematic reviews evaluating medication adherence interventions. <i>American Journal of Health-System Pharmacy</i>, 77(2), 138–147. https://doi.org/10.1093/ajhp/zxz284</p>	Systematic review	A systematic review of interventions and approaches used in medication adherence through the search of the Cochrane database.	The study found that dose simplification and patient education effectively ensured medication adherence. The use of reminders in planning for medication was found to be effective for patient medication adherence.	Level IIA

Appendix C. SWOT Analysis

<p>Strengths</p> <p>The My Weekly Medication Planner is a practical and effective tool for managing medication schedules, which could improve patient medication compliance.</p> <p>The tool can be personalized to meet patient needs. By helping patients stick to their medication regimens, the tool could ultimately lead to better health outcomes and reduced healthcare costs.</p> <p>The tool could provide healthcare providers with valuable information about patients' medication compliance and could help facilitate better communication between patients and providers.</p> <p>The tool could collect data on medication compliance and medication-related issues for future research.</p>	<p>Weaknesses</p> <p>The tool requires weekly patient and/or caregiver input, which could be time-consuming and may deter some patients from using it regularly.</p> <p>The tool may not work for all patients; some may require additional support or interventions to improve their medication compliance.</p> <p>The tool may not be user-friendly for all patients, and some patients may require additional training or support to use it effectively.</p>
<p>Threats</p> <p>Reduced reimbursements from payers for low medication scores and adverse events.</p> <p>Increase in Covid cases will impede clinician to provide follow-up revisits with their patients.</p> <p>Regulatory penalties.</p> <p>Overworking of personnel with more overtime.</p>	<p>Opportunities</p> <p>Other medication management tools or technologies could compete with the My Weekly Medication Planner and potentially reduce its adoption and effectiveness.</p> <p>Patients may hesitate to use the tool if they perceive it as too invasive or have concerns about data privacy and security.</p> <p>The tool may not be compatible with certain medication regimens or healthcare systems, limiting its effectiveness in some contexts.</p> <p>Implementing and maintaining the tool may require significant resources, potentially limiting its scalability and sustainability.</p> <p>Increased market share.</p>

Appendix D. Budget

Category	Description	Cost
Equipment	My Weekly Medication Planner sheets, .10/sheet, need about 350 per month	\$35 per month
Supplies	Laminator and laminator supplies	\$2,000
Other expenses	None	\$0
Total		\$420 Per year plus one-time fee. Laminator and supplies \$2,000 Total: \$2,420 per year.

Appendix E. Project ROI or Cost Avoidance

Category	Description	Estimated Cost Savings per Patient per Year	Total Cost Savings per Year for 1,000 Patients	ROI or Cost Avoidance
Hospitalizations and ER visits	\$20,000 per patient per year	\$20,000	\$20,000,000	286%
Productivity and quality of life	\$5,000 per patient per year	\$5,000	\$5,000,000	71%
Total		\$25,500	\$25,000,000	357%

Appendix F. Power-Interest Grid

Stakeholder	Power (High/Medium/Low)	Interest (High/Medium/Low)
Patients	Medium	High
Service Directors	High	High
Site Directors	High	High
Medical Director	High	Medium

Appendix I. PDSA Cycle

Plan	Do	Study	Act
Develop My Weekly Medication Planner	Distribute the planner to a group of 20 patients	Collect feedback from patients on the usability and effectiveness of the planner	Analyze feedback and change the planner to improve its usability and effectiveness
Train home health clinicians (one that is in Performance in Improvement Team) on how to use the planner with patients	Monitor medication adherence in the group of patients using the planner	Compare medication adherence rates between with patients using the planner and patients not using the planner	Adjust the use of the planner based on the comparison results
Integrate the use of the planner into standard care for patients as a third component of the home health medication reconciliation process	Assess the impact of the planner on patient outcomes, such as hospitalization rates and medication-related complications	Identify any unintended consequences of the planner's use	Modify the planner or the implementation process to address any unintended consequences or improve outcomes

Appendix J. IRB Non-Research Determination Form



CNL Project: Statement of Non-Research Determination Form

Student Name: Jeramie M. Laurio _____

Title of Project:

The title of my project is adding a weekly medication planner to improve medication compliance.

Brief Description of Project:

A) Aim Statement: The outcome measure aimed to decrease the rate of drug non-adherence total score from originally 21 total points to an updated 7 total points by July 18, 2023, using the 4-item Morisky questionnaire survey in home health CHF, HTN, and/or DM patients by using a weekly medication planner.

B) Description of Intervention:

I created a team group in teams application called "Improving medication compliance" to help better coordinate with the performance improvement team. The team application can also help track and log patients who was given a medication weekly planner and for patients who didn't receive a weekly medication planner but answered the Pre-survey questionnaire to help me provide a baseline data from using the 4-items Morisky adherence scale. There are five files under files, that I have attached. One of the files attached is the "Pre- survey questionnaire call logs" to track the 20 patients who were called and answered the 4 items Morisky survey questionnaire, to help me provide a baseline on how confuse patients are with their medications without a planner. The second file is Post Survey calls- to track the subgroup chosen eight patient adherence score after they received the weekly medication planner and had used the planner for two

to three weeks. The same group of 8 patient took the same 4 item Morisky adherence pre-survey without the planner. We had a smaller test of change, and The Performance improvement team (PIT) is composed of 5 clinicians (2 HHRN ,2 HHPT and 1 HHRN Clinical Supervisor). There is 1 Rehab Supervisor who is the Preceptor for this Quality improvement project. I have set an individual teams meeting with the Home Health (HH)clinicians and trained them on how to use the weekly medication planner. After the one-on-one training completed, home health clinicians provided the weekly planner to give to their patients. Each four of them, picked 5 of their patients that have a diagnosis and chronic condition such as CHF, DM and/ or HTN and they will enter their patient information in the file “Post Survey log “. After providing their patient the planner, they taught the patient and or their caregiver on how to use the planner. Pls note, this is not for the HH clinicians to complete, but for patients and their cg to complete. The planner can be complete after visit from the initial instructions from the home health clinicians. The follow up visit will be two to three days after start of care to see if the patients correctly complete the medication planner. This will be the third component of the medication reconciliation process. The HH clinicians will use their usual medication list and my medication matters handout along with this. These are laminated planners and patients can reuse weekly. I also provided a dry erasable marker.

PDSA 2-Patient found the first weekly medication planner cumbersome. I simplified the format the weekly planner in an easy way for the patients and clinicians to understand. Based on patient and clinician feedback, the planner downgraded from laminated to paper print form as it is easier to write on and pen stays permanently on paper.

Goal- The baseline score I received after calling and completed the Pre- survey questionnaire survey using the Morisky 4- items Questionnaire survey for 20 patients without the planner is a total of 21. The post survey calls will be done after two to three weeks from receiving and using the planner. My target score originally 15, updated to a score of 7 from the baseline of 21 from the 4 - items Morisky scale after patients use a weekly medication planner by July 18,2023.

The last three files attached are the weekly medication planner, tracer logs of visit with clinicians who I taught the medications planner to patients and follow up visits to see balancing measures to assess patients on how they did their planners correctly. The file “Project charter “composed of the goals and measurement strategies goals is a document that also provides resources and evidence on how a medication planner can help with improving medications compliance.

In July 18,2023, the outcome measure result is: For each patient totaling of greater than 2 total points after answering the Morisky 4-item questionnaire signified medication adherence rate was low. Of the 20 patients, a maximum of 40 points signified very low adherence. The maximum low adherence score was 16 total points for 8 patients. After three weeks, 8 patients were further chosen as a subgroup, using a simplified revised planner. These patients had a pre-survey score of 11 points, which further decreased to 7, a 4-point improvement. Patient outcomes and satisfaction were both evident, as patients did not readmit and had better health outcomes, using the revised planner.

Conclusions: A weekly medication planner is necessary to improve compliance in a home health setting. Medication adherence affects health and safety. Clinicians who

provide great cooperation and communication with their patient's weekly medication planner also affect patient satisfaction and motivation.

C) How will this intervention change practice?

The weekly medication planner will be added as the third component of the third medication reconciliation process for all Registered Nurse and Physical Therapist Start of Care and Evaluation visits to help improve medication compliance.

D) Outcome measurements:

To increase medication compliance/adherence from a baseline of 21 to a updated target score of 7 by July 18, 2023, in 8 home health Congested Heart Failure, Hypertension, and or Diabetes patients using a pre and post 4-items Morisky adherence survey method to collect data who receives a weekly medication planner.

IRB Non-research Determination Form

EVIDENCE-BASED CHANGE OF PRACTICE PROJECT CHECKLIST *

STUDENT NAME:

Jeramie M. Laurio

DATE: 04-19-2023

SUPERVISING FACULTY: USF

Instructions: Answer YES or NO to each of the following statements:

Project Title:	YES	NO
The aim of the project is to improve the process or delivery of care with established/ accepted standards, or to implement evidence-based change. There is no intention of using the data for research purposes.	X	
The specific aim is to improve performance on a specific service or program and is a part of usual care . ALL participants will receive standard of care.	X	
The project is NOT designed to follow a research design, e.g., hypothesis testing or group comparison, randomization, control groups, prospective comparison groups, cross-sectional, case control). The project does NOT follow a protocol that overrides clinical decision-making.	X	
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.	X	
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.	X	
The project is conducted by staff where the project will take place and involves staff who are working at an agency that has an agreement with USF SONHP.	X	

The project has NO funding from federal agencies or research-focused organizations and is not receiving funding for implementation research.	X	
The agency or clinical practice unit agrees that this is a 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 colleagues, students and/ or patients.	X	
If there is an intent to, or possibility of publishing your work, you and supervising faculty and the agency oversight committee are comfortable with the following statement in your methods section: “ <i>This project was undertaken as an Evidence-based change of practice project at X hospital or agency and as such was not formally supervised by the Institutional Review Board.</i> ”	X	

ANSWER KEY: If the answer to **ALL** of these items is yes, the project can be

considered an Evidence-based activity that does NOT meet the definition of research.

IRB review is not required. Keep a copy of this checklist in your files. If the answer to

ANY of these questions is **NO**, you must submit for IRB approval.

STUDENT NAME (Please print):

Jeramie M. Laurio

Signature of Student: *Jeramie M. Laurio, RN*

 DATE_04-19-2023 _____

SUPERVISING FACULTY MEMBER NAME (Please print): *David Hinworth, DNP*

Signature of Supervising Faculty Member DATE 7/24/23

Appendix K. Outcome Data Display

Outcome Measure	Baseline (pre- intervention)	Intervention period
<p>To increase medication compliance/adherence from a baseline of 21 to an updated target score of 7 by July 18, 2023, in 8 home health Congested Heart Failure, Hypertension, and or Diabetes patients using a pre and post 4-items Morisky adherence survey method to collect data who receives a weekly medication planner.</p>	11	Decrease in 4 total Morisky score from baseline of 11 to 7.

Appendix L. Gap Analysis

Current State	Desired State	Gap
Medication non-adherence is a common problem, leading to poor health outcomes and increased healthcare costs.	Improved medication compliance, leading to better health outcomes and reduced healthcare costs.	A significant gap exists between the current state and desired state.
Patients often forget to take their medications or take them at the incorrect time.	Patients have a better understanding of their medications and are more likely to take them correctly with the use of a weekly medication planner.	A significant gap exists between the current state and desired state.
Limited resources and support for patients to manage their medications.	Increased resources and support for patients, including the use of the medication planner to improve medication compliance.	A significant gap exists between the current state and desired state.
Home health clinicians may not have the time to educate patients on proper medication use.	Healthcare providers have the time and resources to educate patients on proper medication use, including using a weekly medication planner.	A significant gap exists between the current state and desired state.
Limited patient engagement in medication management.	Increased patient engagement in medication management with the use of a weekly medication planner.	A significant gap exists between the current state and desired state.

Appendix M. Materials for Implementation and Evaluation

Materials for Implementation	Description
My Weekly Medication Planner	A physical planner that allows patients to track their medication schedule, which includes space for patients to write down medication names, when to take, and times of the day it has been taken.
Patient education materials	My Medication Matters and medication list added to medication planner and how to use it effectively.
Training for healthcare providers	Home health RNs and HHPTs will need training on introducing the medication planner to patients and answering any questions they may have.
OASIS	A comprehensive assessment that allows CMS a unique view of the social, functional, and clinical status of the patient at specific times. It measures the quality and improvement process and helps to ensure the patient meets criteria and care is reimbursable.
Materials for Evaluation	Description
Surveys	Surveys to gather feedback from patients on their experience using the medication planner, including any challenges they encounter and any benefits they experience.
Medication adherence data	Data on patients' adherence to their medication schedule before and after using the medication planner by using the survey.
Home health field clinician provider's feedback	Feedback from home health clinicians on how easy the planner was to introduce to patients and how effective it was at improving medication compliance.
Cost analysis	A cost analysis that evaluates the cost of implementing the medication planner compared to the potential cost savings resulting from improved medication compliance.

Appendix N. Project Charter

Global Aim: The global aim of this project is to decrease the number of adverse events related to medication adverse events.

- A) **Specific Aim:** The outcome measure aimed to decrease the rate of drug non-adherence total score from originally 21 total points to an updated 7 total points by July 18, 2023, using the 4-item Morisky questionnaire survey in home health CHF, HTN, and/or DM patients by using a weekly medication planner.

Background Information/Rationale for Project: Poor medication compliance is a significant problem in healthcare, affecting patients of different ages, backgrounds, and medical conditions. Patients may forget to consume their medications, take the wrong dosage, or stop taking medications prematurely due to side effects or perceived lack of efficacy. As such, poor medication compliance can have many negative consequences, including disease progression, hospital readmissions, and high healthcare costs. A medication planner is a tool that allows patients to organize time and schedule their medication doses in a simple and easy-to-follow way. It can help patients stay on track with their medication schedules, reducing the likelihood of missing doses or taking the wrong medication (Konstantinou et al., 2020). One effective approach to improving medication compliance is using a medication planner. Tan et al. (2019) found that using medication planners was associated with improved medication adherence in patients with chronic diseases, such as hypertension and diabetes. Ulley et al. (2019) found that using medication planners was associated with improved medication adherence. The study also suggested that medication planners could effectively reduce the risk of hospital readmissions in this population. Using medication planners is a simple and effective intervention to improve medication compliance and reduce the risk of hospital readmissions, particularly in the home health setting. Implementing the daily medication planner and educating patients on medication compliance can have several positive impacts, such as better long-term health outcomes, lower healthcare costs, and ultimately more hospital resources for other needy patients. In addition, medication compliance can help patients better manage their chronic conditions and thus improve their quality of life.

Project Goals:

- **Goal 1: To assess the effectiveness of a medication planner in improving medication compliance.** The primary goal is to determine if the use of a medication planner can improve medication compliance among patients. This will be done by comparing medication compliance rates between patients who use a medication planner and those who do not use a medication planner. Data will be collected over a period of 4 months (March to July) and analyzed to determine if there is a significant difference in medication compliance rates between the patients who uses a weekly medication planner and for those who do not use a weekly medication planner.

- **Goal 2: To identify factors that influence medication compliance.** In addition to assessing the effectiveness of a medication planner, the second goal aims to identify factors that influence medication compliance among patients. Age, gender, socioeconomic status, and health literacy will be examined to determine if they play a role in medication non-adherence. This information will be used to develop strategies to improve medication compliance among patients at higher risk for non-adherence.
- **Goal 3: To evaluate patient satisfaction with the medication planner.** The third goal is to evaluate patient satisfaction with the medication planner. Patients will be surveyed to determine if they found the medication planner helpful and if they would recommend it to others. This information will be used to improve the medication planner and to develop strategies to increase patient engagement and better patient healthcare outcome.
- **Goal 4: To provide patient education on weekly medication planner to help understand importance of medication compliance.** Education will be provided on how to use the medication planner.

Measurements Strategies: Outcomes, Processes, and Balancing

Category	Measure	Data Source	Target
Outcome	The outcome measure is To increase medication compliance/adherence from a baseline of 21 to a updated target score of 7 by July 18, 2023, in 8 home health Congested Heart Failure, Hypertension, and or Diabetes patients using a pre and post 4-items Morisky adherence survey method to collect data who receives a weekly medication planner.	A pre and post 4-item Morisky adherence survey method to collect data on who receives a weekly medication planner.	Target score for eight pts is 11 without use of planner, with use of planner, target score calculated to be 7, which. Is a decrease in 4 total points in Morisky score.
Process	By July 18, 2023, 100% of clinicians will use a weekly medication planner added to	Out of 20 visits, how many clinicians taught the weekly medication planner?	100% of field clinicians will use the weekly

Category	Measure	Data Source	Target
	medication reconciliation to help improve medication compliance.	Patient survey- N = # patient post-surveys that were completed after education to weekly medication planner. D = # number of surveys completed in the 20 visits	medication planner.
Balancing	By July 18, 2023, 80% of patients will use a weekly medication planner correctly.	N = # of mistakes in the planner D = # of total medications in the planner	10% or less mistakes.

Clinicians

Team:

Team Member	Role	Expertise
JL, RN	Project manager - RN Co-lead	To coordinate and collaborate between all departments to facilitate this project.
Rehab - JC- North -HHPT rehab supervisor KB - South - HHPT rehab supervisor- LW - Admin supervisor	Rehab supervisors Admin supervisor	Department supervisors Rehab supervisors - help solve field HHPT staff barriers to help achieve home healthcare plan goals approved by MD. Administrative assistant supervisor - manage department clerk staff and assist in any barriers related to office and billing work queues.
VS	Quality specialist	Provide data points and analysis. Ability to interpret and communicate any data reports findings to the team.
AA, KB, and AB -	Nursing staff	Oakland HH RNs / Richmond HH RNs

Team Member	Role	Expertise
3 quality coordinators RN AG - Quality director HH/hospice SJ - HHRN South and South supervisor TB - HH site directors and NH service directors HH/hospice RN RN AD – 1 staff nurse coordinator champion		
BA	OAK/RCH home health/hospice senior systems administrator, home care application lead	Troubleshooting in remote client, EPIC malfunctions in Home Health and Hospice.
Other	Patients and their families	OAK/RCH elderly patient populations 65 and older - 60 patients discharging home. Census - 389-internal.
Other	Department clerks	8 department clerks. Some of the department clerks' tasks are scheduler, build, divert, assigned to billing work queues or quality work queues.
Other	Hospice pharmacist	
Other	Rehab field clinicians	HHPTs South/ HHPTs North
JS	MD Co-lead	Can aid if there are medication discrepancies, change in medication orders in urgent/weekend when PCP, MD, or alternating MD is unavailable on weekends.

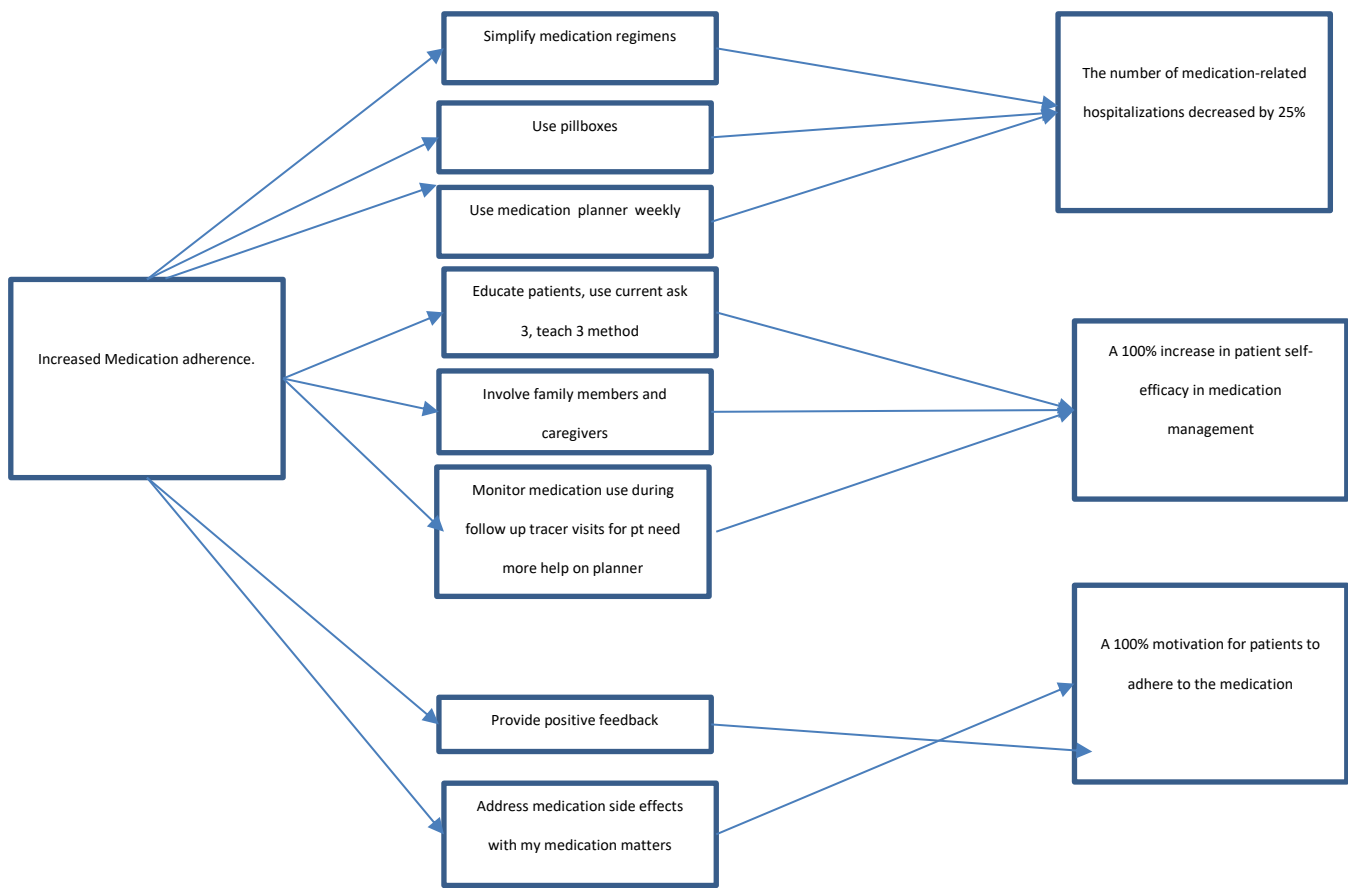
Sponsors:

NH – RN, Service Director, Home Health and Hospice

TB – RN, Site Director

AG – Quality Director

Driver Diagram for Improving Medication Compliance



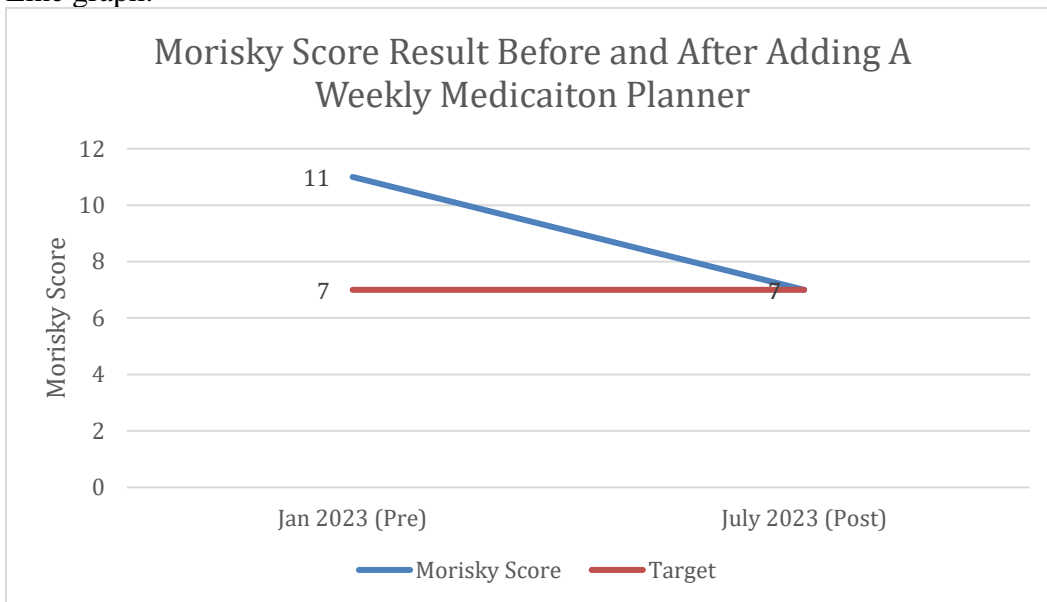
Project Timeline:

	02/23	03/23	04/23	05/23	06/23	07/23
<p>Month 1: February</p> <p>Complete development of project charter - Development of measurement, outcomes, processes, and balancing; foundation for specific and global aim. Development of the Driver Diagram. PICOT for literature reviews. Identification of changes to test. Introduce Project Charter to preceptor.</p>						
<p>Month 2: March</p> <p>Preceptor and preceptee agree on a Project Charter plan, includes timeline plan. Preceptee to show preceptor weekly medication planner templates to choose from. Upon the approval of template from quality director, introduce Project Charter to performance improvement team.</p>						
<p>Finalize project plan. Assess how many weekly medication planner sheets are needed on a weekly basis, to include extra for clinician trunk supplies. Will coordinate with Latausha Walton, administrative supervisor, to have department secretaries print and laminate to</p> <p>Also, introduce the 4 item Morisky survey questionnaire.</p>						
<p>Month 3: April</p> <p>Train RN and Rehab staff (Performance Improvement team) on the new weekly medication planner. Start doing tracer visits and phone calls - without using the medication planner for a baseline. Do at least 3 for month of April and follow-up visits for any clinicians/ patient struggling with the new medication planner. Start calling pts, at least 20 high-risk pts with CHF,DM and HTN to provide a baseline data.</p>						

	02/23	03/23	04/23	05/23	06/23	07/23
Month 4: May Do at least 3 tracer visits with additional use of a weekly medication planner and follow-up visits, as needed. Smaller test of change- 5 Home Health clinicians. Start calling the total of 8 pts and ask 4 items Morisky questionnaire presurvey to the 8 total selected subgroup patients chosen from the clinicians.						
Month 5: June Do at least 2 tracer visits to monitor using planner correctly. Monitor and analyze process measures and adjust, as needed.						
Month 6: July Analyze outcomes and report outcome findings						

Conclusions:

Line graph:



Measurement Strategies:

Population Criteria: Patients admitted to the Home Health Program with chronic conditions, examples: CHF, HTN, DM due to polypharmacy.

Data Collection Method: Data will be obtained from reports pulled from daily census for patients from a sample of 20 patient records to establish baseline. We had a smaller test of change and went down to a sample of 8 patients. After baseline data are collected, 8 patient chart audits will be reviewed for medication adherence for Quarter 1 2023. Data plan will be reevaluated every month based on results.

Data Definitions:

Data Element	Definition
JCR Medical Record Audit Report	Report for medical record audits from 5 chart reviews a week to see follow-up visits.
JCR Tracer Visit Tool	Tool for tracer visits that supervisor completes by visiting a patient with clinicians.
Medication Compliance	Medication compliance refers to “the extent to which a patient takes treatments as prescribed by their healthcare providers and is often quantified as the percentage of prescribed treatments that are taken by the patient” (Cramer et al., 2008, p. 44).
Remote client	Current charting system being used by home health clinicians that is connected to Health Connect.

Recommendations for Change

Changes to Test: 3 Interventions to Test

- Easily accessible to patients
- Start with a performance team of 5 HH clinicians
- To be able to share to other home health service areas

Recommendations for Changes

To improve medication compliance, I recommend implementing a weekly medication planner as an additional tool to support patients in managing their medication schedules. The medication planner is one-page that will be laminated; patients can reuse to record and track their medication regimen. It includes medication name, dose/route, frequency, schedules divided between morning and night purpose, and information on potential side effects.

To test the effectiveness of this intervention, we measured medication adherence using subjective measures, such as the 4 item Morisky adherence scale for patient survey.

Additionally, we gathered patient surveys for feedback on the usability and effectiveness of the medication planner. This feedback helped us with any necessary adjustments to the planner to improve its usability and effectiveness.

Overall, implementing a medication planner has the potential to improve medication adherence, which can lead to better health outcomes for patients with chronic conditions. Testing this intervention and gathering patient feedback can help refine the planner and ensure its effectiveness in improving medication compliance.

Project Charter References

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