

**Telephone Reminders to Improve Medication Adherence in a
Community Mental Health Clinic**

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Abstract

Problem: Medication non-adherence is a significant problem in a mid-size outpatient psychiatric mental health rehabilitation clinic in a large metropolitan area. It is estimated that approximately 60% of adult patients at this clinic with serious mental illness do not adhere to prescribed psychotropic medication regimen with 25% of them citing forgetfulness as the primary reason. **Purpose:** The purpose of this quality improvement project was to increase psychotropic medication adherence among adult patients with serious mental illness in this outpatient behavioral health services clinic by implementing and measuring the provision of telephone reminders. **Methods:** A telephone reminder initiative was implemented over 15 weeks in the fall of 2024. Patients included were those who opted to receive telephone reminders. All staff were educated in-person and virtually on the implementation of the telephone reminder project and the community support workers received training in the use of a telephone script. Stakeholders included one psychiatrist, four advanced practice registered nurses, five therapists, 55 community support workers, and 19 clinicians. Data on attempts made, reasons attempts were not made, calls completed, and reasons calls were not completed were collected and analyzed weekly using run charts. **Results:** Of the roughly 700 eligible patients in this clinic, 500 (71.4%) opted to not participate in this project while 200 (28.6%) opted to participate. Of these patients (n=200), attempted telephone reminder calls were successfully completed for 67.6% (n=135) of them, while they were not completed for 31.5% (n=63) due to unanswered calls or nonfunctional or inactive numbers. For 0.9% (n=2) of the patients, no calls were attempted, with no documented rationale provided by staff. **Conclusions:** The results demonstrate the feasibility of providing telephone reminders to promote medication adherence. Incorporating telephone reminder calls into staff workflows, establishing call schedules, and offering patients the option to choose call times and frequency could increase participation and promote sustainability.

Keywords: Serious mental illness, telephone reminder calls, psychotropic medication

Telephone Reminders to Improve Medication Adherence in a Community Mental Health Clinic

Medication non-adherence is a problem in a medium-sized urban outpatient psychiatric and behavioral health setting. Despite the availability of evidence-based treatments for serious mental illness (SMI), only about 60% of patients in this setting are adherent to prescribed medication regimen. Medication nonadherence poses a significant challenge to the effective management of mental health conditions, resulting in increased morbidity, increased risk of relapse, and a subsequent rise in healthcare utilization (Jawad et al., 2018). Multiple factors contributed to psychotropic medication nonadherence at this site. Reports from clinical staff and patients in the setting cited both contextual and patient-related factors as contributing factors to medication nonadherence. Some of these included inadequate communication on the importance of medication adherence, complexity of medication regimens, lack of follow-up from clinical staff, stigma, lack of understanding of diagnosis and medication, poor insight into mental illness, medication side effects, misunderstanding of medication instructions, poor understanding of the importance of medication adherence, and forgetfulness as indicated in the fishbone diagram (Figure 1). An informal survey of patients at the site, conducted by the compliance personnel, revealed that 25% of patients alluded to forgetfulness as the primary cause of medication nonadherence. At the beginning of the project, there was no documented policy for patients to be reminded to take their medication. This quality improvement project targeted forgetfulness as the root cause of nonadherence to psychotropic medication in this outpatient mental health clinic. The purpose of this quality improvement project was to increase psychotropic medication adherence among adult patients with serious mental illness in this outpatient mental and behavioral health services clinic by implementing and measuring the provision of telephone reminders.

Specific Aims and Available Knowledge

A literature review (Table 1) was conducted to examine the impact of telephonic interventions on medication adherence among patients with serious mental illness (SMI). The terms serious mental illness, schizophrenia, bipolar disorder, depression, medication adherence, telephone calls, SMS, text message, and telehealth were searched in Google Scholar, PsycINFO, and EBSCO electronic databases (Appendix A, citation manager and Figure 2, PRISMA Flow Diagram).

Menon et al., (2018) showed that a 3-month text message reminder improved medication adherence in patients with bipolar I disorder. Schulze et al., (2019), found that regular telephone call reminders improve medication adherence in patients with schizophrenia. To date, evidence suggests that telephonic interventions including text messaging and phone calls improve medication adherence and clinical outcomes in patients with serious mental illness (Simon et al., 2022).

Effective treatment for patients diagnosed with SMI in this clinic was significantly impeded by medication nonadherence. However, there was an opportunity to provide a new intervention, telephone reminders, that have been demonstrated to be effective in similar settings. From the review and synthesis of evidence (Tables 1 and 2), it was evident that personalized telephonic reminder calls were effective in improving adherence to psychotropic medications among patients with SMI. The strength of evidence not only highlighted the effectiveness of telephonic reminders but also revealed a consistent narrative across studies. In the domain of SMI treatment, telephonic reminders offered a real solution to improve health outcomes and improve quality of life (Al Dameery, et al., 2023).

The purpose of this quality improvement project was to increase psychotropic medication adherence among adult patients with serious mental illness in this outpatient behavioral health services clinic by implementing and measuring the provision of telephone reminders, an evidence-based, research supported practice change.

Rationale

For this project, the Promoting Action on Research Implementation in Health Services (PARiHS) framework (Figure 3) was used as the theoretical framework. According to this framework, the successful integration of evidence into practice is influenced by the specific context or setting in which the new evidence was introduced, the way it was introduced, and the overall quality of the evidence (Kitson et al., 1998). Elements included in the framework are evidence, facilitation, and context. Because of the complex and multidimensional characteristics of SMI, approaches to improve medication adherence in this outpatient mental health setting presented varying challenges. The three elements of the PARiHS framework provided guidelines for the implementation and helped identify areas where the project could be modified and improved.

While the element of evidence was based on knowledge and research, the element of facilitation was the process by which the project lead (PL) educated, trained, and assisted key stakeholders to invest in the project, and the element of context was the site where the project was happening, (Kitson, et al., 1998). Each of these elements was significant in the successful implementation of the project. Use of the PARiHS framework facilitated the examination of project implementation and the identification of specific areas necessitating improvement.

Methods

Context

The setting was an urban medium-sized organization serving patients with psychiatric and behavioral disorders. The organization features a multidisciplinary group consisting of two teams. The medical team was comprised of a psychiatrist and four advanced practice registered nurses (APRNs). The clinical team included five therapists, 55 community support workers (CSWs), and 19 clinicians. These teams work in collaboration to provide culturally responsive and patient-centered care and encourage active participation from patients and families in treatment planning and clinical decisions. Biweekly leadership meetings and monthly medical meetings were conducted to assess patient health outcomes.

The Context Assessment Index (CAI) was used to evaluate the organization's readiness for evidence-based practice (EBP) implementation (Table 3). The CAI, consisting of 37 items rated on a 4-point Likert scale, assessed culture, leadership, and evaluation (McCormack et al., 2009). The organization scored 80% for culture (Table 4), 86% for leadership (Table 5), and 77% for evaluation (Table 6), resulting in an overall score of 81%. These results demonstrated that the organization had a supportive culture, effective leadership, and evaluative practices conducive to EBP implementation.

Prior to implementation of this QI project, there was no structure or process in place to support medication adherence such as reminders for patients to take medication (Figure 4). Because of this, a new process (Figure 5) was established that incorporated a telephonic reminder system with a goal of improving medication adherence among patients with SMI.

Intervention

The purpose of this quality improvement project was to increase psychotropic medication

adherence among adult patients with serious mental illness in this outpatient behavioral health services clinic by implementing and measuring the provision of telephone reminders.

Community support workers (CSWs), trained in using a standardized telephone script, contacted patients weekly to remind them to take their prescribed medications. These calls were aimed at addressing forgetfulness, improving adherence, and providing support that encouraged patients to adhere to their medication regimen. The frequency of the reminders was patient-centered and aligned with their medication schedules. The project timeline was included in a Gantt Chart (Appendix B). Additional details regarding goals, measures, and analysis are outlined in Appendix C, proposal and goals. The number of attempted, completed, and not attempted reminder calls were entered into the Telephonic Reminder Survey Tool (Appendix E) through a URL into REDCap, a secure, HIPAA compliant, password protected server with dual authentication. This telephone reminder initiative was executed over a 15-week period in the fall of 2024.

Measures

The structure goal was for 100% of staff to be educated and trained in the use of a structured telephone script. The structure goal was measured as a proportion of the number of staff who received education and training to the number of staff who were eligible to receive education and training. An attestation of the completion of education and training (Appendix D) created in REDCap was sent to staff as a URL for them to demonstrate that they completed the training.

The process goal was for 100% of eligible patients to receive telephone reminder calls. The measure was a REDCap survey, telephonic reminder survey (Appendix E) to track the number of attempted and completed reminder calls. The analysis was a proportion of the number

of patients who were sent telephonic reminders to the number of patients who were eligible to receive the reminder calls.

To ensure equity in the intervention and inclusion of all eligible populations, all approximately 700 patients in this outpatient mental health setting diagnosed with SMI according to the criteria of the American Psychiatric Association (APA, 2022) and being prescribed psychotropic medication were given the opportunity to participate in this quality improvement project. However, of these 71.4% (n=500) chose not to participate in the project and opted not to receive telephone calls and were not included in the initiative.

Analysis

A run chart (Figure 7) was used to display the weekly percentage of completed telephone reminder calls over a 15-week implementation period. The central line (CL), orange, with a median value of 55%, helped in identifying meaningful patterns in process performance. The goal for this intervention was 100% of completed telephone reminder calls, shown on the run chart, in green, as the target. The three detection rules (shift, trend, and runs) were employed to identify any special-cause signals. Fifteen weeks into the project, the median line remained below the goal. No shifts or trends were observed. The chart displayed 2 runs showing special-cause variation, suggesting that something outside the steps of the process is affecting the process such that the process becomes unstable and unpredictable. The data demonstrated a sustained change above the CL beginning in week 8, suggesting process improvement. A clear upward tendency was observed from week 6 through week 13, with peak performance bordering on 80%, in contrast to the initial weeks when completion rates were below 10%. These findings indicated that the intervention produced measurable improvements in adherence to the telephone reminder protocol, although the 100% goal was not met.

The initial low performance may have been influenced by staff unfamiliarity with the new protocol and workflow adjustments. The marked improvement, beginning in week 6, reflected increased staff familiarity with the new workflow, operational efficiency, and adaptation to the process. Periods of lower performance on the other hand, such as in weeks 1-5 and week 15, signaled potential points of system strain or procedural inconsistencies.

Time served as an essential variable in this quality improvement initiative, especially when assessing weekly tendencies to determine whether observed improvements were sustained or transient. By using time-series analysis i.e., plotting the percentage of completed calls weekly, the run chart enabled the detection of a special-cause variation which creates confidence that the intervention produced the pattern of change observed in the results. The observed pattern confirmed that performance improvements were not random but likely attributable to intentional process changes.

Ethical Considerations

This quality improvement project was implemented under a Non-human Subject's Research determination from the Human Research Protections Office (HRPO) of the UMSOM Institutional Review Board. The site had a review board. They, nonetheless, accepted and complied with the Non-human Subject Research determination from the UMSOM Institutional Review Board (IRB). Calls were made in a private area where unauthorized individuals could not overhear the conversation. All data related to calls attempted, completed, not completed, or not attempted was entered via a URL directly into REDCap, a HIPAA-compliant, password-protected server with dual authentication. Patients included in the project are those who verbally consented and opted to receive telephone reminders. No client identifiers were used, curtailing

the risk of compromising confidentiality. The project lead and faculty advisor were the only ones with access to the data.

Results

During the project implementation, community support workers (CSWs) entered data on weekly telephone reminder calls into REDCap (Appendix A). Data collected included the number of reminder calls attempted (1,171), the number of reminder calls not attempted (10), number of reminder calls completed (799), and the number of reminder calls not completed (372). Percentage was calculated for the number of patients for whom calls were successfully attempted by dividing the number of completed calls by the number eligible to receive calls. Percentage was calculated for the number of calls attempted but not completed by dividing the number of incomplete calls by the number eligible to receive calls. Percentage was calculated for the number of reminder calls not attempted by dividing the number of calls not attempted by the number eligible to receive calls (Figure 6).

During the fifteen weeks of data collection, 68.2% of attempted reminder calls were completed. The median percentage of patients who received completed reminder calls each week was 55%. The lowest percentage of reminder calls completed was in week 1, with 4% of patients receiving a reminder. Week 13 was the week with the highest percentage indicating a strong week of reminder call completion (82%).

Of the roughly 700 eligible patients in this clinic, 500 (71.4%) opted to not participate in this project while 200 (28.6%) opted to participate. Of these patients (n=200), attempted telephone reminder calls were successfully completed for 67.6% (n=135) of them, while they were not completed for 31.5% (n=63) due to unanswered calls or nonfunctional or inactive

numbers. For 0.9% (n=2) of the patients, no calls were made, with no documented rationale provided by staff (Figure 6).

The run chart was analyzed using three detection rules (shift, trend, and runs) to find any special-cause signals. Fifteen weeks into the project, the median line stayed below the goal line. No shifts or trends were observed. The data line crosses the median line once, indicating that the run chart has a total of 2 runs, too few runs, signifying special-cause variation (Figure 7). The run chart strongly suggests a substantial change in the process goal, with less than a 5% chance that this change is caused by random variation indicating that the intervention has had an impact on the process goal.

Discussion

In the initial two weeks of implementation, telephone call completion rates are less than satisfactory, demonstrating minimal engagement as community support workers learn and adapt to the new process. A notable improvement is recorded in week 3, followed by a temporary decline in weeks 4 and 5. The improvement in week 3 can be attributed to an initial increase in motivation and the fall in weeks 4 and 5 can be ascribed to challenges in maintaining consistency and staff engagement. Beginning with week 6, an upswing emerges, signifying a boost in the intervention's efficacy. Call completion rates peak in week 8 and remain very stable during weeks 10-14. The median line shows the central tendency of call completion rates throughout the intervention period, with initial weeks falling below this threshold and subsequent weeks demonstrating continuous progression above the median. Notwithstanding this upward tendency, the completion rate continues to fall short of the established goal, signifying that further improvements are necessary to attain optimal adherence. During week 15, the completion rate

reverts to its median level. This decline raises questions about sustainability and the need for reinforcement strategies to maintain performance over time.

The observed pattern suggests a gradual improvement in call completion rates following intervention initiation, with significant fluctuations in the initial weeks presumably reflecting implementation challenges or adaptation phases. The sustained improvement observed between weeks 7-14 indicates a positive effect of the intervention; however, the inability to reach the goal underscores the necessity for supplementary measures such as improved staff engagement, modifications in patient outreach, and reinforcement strategies (i.e., in the form of incentives) introduced by leadership. The decline in week 15 may likely be ascribed to external contextual factors that might affect both the implementation of the telephone reminder intervention and patient response behaviors such as staffing, patient accessibility, and seasonal variations.

In general, the results demonstrate the use of telephone reminder calls as a viable strategy to support psychotropic medication adherence in patients with serious mental illness. The intervention can be well-integrated into clinic workflow and requires minimal training or resources. Sustained improvement over the 15-week period suggests that telephonic reminders are both feasible and sustainable in similar outpatient behavioral health settings. The result of this quality improvement project is consistent with findings from the literature, for example, Uslu et al., (2020) found that the use of telephone intervention problem solving (TIPS) as a telenursing application can prevent patients with schizophrenia from voluntarily discontinuing their medication and improve medication adherence. A personalized telephonic intervention for outpatients led to improved medication adherence after hospital discharge (Schulze et al., 2019).

Strengths of this project include a well-defined target population, a structured intervention, and the use of run chart to track real-time progress. Limitations include potential selection bias (limited to patients with phone access), staff complaints about increased work burden, unavailability of patients, unanswered or declined calls, and reliance on process measures (call completion) as a proxy for medication adherence. The absence of racial and ethnic diversity also constitutes a limitation of this project. Future QI initiatives may consider incorporating pharmacy refill data or self-reported adherence measures to assess the impact of telephone reminders on medication adherence outcomes.

Conclusions

This quality improvement project reveals that telephonic reminder intervention can be effective as a potential means to improve psychotropic medication adherence in adults with serious mental illness. Analysis of the run chart shows that there was an improvement in the number of completed calls over time as staff became more accustomed to the process and began to include it in their workflow. Although the median performance requirement was exceeded in subsequent weeks, the goal remained beyond reach, and a dip in the final week raises concerns over long-term sustainability. The results demonstrate the feasibility of providing telephone reminder calls to promote medication adherence among patients with SMI in outpatient psychiatric mental health rehabilitation clinics. Incorporating telephone reminder calls into staff workflow, establishing call schedules, and offering patients the choice to choose call times and frequency could increase participation and promote sustainability. Reinforcement mechanisms, including incentives, and the measurement of treatment adherence are suggested to help overcome obstacles and achieve goal attainment in future initiatives.

Implementation of this evidence-based strategy resulted in sustained improvement over time. The findings support a broader use of telephonic interventions within mental health settings that can contribute to efforts aimed at reducing health disparities and improving treatment outcomes for individuals with SMI. The intervention can be well-integrated into clinic workflow and requires minimal training or resources.

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Table 1

Literature Evidence Review

Citation #1 (hyperlink) Al Dameery, K., Valsaraj, B. P., Qutishat, M., Obeidat, A., Alkhaldeh, A., Al Sabei, S., Al Omari, O., ALBashtawy, M., & Al Qadire, M. (2023). Enhancing medication adherence among patients with schizophrenia and schizoaffective disorder: Mobile App Intervention Study. <i>SAGE Open Nursing</i> , 9, 23779608231197269. https://doi.org/10.1177/23779608231197269 This is a quasi-experimental study with a sufficient sample size with some control and a fairly definitive conclusion. Level: II B					
Purpose or Hypothesis	Type of Evidence and Research Design	Sample (population, size, setting)	Intervention Procedures	Primary Outcome/Measures	Results Conclusions
The purpose of this study was to evaluate the impact of a mobile phone app (MyTherapy—pill reminder and medication tracker) on medication adherence among adults with schizophrenia and schizoaffective disorders.	Quasi-experimental time series design.	<p>Sampling Technique: Convenience.</p> <p>Eligible Participants: Participants' eligibility was assessed by a psychiatric nursing specialist with a master's degree in mental health nursing. 51 adult patients with schizophrenia and schizoaffective disorder were recruited. 33 were unemployed and 18 were employed. 28 of the 51 participants were male and 23 females. 26 participants were single, 94.1% lived with family ($n = 48$), 78.4% of the sample reported taking medication alone ($n = 40$), and 41.2% had secondary</p>	<p>Due to the attrition rate of patients with schizophrenia, the intervention group acted as their own control group.</p> <p>Mobile phone app MyTherapy – pill reminder and medication tracker to remind participants to take their medication.</p> <p>Participants were encouraged to record their medication intake by using the reminder system (MyTherapy – pill reminder and medication tracker) over the course of 12 weeks.</p>	<p>Dependent Variable: Medication adherence.</p> <p>DV Measure: The dependent variable was measured using self-reporting medication adherence rating scale (MARS).</p>	<p>Statistical Results:</p> <p>Three paired-sample t tests were used to make comparisons between pretest I, pretest II, and posttest I. Post hoc pairwise comparisons were then conducted. The first paired-sample t test between pretest I and pretest II found no significant difference in average adherence at the baseline ($M = 5.1, SD = 1.5$) and 12 weeks later ($M = 4.9, SD = 1.3; t = .904, p = .37$). A second paired-sample t test between pretest I and posttest I of the mobile phone app found a significant difference in average adherence from pretest II ($M = 5.3, SD = 1.5$) to posttest I ($M = 6.45, SD = 1.6; t = 7.98, p < .01$). A third paired-sample t test found a significant difference in average adherence between pretest II ($M = 5.0, SD = 1.3$) and posttest I ($M = 6.4, SD = 1.6; t = 6.8, p < .01$).</p> <p>Conclusion: The researchers concluded that MyTherapy-pill reminder mobile app has the potential</p>

		<p>education ($n = 21$).</p> <p>Setting: Outpatient clinic in Oman.</p> <p>Inclusion criteria: a) diagnosed with schizophrenia or schizoaffective disorder for at least a year; (b) visiting the outpatient clinics; (c) aged 18 years and older; (d) able to read and speak Arabic; (e) having a smartphone supporting Android apps; and (f) able to give informed consent.</p> <p>Exclusion criteria: a) cognitive impairment based on the reports or initial screening; and (b) any visual or auditory impairment that impacted the use of the mobile app.</p> <p>Power analysis: 43 participants were required to meet 80% Beta, .05 alpha, and medium effect size.</p> <p>Power analysis met.</p>			<p>to significantly improve medication adherence in patients with schizophrenia and reduce the risk of relapse or repeated hospitalization.</p>
<p>Citation #2 (hyperlink) Chen, H. H., Hsu, H. T., Lin, P. C., Chen, C. Y., Hsieh, H. F., & Ko, C. H. (2023). Efficacy of a smartphone app in enhancing medication adherence and accuracy in individuals with schizophrenia during the COVID-19 Pandemic: Randomized controlled trial. <i>JMIR Mental Health, 10</i>, e50806. https://doi.org/10.2196/50806. This is a randomized controlled trial with sufficient sample size, adequate control, and a definitive conclusion. Level I A</p>					

Purpose or Hypothesis	Type of Evidence and Research Design	Sample (population, size, setting)	Intervention Procedures	Primary Outcome/Measures	Results Conclusions
<p>The purpose of this study was to explore the effectiveness of a smartphone app (MedAdhere) on medication adherence; its accuracy in patients with schizophrenia, and to assess their psychiatric symptoms and cognitive functions.</p>	<p>Randomized controlled trial (RCT).</p>	<p>Sampling Technique: Convenience sampling.</p> <p>Participants were recruited from a psychiatric daycare center across 2 medical centers and 1 regional hospital.</p> <p>Inclusion criteria: 1) be diagnosed with schizophrenia by a psychiatrist according to the <i>Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition</i>; (2) aged between 20 and 65 years; (3) able to read traditional Chinese; (4) owned a smartphone; and (5) be currently admitted to a psychiatric daycare center.</p> <p>Exclusion criteria: patients with intellectual disability or severe cognitive functional impairment (Mini-Mental State Examination [MMSE] score <17).</p> <p>Accepted: 105 randomly assigned to</p>	<p>Control Protocol: Twice a day medication. Daytime medication administered at the daycare center with assistance and support from staff during daily activities. Nighttime medication is taken by the patient without any intervention.</p> <p>Intervention Protocol: Twice a day medication administered at the daycare center with assistance and support from staff during daily activities. Intervention for nighttime medication is conducted with the MedAdhere app.</p>	<p>Dependent Variable: Medication adherence is defined as the total doses taken by all participants over 12 weeks.</p> <p>DV Measure: The dependent variable was measured through visual observation by the primary nurse or health care provider of patient taking medication.</p>	<p>Statistical Results: chi-square and Mann-Whitney <i>U</i> test of comparison revealed a significant statistical difference between the control group and the intervention group. ($P < .05$).</p> <p>Conclusion: The researchers concluded that the MedAdhere app effectively and significantly improved medication adherence (94.72% intervention group compared to 64.43% control group) and, subsequently, psychiatric symptoms of patients with schizophrenia.</p>

		<p>the experimental or control group. 11 patients in the experimental group did not complete this study. 94 participants completed all processes of the study protocol.</p> <p>Power analysis: 68 participants are required to meet 80% Beta, 0.05 alpha, and moderate effect size. Power analysis met.</p> <p>The p-value for demographics and baseline outcomes as well as for is greater than the value set for p = .05. There were differences in psychiatric symptoms from baseline to end of intervention with p-value <.05 thus demonstrating heterogeneity.</p>			
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Citation #3 (hyperlink) Cullen, B. A., Rodriguez, K., Eaton, W. W., Mojtabai, R., Von Mach, T., & Ybarra, M. L. (2020). Clinical outcomes from the texting for relapse prevention (T4RP) in schizophrenia and schizoaffective disorder study. *Psychiatry Research*, 292, 113346. <https://doi.org/10.1016/j.psychres.2020.113346> This is a randomized controlled trial with a sufficient sample size with some control and a fairly definitive conclusion. Level I C

Purpose or Hypothesis	Type of Evidence and Research Design	Sample (population, size, setting)	Intervention Procedures	Primary Outcome/Measures	Results Conclusions
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<p>To investigate whether a novel text-messaging program impacted targeted clinical outcomes (increase medication adherence and reduce relapse) in patients with schizophrenia and schizoaffective disorder (SAD).</p>	<p>RCT</p>	<p>Sampling design: Random sampling.</p> <p>Participants were recruited from a hospital-based community psychiatry program.</p> <p>Adult patients attending a hospital community treatment center.</p> <p>Participants had an average age of 49 years. 2 in 5 were female and the most identified as African Americans.</p> <p>There was no power analysis.</p> <p>With regards to demographic characteristics, homogeneity was maintained. However, there was significant difference in positive symptoms between control group and intervention group, thus suggesting heterogeneity.</p>	<p>The intervention and control patients continued to attend their regular clinic appointments.</p> <p>Control group: attend their regular clinic appointments.</p> <p>Intervention group: in addition to attending regular clinic appointments, the intervention patients met with their providers to select their 5 common symptoms of relapse, their preferred daily timeframe to receive texts, the symptom threshold to alert their provider, and their emergency contact information.</p> <p>Received, on average, 3 messages per week that either encouraged them to take their medication or provided simple solutions for common side effects.</p>	<p>Dependent Variable: Medication adherence.</p> <p>DV Measure: The dependent variable was measured using the Brief Adherence Rating Scale (BARS), a 4-item scale designed for use in community settings with individuals with schizophrenia/SAD.</p>	<p>PANSS scores. Positive PANSS scores were significantly lower at baseline (M; 16.5 vs. 13.3, p=0.03) and at 6-month follow-up (M: 14.3 vs. 11.4, p=0.03) for the intervention group. Symptoms of depression and mania were not significantly different between the two groups across the 6-month study.</p> <p>Improved oral medication adherence was suggested at both 3 and 6 months for those in the intervention group (69% vs 89%, p=0.11).</p> <p>Conclusion: The researchers found a significant improvement in adherence to injectable medication and a trend toward improved oral medication adherence.</p>
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<p>Citation #4 (hyperlink) Menon, V., Selvakumar, N., Kattimani, S., & Andrade, C. (2018). Therapeutic effects of mobile-based text message reminders for medication adherence in bipolar I disorder: Are they maintained after intervention cessation? <i>Journal of Psychiatric Research</i>, 104, 163–168. https://doi.org/10.1016/j.jpsychires.2018.07.013. This is a randomized controlled trial design study with a sufficient sample size with adequate control, reasonably consistent results, and a definitive conclusion. Level: I B</p>					
Purpose or Hypothesis	Type of Evidence and Research Design	Sample (population, size, setting)	Intervention Procedures	Primary Outcome/Measures	Results Conclusions

<p>The purpose of this study was to determine whether text SMS reminders improve medication adherence in patients with bipolar I disorder even after discontinuation of the intervention.</p>	<p>Randomized controlled trial design.</p>	<p>Sampling Technique: Convenience sampling.</p> <p>Setting: Hospital</p> <p>Inclusion criteria: Patients are clinically stable outpatients; aged 18–65 years; with Bipolar I Disorder (BD-I) diagnosis; and a stable drug/ dose regimen for at least the past 1 year.</p> <p>Exclusion criteria: Patients with Hamilton Depression Rating Scale (HDRS) scores ≥ 7 and Young Mania Rating Scale (YMRS) scores ≥ 8. Patients/caregivers without access to mobile phones and patients/caregivers who were unable to read either English or the regional language (Tamil).</p> <p>Accepted: 132 participants, 62 randomized to intervention group and 70 to control. 34 males in the intervention group and 35 in the control. 16 (3 from intervention group and</p>	<p>Control Group: Received treatment as usual (TAU) alone for the entire duration of the 6-month study. TAU included pharmacologic treatment (with medications such as mood stabilizers and/or antipsychotics) and psychosocial treatment strategies, as indicated. Serum lithium monitoring and blood work-up, as per standard monitoring protocols, and continued follow-up with drug refills in the Bipolar Disorders Clinic, are part of TAU.</p> <p>Intervention Group: Received identical twice-weekly, text SMS reminders in addition to TAU for the first 3 months and no text SMS i.e., TAU alone for the next 3 months post text MSM.</p>	<p>Dependent Variable: Medication adherence.</p> <p>DV Measure: The dependent variable was measured through blood work-up and follow-up with medication refills in the clinic to ascertain medication adherence.</p>	<p>Statistical Results: There is statistically significant difference between the intervention group and the control in both the 3-month intervention period ($F = 16.50$, $df = 1, 110$, $p < 0.001$) and at the end of the 3 month follow up ($F = 13.15$, $df = 1, 98$, $p < 0.001$). These findings demonstrate that the SMS intervention improved medication adherence which persisted during the follow-up, after SMS intervention was discontinued.</p> <p>Conclusion: The researchers showed that a 3-month text message reminder improved medication adherence in patients with bipolar I disorder and that the benefits were sustained for at least 3 months after discontinuation of the SMS intervention when the researchers concluded their studies.</p>
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		<p>13 from the control) participants dropped out of the trial by the end of the 3-month intervention period.</p> <p>Based on demographic data, the groups were homogeneous. There was a significant difference between the intervention group and control group in medication adherence post-three-month intervention, $p < .001$ demonstrating heterogeneity in this regard.</p> <p>Power analysis:</p> <p>120 participants were required to meet 80% statistical power with a medium effect size of .5. Power met.</p>			
<p>Citation #5 (hyperlink) Schulze, L. N., Stenzel, U., Leipert, J., Schulte, J., Langosch, J., Freyberger, H. J., Hoffmann, W., Grabe, H. J., & van den Berg, N. (2019). Improving medication adherence with telemedicine for adults with severe mental illness. <i>Psychiatric Services (Washington, D.C.)</i>, 70(3), 225–228. https://doi.org/10.1176/appi.ps.201800286 This is an open-label, rater-blinded, randomized controlled trial design study with sufficient sample size with adequate control, reasonably consistent results, and a definitive conclusion. Level: IB</p>					
<p>Purpose or Hypothesis</p>	<p>Type of Evidence and Research Design</p>	<p>Sample (population, size, setting)</p>	<p>Intervention Procedures</p>	<p>Primary Outcome/Measures</p>	<p>Results Conclusions</p>

<p>The study evaluated a telephone call and text message intervention to improve adherence to medication among patients with severe mental illness.</p>	<p>A randomized clinical trial.</p>	<p>Sample type: Convenience sampling.</p> <p>Setting: Ambulatory</p> <p>120 participants were recruited in three psychiatric hospitals from either daycare units or inpatient wards.</p> <p>Inclusion criteria: were age 18 or older.</p> <p>A diagnosis of schizophrenia or bipolar disorder.</p> <p>Exclusion criteria: Patients not prescribed antipsychotic medication.</p> <p>Patients with suicidal tendencies.</p> <p>Patients who were unreachable by phone.</p> <p>Patients with scheduled in-patient treatments within the next 6 months.</p> <p>No power analysis was conducted.</p>	<p>Control group: Care as usual, defined as basic medical care involving occasional visits to a physician to evaluate convalescence.</p> <p>Intervention group: In addition to care as usual, the intervention group received proactive, regular telephone calls every second week for six months from three specially trained nurses to increase medication adherence. The telephone calls consist of standardized and individualized parts. If medication nonadherence or intolerable side effects are reported, participants are advised to see a physician. There is the option to receive individual text messages referring to a specific topic raised in the telephone calls.</p>	<p>Dependent Variable: Medication adherence.</p> <p>DV Measure: MARS-D is a self-report measure.</p>	<p>Results: Logistic regression analysis showed that intervention group participants were significantly more likely than control group participants to be medication adherent at 6 months (odds ratio [OR]=4.11, 95% confidence interval [95% CI]=1.47–11.45, p=.007)</p> <p>Conclusion: The researchers found positive effects on medication adherence after six months of intervention.</p> <p>A personalized phone intervention for outpatients led to better medication adherence after hospital discharge.</p>
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Citation #6 (hyperlink) Uslu, E., & Buldukoglu, K. (2020). Randomized controlled trial of the effects of nursing care based on a telephone intervention for medication adherence in schizophrenia. *Perspectives in Psychiatric Care*, 56(1), 63–71. <https://doi.org/10.1111/ppc.12376>. This is a randomized controlled trial study with a sufficient sample size with adequate control, reasonably consistent results, and a definitive conclusion. Level: IB

Purpose or Hypothesis	Type of Evidence and Research Design	Sample (population, size, setting)	Intervention Procedures	Primary Outcome/Measures	Results Conclusions
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<p>The purpose of this study was to determine the effect of telephone intervention problem-solving (TIPS) on medication adherence in individuals diagnosed with schizophrenia.</p>	<p>This is a prospective, randomized controlled trial using a pre- and post-test design.</p>	<p>Sampling technique: Hospitalized participants diagnosed with schizophrenia were recruited from a university hospital.</p> <p>Setting: University Hospital</p> <p>Participants: 46 Adult patients diagnosed with schizophrenia; average age 38.9 years. 58.7% were women and 67.4% were single. The group was heterogeneous with a p-value < 0.001.</p> <p>Inclusion criteria: (i) sufficient cognitive competence to participate in the study voluntarily, (ii) access to a fixed telephone, and (iii) competence in speaking Turkish</p> <p>Exclusion criteria: (i) the presence of a different psychiatric diagnosis in addition to schizophrenia, (ii) refusing treatment even after the doctor’s advice and leaving the clinic, (iii) hearing loss, and (iv) substance abuse.</p> <p>Removal criteria: (i) a desire to withdraw at any stage of the study</p>	<p>All participants received individual medication adherence training (MAT) as well as medication information and solutions to medication side effects.</p> <p>Control group: received routine clinical care.</p> <p>Intervention group: in addition to routine clinical care, the intervention group received information on the TIPS program after MAT. A day and time for TIPS were planned with the patient before discharge. TIPS was applied on the day and time scheduled by a patient. TIPS were applied by the researcher once a week for a total of eight times over 2 months. A TIPS Manual was used during the calls and data collected during TIPS were noted during each telephone interview.</p>	<p>Dependent Variable: Medication adherence.</p> <p>DV measure: MARS scores.</p>	<p>Statistical Results: A statistically significant decrease in MARS scores was observed for the participants in the control group (P = 0.001), whereas a statistically significant increase was observed in the intervention group (P < 0.001) post intervention. In comparisons between the groups after TIPS, the MARS scores of the intervention group were statistically higher than those of the control group (P < 0.001).</p> <p>Conclusion: The authors of this study found that the use of TIPS as a telenursing application can prevent patients with schizophrenia from voluntarily discontinuing their medication and increase their belief in the necessity of medication and medication adherence.</p>
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		<p>and (ii) lack of participation in three successive telephone interviews.</p> <p>Power analysis: Initial power estimated to be 80% with a 5% type 1 error, and effect size $d=0.64$. 31 participants were required to meet 80% power.</p>			
<p>Citation #7 (hyperlink) Xu, D. R., Xiao, S., He, H., Caine, E. D., Gloyd, S., Simoni, J., Hughes, J. P., Nie, J., Lin, M., He, W., Yuan, Y., & Gong, W. (2019). Lay health supporters aided by mobile text messaging to improve adherence, symptoms, and functioning among people with schizophrenia in a resource-poor community in rural China (LEAN): A randomized controlled trial. <i>PLoS Medicine</i>, 16(4), e1002785. https://doi.org/10.1371/journal.pmed.1002785. This is a randomized controlled trial with a sufficient sample size with adequate control and a definitive conclusion. Level: IB</p>					
Purpose or Hypothesis	Type of Evidence and Research Design	Sample (population, size, setting)	Intervention Procedures	Primary Outcome/Measures	Results Conclusions

<p>These researchers hypothesized that the inclusion of mobile texting would improve schizophrenia care in a resource-poor community setting compared to a community-based free-medicine program alone.</p>	<p>A 2-arm randomized controlled trial.</p>	<p>Setting: Community-dwelling. Random sampling. Participants: Adults with at least 7 years of education, have had schizophrenia for 18 years with minimal to mild symptoms and nearly one-fifth loss of functioning, and were mostly living with family (95%) and had low incomes. No p-value was calculated for baseline characteristics. Thus, the groups can be considered to be homogeneous. Inclusion criteria: 1) being community-dwelling; (2) being an enrollee of the National Continuing Management and Intervention Program for Psychoses, known as the “686 Program,” (3) having a primary diagnosis of schizophrenia, (4) being on oral psychotropic medications, and (5) physically residing in 1 of 9 rural townships</p>	<p>Control group: Received a free antipsychotic medication program (the 686 Program). Intervention group: Received the 686 Program plus LEAN involving the recruitment of lay health supporters; an electronic platform with mobile texting for medication reminders, health education, and monitoring; the awarding of token gifts for positive behavioral improvement, and integration of the texting with the health system.</p>	<p>Dependent variable: Antipsychotic medication adherence. Outcome measurement: A score of adherence to antipsychotic medications – the proportion of doses taken in the last 30 days. Measurement was based primarily on unannounced home-based pill counts and included both objective and subjective measures when assessing adherence. 2 home-based pill counts were effectuated 30 days apart at the fifth and the sixth months. The difference between the 2 counts was considered the number of pills taken.</p>	<p>Statistical results: Adjusted mean difference [AMD] 0.12 [95% CI 0.03 to 0.22]; p = 0.013; effect size 0.38. Conclusion: The researchers noted strong evidence of an intervention effect on adherence to antipsychotic medications. Medication adherence measured by the unannounced home-based pill counts was 27% greater in the intervention group (0.61) than in the control group (0.48). The researchers also noticed strong evidence of a substantial reduction in the risk of relapse (26 [21.7%] of 120 interventional participants versus 40 and the risk of re-hospitalization (9 [7.3%] of 123 interventional participants versus 25 [20.5%] of 122 controls.</p>
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		<p>of Liuyang Municipality.</p> <p>Exclusion criteria: 1) were hospitalized due to schizophrenia at the time of recruitment, (2) had missed the most recent 3 consecutive past drug refills, or (3) were physically incapable of using voice and text messaging (hearing and/or vision impairment</p> <p>Power Analysis: A total sample size of 258 participants (129 per group) was required to achieve 85% power to detect an increase in medication adherence from 0.72 to 0.85, assuming a 5% type I error and 10% attrition. Power met.</p>			
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Table 2
Evidence Synthesis Table

Project Title: Improving medication adherence in outpatient adult clients with serious mental illness (SMI).			
PICOT: How do weekly telephonic reminders impact oral medication adherence in adults with serious mental illness?			
JHNEBP Model Level	Total Number of Sources	Author and Quality Rating of each study	Synthesis of Findings
<p>Level I Experimental study: Randomized Controlled Trial (RCT). Systematic review of RCTs with or without meta-analysis</p>	5 randomized controlled trial studies.	Xu et al B Uslu et al B Schulze et al B Menon et al B Chen et al A	All five studies found that telephone reminders such as phone calls or SMS messages improve adherence to antipsychotic medications. Chen et al. (2023) reported a significant reduction in psychiatric symptoms of patients with schizophrenia. Xu et al. (2019) also found strong evidence of a substantial reduction in the risk of relapse and the risk of re-hospitalization with the use of telephone reminders.
<p>Level II Quasi-experimental studies · Systematic review of a combination of RCTs and quasi-experimental studies, or quasi-experimental studies only, with or without meta-analysis</p>	Two quasi-experimental study designs.	Al Dameery B Cullen et al C	Both studies found that telephonic interventions have the potential to significantly improve oral medication adherence in patients with schizophrenia and reduce the risk of relapse or repeated hospitalization.
<p>Level III Non-experimental study · Systematic review of a combination of RCTs, quasi-experimental, and non-experimental studies, or non-experimental studies only, with or without meta-analysis · Qualitative study or systematic review of qualitative studies with or without meta-synthesis</p>			
<p>Level IV Opinion of respected authorities and/or reports of nationally recognized expert committees/consensus panels based on scientific evidence</p>			

<p>Level V Evidence obtained from literature reviews, quality improvement, program evaluation, financial evaluation, or case reports · Opinion of nationally recognized expert(s) based on experiential evidence</p>			
<p>Overall Quality Rating w/rational and Recommendation: The overall rating of the evidence is good and demonstrates that telephonic reminders improve adherence to antipsychotic medications. The findings from all the studies reviewed are consistent in that telephone reminders, including phone calls and/or SMS, improve medication adherence. Based on this review/synthesis, there is evidence that telephonic reminders improve medication adherence in persons with serious mental illness (SMI).</p>			
<p>Recommendations Based on Evidence Synthesis there is compelling evidence and consistent results that telephonic reminders improve medication adherence in patients struggling with serious mental illness.</p>			

Table 3

Summary of CAI Findings

Collaborative Practice			Evidence-informed Practice			Respect for Persons			Practice Boundaries			Evaluation		
Item #	SA, A,	Score	Item #	SA, A,	Score	Item #	SA, A,	Score	Item #	SA, A,	Score	Item #	SA, A,	Score
3	A	4	4	A	3	2	SA	4	1	A	3	9	D	2
6	SA	4	7	A	3	5	SA	4	13	A	3	12	A	3
10	A	3	11	A	3	8	A	3	16	D	2	18	SA	4
14	SA	4	17	A	3	15	SA	4	21	A	3	24	D	3
19	SA	3	23	A	3	20	A	3	25	D	2			
22	SA	4	27	A	3	26	A	3	30	D	2			
28	SA	4	29	A	3	36	A	3						
31	A	3	32	SA	4									
33	A	4	34	A	4									
			35	D	2									
			37	A	3									
Total Score:		33	Total Score:		33	Total Score:		24	Total Score:		15	Total Score:		12
# Of Items:		9	# Of Items:		11	# Of Items:		7	# Of Items:		6	# Of Items:		4
Mean:		3.7	Mean:		3.0	Mean:		3.4	Mean:		2.8	Mean:		3.0
Total Mean for all 37 Items = 3.1														

Note. From McCormack et al., (2009).

Table 4

Element of Culture

Statement Numbers	1	3	7	9	12	15	16	18	21	23	24	28	31	33	34	36	Total Scores X 1.5625
Scores	3	4	3	2	3	4	2	4	3	3	3	4	3	3	4	3	79.68% =80%

Table 5

Elements of Leadership

Statement Numbers	2	6	10	17	22	27	29	Total Scores X 3.57
Scores	4	4	3	3	4	3	3	85.68% =86%

Table 6

Element of Evaluation

Statement Numbers	4	5	8	11	13	14	19	20	25	26	30	33	35	37	Total Scores X 76.54% =77%
Scores	3	4	3	3	3	4	4	3	3	3	2	3	2	3	

Total % Score: $(80 + 86 + 77)/3 = 81\%$

Note. From McCormack et al., (2009).

Figure 1

Fishbone Diagram

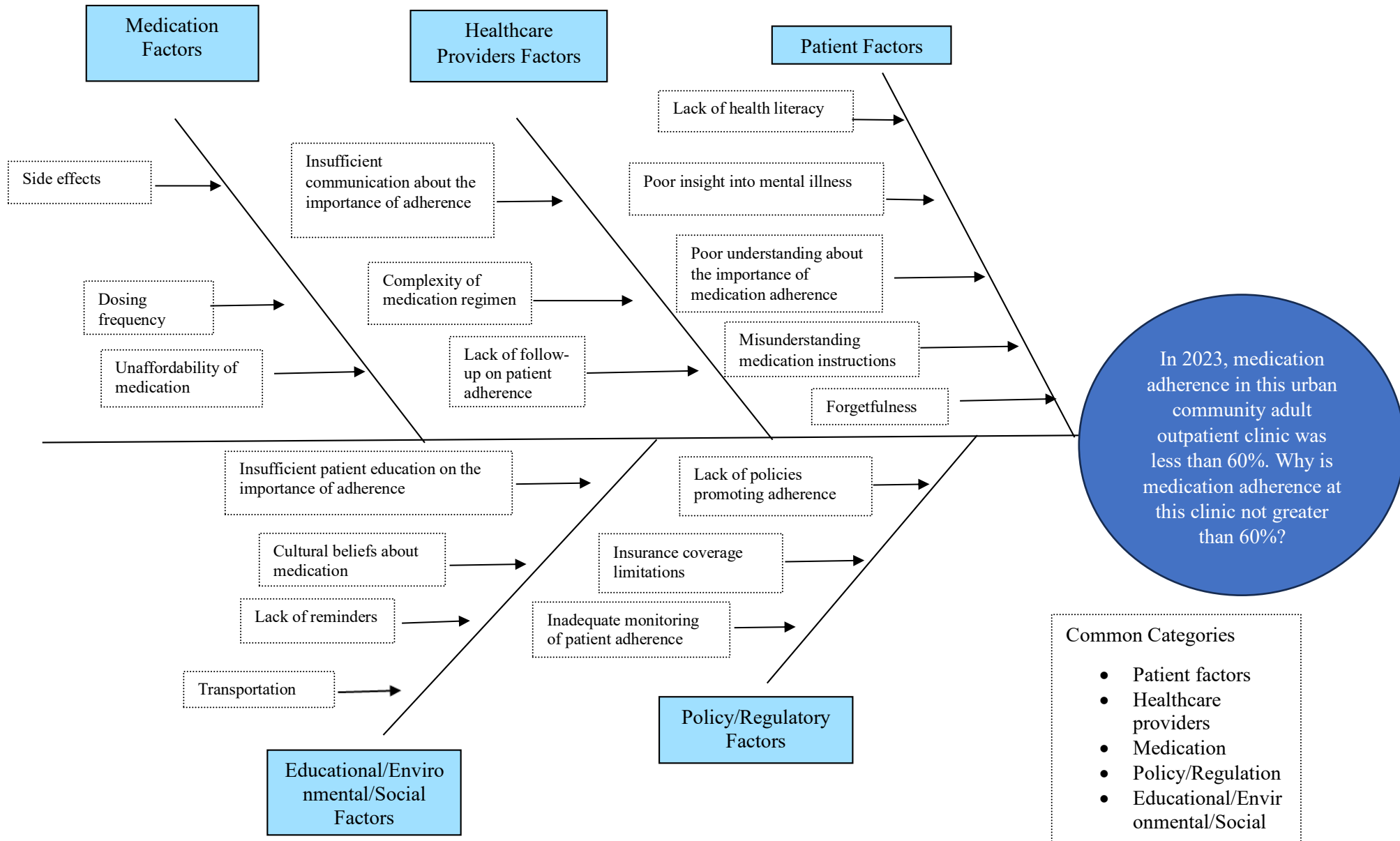
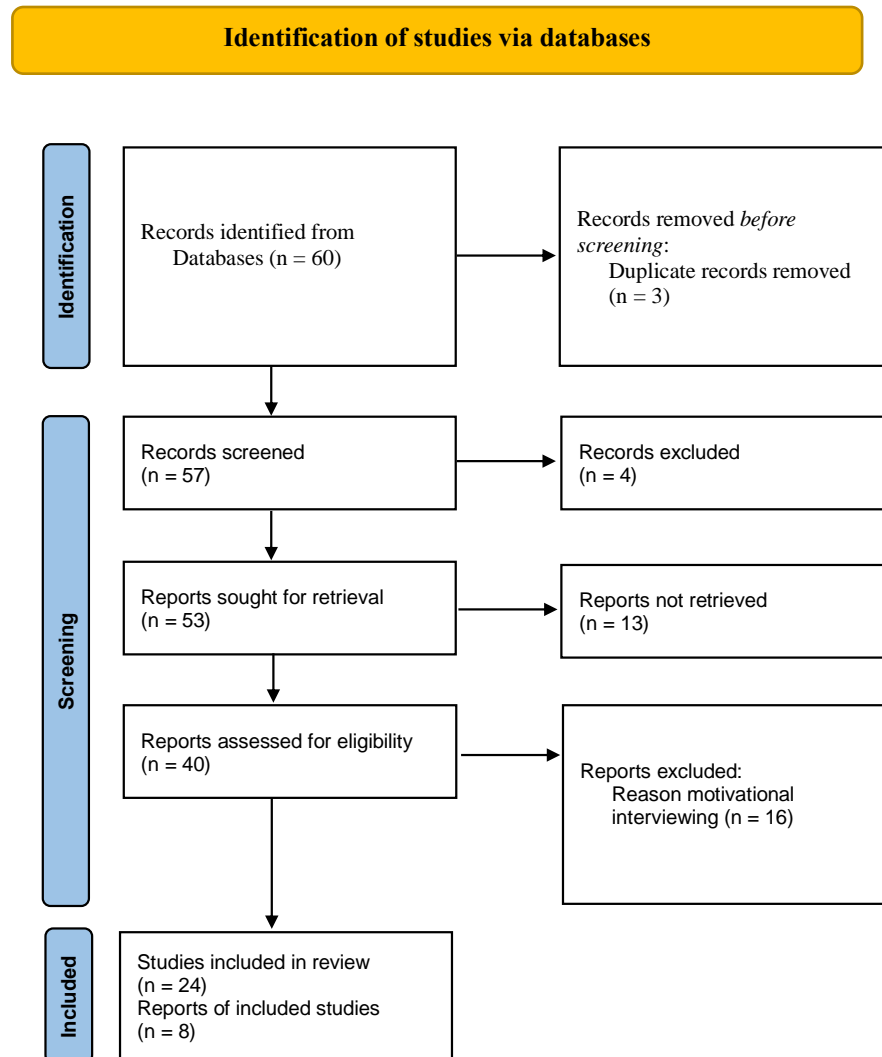


Figure 2

PRISMA Search Flow Diagram



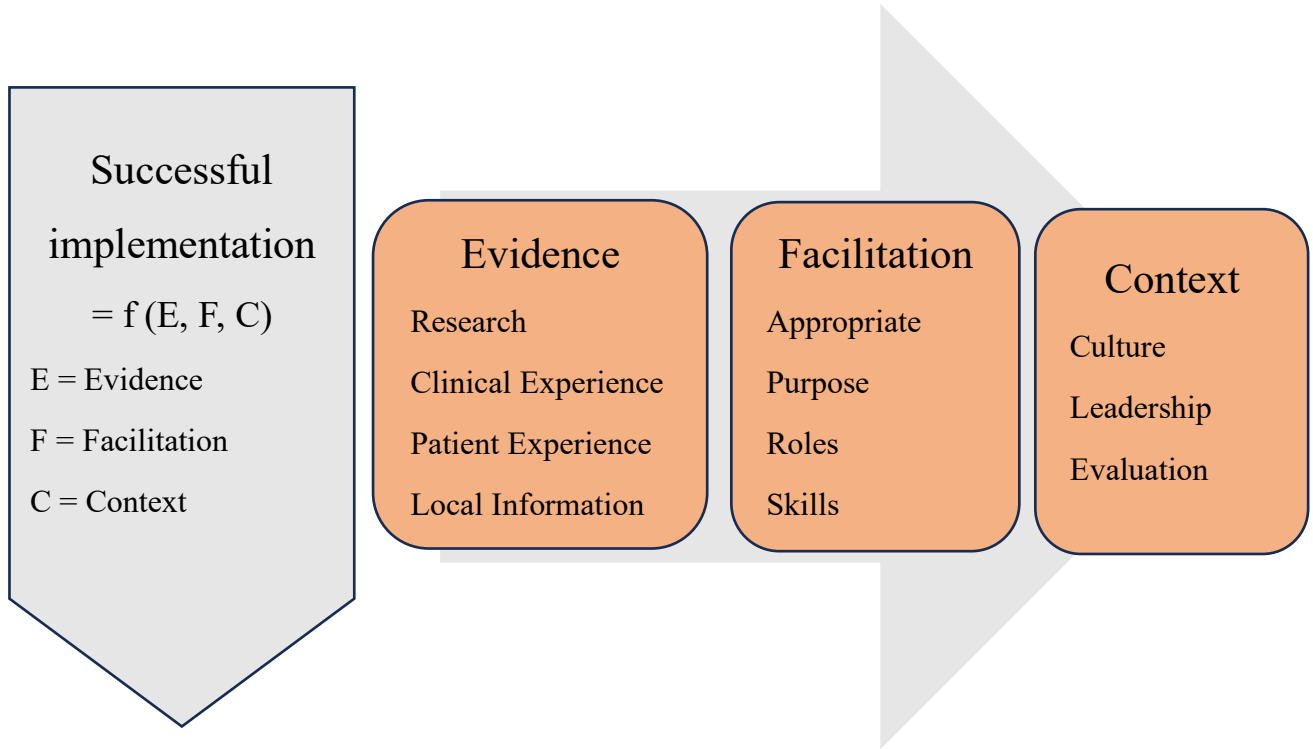
From: Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ* 2021;372:n71. doi: 10.1136/bmj.n71.

For more information, visit: <http://www.prisma-statement.org/>

Figure 3

Framework

Promoting Action on Research Implementation in Health Services (PARiHS)



Note. Adapted from Kitson, et al. 1998, Enabling the Implementation of Evidence Based Practice: A conceptual Framework.

Figure 4

Current Process for Medication Adherence

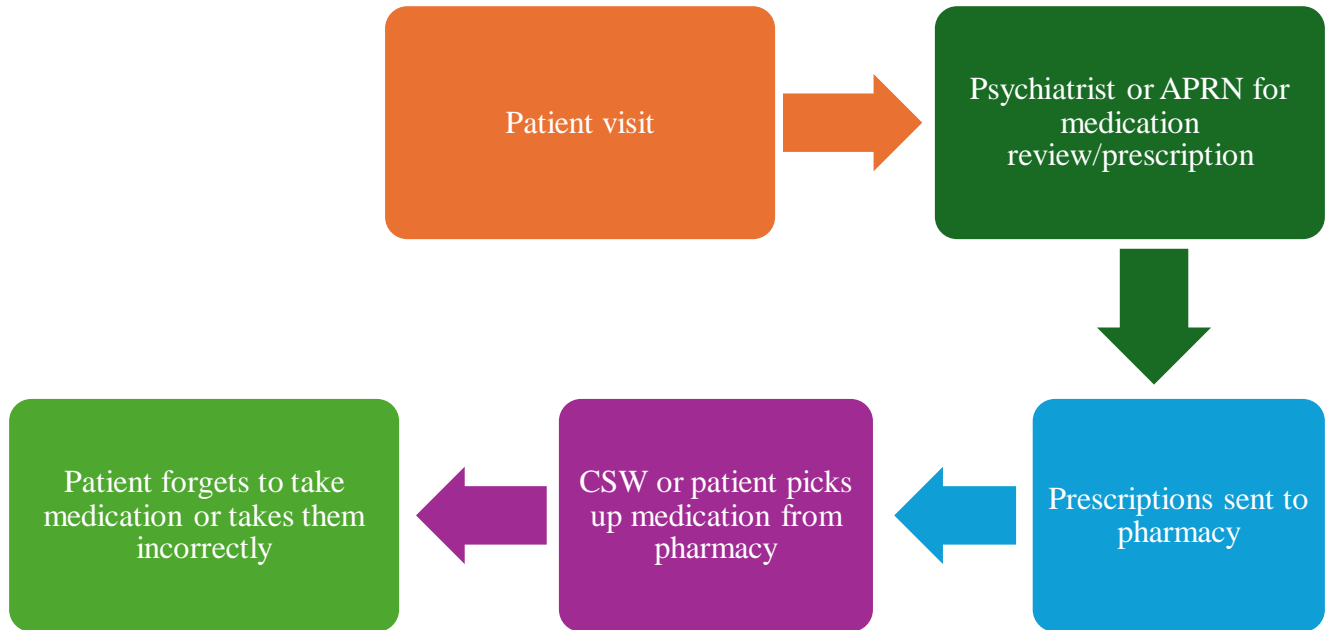


Figure 5

Proposed Process for Medication Adherence

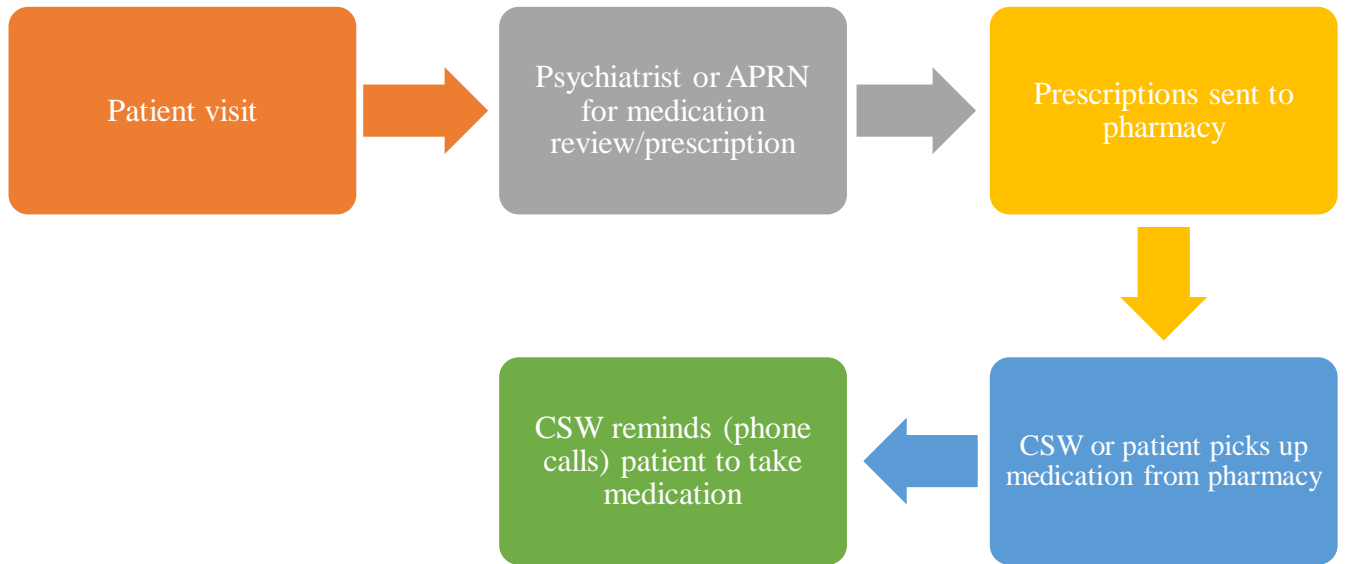


Figure 6

Pie chart of Telephone calls

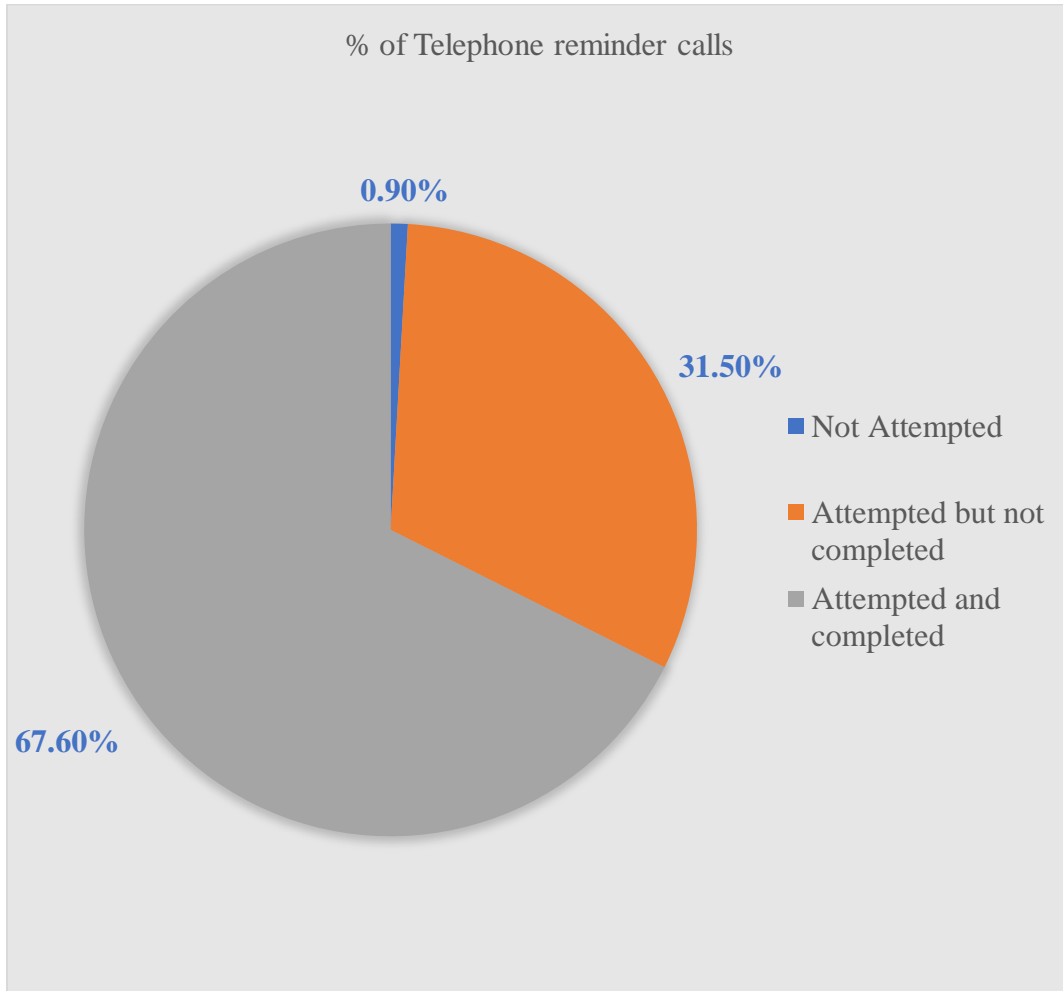
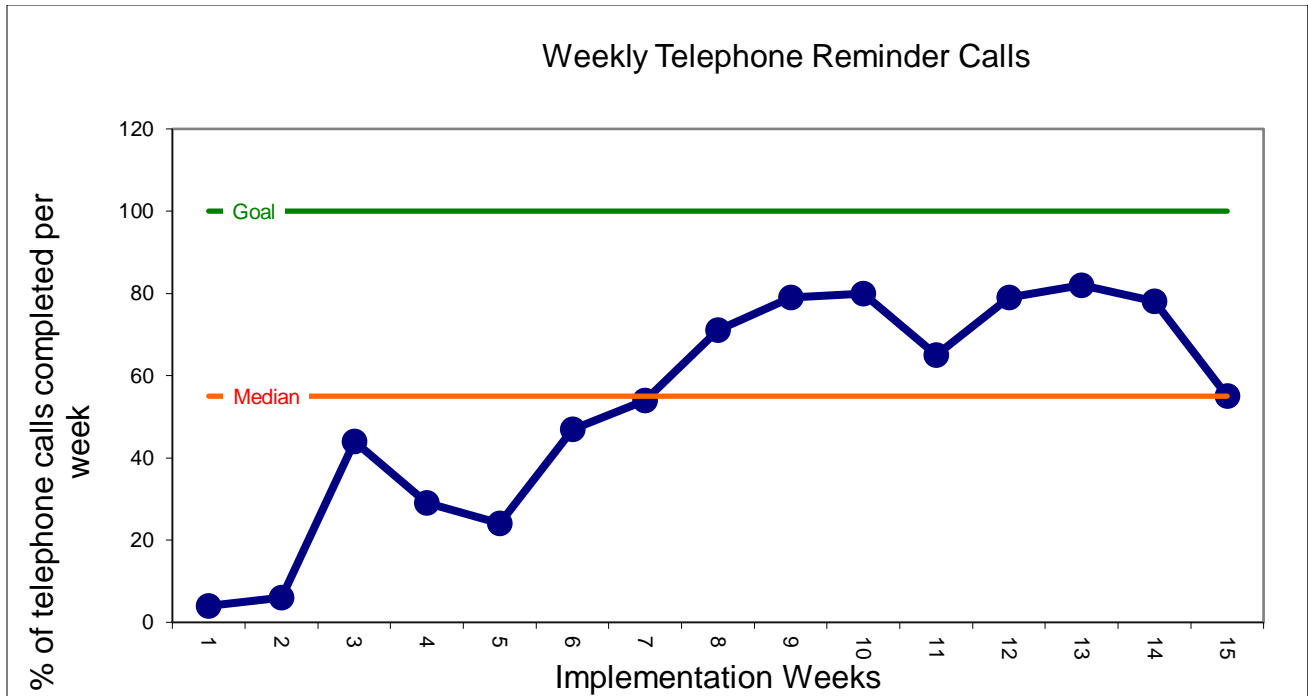


Figure 7

Run Chart of weekly telephone reminder calls



Appendix A

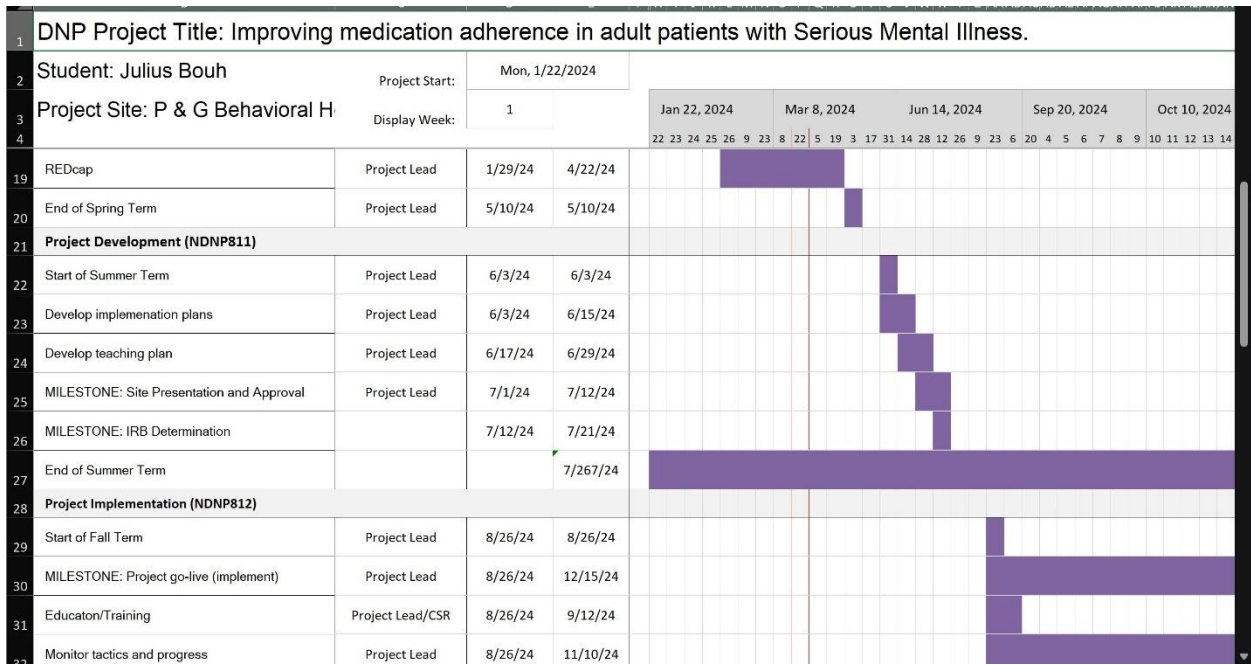
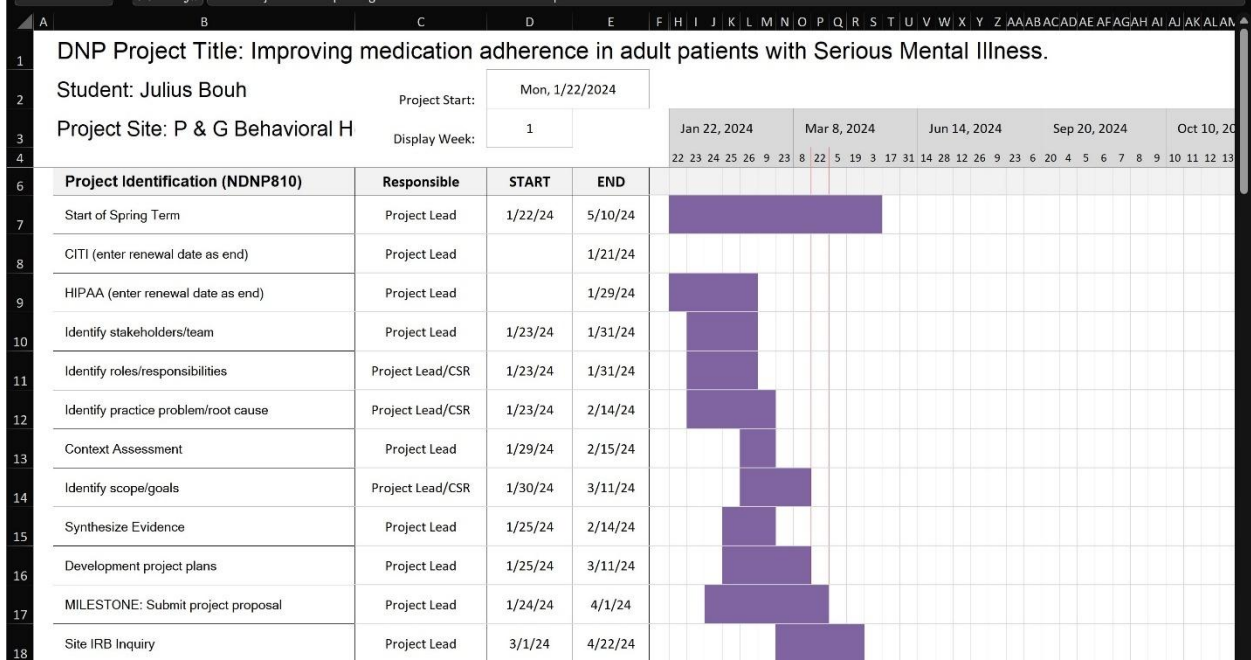
Citation Manager

The screenshot displays the Zotero Citation Manager interface. The main window shows a list of citations with columns for 'Title' and 'Creator'. The left sidebar contains a tree view of the library structure, including 'My Library', 'My Publications', 'Duplicate Items', 'Unfiled Items', and 'Trash'. A search bar is visible at the top right of the main window. The list of citations includes various studies on medication adherence in different populations and settings.

Title	Creator
> Adherence to medication in the community: Audit cycle of interventions to improve the assessment of adherence	Farooq and Choudry
> Assessment of pharmacy-driven transitional interventions in hospitalized patients with psychiatric disorders.	Tillman III et al.
> Association of Social Determinants of Health With Adherence to Second-generation Antipsychotics for People With Bipolar Disorder...	Li et al.
> Clinical outcomes from the texting for relapse prevention (T4RP) in schizophrenia and schizoaffective disorder study	Cullen et al.
> Determinants of medication adherence in older people with dementia from the caregivers' perspective.	El-Saifi et al.
> Effect of a Telephone Intervention Upon Self-Reported Medication Adherence and Self-Efficacy in Outpatients With Schizophrenia S...	Beebe et al.
> Effectiveness of interventions to improve medication adherence in adults with depressive disorders: a meta-analysis	González De León et al.
> Effects of psychotropic polypharmacy intervention.	
> Efficacy of a Smartphone App in Enhancing Medication Adherence and Accuracy in Individuals With Schizophrenia During the COVI...	Chen et al.
> Enhancing Medication Adherence Among Patients With Schizophrenia and Schizoaffective Disorder: Mobile App Intervention Study	Al Dameery et al.
> Family environment and depressive episode are associated with relapse after first-episode psychosis.	da Silva et al.
> Impact of a specialist mental health pharmacy team on medicines optimisation in primary care for patients on a severe mental illness...	Raynsford et al.
> Improving Medication Adherence With Telemedicine for Adults With Severe Mental Illness	Schulze et al.
> Improving Medication Adherence With Telemedicine for Adults With Severe Mental Illness.	Schulze et al.
> Internalized Stigma in People With Mood Disorders: Predictors and Associated Factors.	Alvarenga Silva Gomes et al.
> Interventions to improve medication adherence in mental health: the update of a systematic review of cost-effectiveness.	García-Pérez et al.
> Lay health supporters aided by mobile text messaging to improve adherence, symptoms, and functioning among people with schizo...	Xu et al.
> Medication Adherence in Pediatric Patients with Bipolar Disorder: A Systematic Review.	Sanchez et al.
> Medication nonadherence and its associated factors in psychiatric patients in India: A systematic review and meta-analysis	Ramamurthy et al.
> Medication nonadherence and its associated factors in psychiatric patients in India: A systematic review and meta-analysis.	Ramamurthy et al.
> Motivational Interviewing–Based Compliance/Adherence Therapy Interventions to Improve Psychiatric Symptoms of People With Se...	Wong-Anuchit et al.
> Promoting Medication Adherence Among Psychiatric Patients With a History of Nonadherence: A Clinical Practice Improvement Pro...	XIA et al.
> Psychosocial interventions in patients with dual diagnosis.	Subodh B. N. et al.
> Psychotropic Medication Adherence in Children and Adolescents.	Verma and Agrawal
> Psychotropic medication non-adherence and its associated factors among patients with major psychiatric disorders: a systematic rev...	Sernahegn et al.
> Randomised controlled trial of a treatment adherence programme for prisoners with mental health problems in Spain.	Muela et al.
> Randomized controlled trial of the effects of nursing care based on a telephone intervention for medication adherence in schizophr...	Uslu and Buldukoglu
> Reprint of: The role of the pharmacist in mental health: An investigation of the impact of pharmacist-led interventions on psychotro...	Bingham et al.
> Short Text Messages to Encourage Adherence to Medication and Follow-up for People With Psychosis (Mobile.Net): Randomized Co...	Valimäki et al.
> Systematic Literature Review of Text Messaging Interventions to Promote Medication Adherence Among People With Serious Menta...	Simon et al.
> Systematic Literature Review of Text Messaging Interventions to Promote Medication Adherence Among People With Serious Menta...	Simon et al.
> Telemedicine interventions for medication adherence in mental illness: A systematic review	Basit et al.
> The effect of non-adherence to antipsychotic treatment on rehospitalization in patients with psychotic disorders	Abdullah-Koolmees et al.
> The effectiveness and acceptability of mobile telephone adherence support for management of depression in the Mental Health in ...	Adewuya et al.
> The effectiveness of daily SMS reminders in pharmaceutical care of older adults on improving patients' adherence to antihypertensiv...	Haramiova et al.
> The impact of anti-seizure medications on psychiatric disorders among children with epilepsy: Both a challenge and an opportunity?	Datta

Appendix B

Gantt Chart



DNP Project Title: Improving medication adherence in adult patients with Serious Mental Illness.																																																											
Student: Julius Bouh		Project Start: Mon, 1/22/2024																																																									
Project Site: P & G Behavioral H		Display Week: 1		Jan 22, 2024				Mar 8, 2024				Jun 14, 2024				Sep 20, 2024				Oct 10, 2024				Oct 17, 2024				Oct 24, 2024				Oct 31, 2024																											
				22	23	24	25	26	9	23	8	22	5	19	3	17	31	14	28	12	26	9	23	6	20	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6
33	Communicate with stakeholders	Project Lead	8/26/24	12/20/24																																																							
34	Data Collection	Project Lead	8/26/24	12/20/24																																																							
35	Dissemination Plan	Project Lead	8/26/24	12/20/24																																																							
36	MILESTONE: Manuscript	Project Lead	8/26/24	12/20/24																																																							
37	End of Fall Term			12/20/24																																																							
Project Evaluation and Dissemination (NDNP813)																																																											
38				1/27/25																																																							
39	Start of Spring Term			1/27/25																																																							
40	Analyze, synthesize & evaluate results	Project Lead	1/27/25	2/7/25																																																							
41	Sustainability Plan	Project Lead	2/27/25	3/10/25																																																							
42	MILESTONE: Develop Poster	Project Lead	2/27/25	3/10/25																																																							
43	MILESTONE: Site Presentation	Project Lead	3/17/25	3/17/25																																																							
44	MILESTONE: External Dissemination	Project Lead	4/20/25	4/23/25																																																							
45	MILESTONE: Final Manuscript	Project Lead	1/27/25	5/7/25																																																							

DNP Project Title: Improving medication adherence in adult patients with Serious Mental Illness.																																																											
Student: Julius Bouh		Project Start: Mon, 1/22/2024																																																									
Project Site: P & G Behavioral H		Display Week: 1		Jan 22, 2024				Mar 8, 2024				Jun 14, 2024				Sep 20, 2024				Oct 10, 2024				Oct 17, 2024				Oct 24, 2024				Oct 31, 2024																											
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39	Start of Spring Term			1/27/25																																																							
40	Analyze, synthesize & evaluate results	Project Lead	1/27/25	2/7/25																																																							
41	Sustainability Plan	Project Lead	2/27/25	3/10/25																																																							
42	MILESTONE: Develop Poster	Project Lead	2/27/25	3/10/25																																																							
43	MILESTONE: Site Presentation	Project Lead	3/17/25	3/17/25																																																							
44	MILESTONE: External Dissemination	Project Lead	4/20/25	4/23/25																																																							
45	MILESTONE: Final Manuscript	Project Lead	1/27/25	5/7/25																																																							
46	MILESTONE: UMSON Poster Day	Project Lead	5/8/25	5/10/25																																																							
47	Project Closure w/ site	Project Lead	5/10/25	5/10/25																																																							
48	End of Spring Term	Project Lead	5/21/25	5/21/25																																																							
49																																																											
50	Insert new rows ABOVE this one																																																										
51																																																											

Appendix C

Proposals and Goals

Goals	Measure	Analysis
<p>Structure: By September 2, 2024, 100% of staff will receive education and training on the use of a standardized telephone script.</p>	<p>Attestation of Completion of Training</p>	<p>Numerator: Number of staff who complete education and training</p> <p>Denominator: Number of staff eligible to complete education and training.</p>
<p>Process: By December 13, 2024, 100% of eligible patients will be sent a telephonic reminder.</p>	<p>Telephonic Reminder Survey</p>	<p>Numerator: Number of patients who were sent telephonic reminders</p> <p>Denominator: Number of patients eligible to receive telephonic reminders.</p>

Appendix D

Attestation of Completion of Training

Attestation of Training

Page 1

Please complete the survey below.

Thank you!

-
- 1) Date _____

 - 2) 1. By clicking "yes", I attest that I have attended this training and understand the information provided in the use and administration of telephone reminders. Yes No

Appendix E

Telephonic Reminder Survey

Telephone Reminder Page 1

Please complete the survey below.

Thank you!

Date/Time _____

Was reminder phone call attempted? Yes
 No

What was the reason for not attempting a reminder phone call?

Was reminder phone call completed? Yes
 No

What was the reason for not completing a reminder call?

07/12/2024 7:53pm projectredcap.org 