

How to increase medication adherence: What works?

Megan J. Ehret, PharmD, MS, BCPP¹

Matthew Wang, BS PharmD Candidate²

¹Associate Professor

University of Connecticut

²University of Connecticut

ABSTRACT

Many studies have aimed to identify risk factors contributing to medication nonadherence with the goal of developing interventions to improve adherence rates. Several different intervention strategies have been studied. Psychoeducation, cognitive-behavioral therapy, and motivational interviewing have all positively influenced medication adherence and combinations of these approaches may bring about better results than one approach alone. In addition, pharmacists' intervention through answering patients' questions, performing follow up phone calls, offering additional education, and changing of medications or doses, may help the patient and ultimately lead to an increase in medication adherence and disease state improvement.

KEYWORDS

Medication adherence, literature review, patient education, pharmacist

Drugs don't work in patients who don't take them.

- C. Everett Koop, M.D.

There are varying estimates of medication adherence within the psychiatric population based on disease states (Major depressive disorder: 28-52%, bipolar disorder 20-50%, schizophrenia: 20-72% and anxiety disorders 57%).¹⁻⁵ Many studies have aimed to identify risk factors for those nonadherent to their medications in hopes of developing interventions to improve adherence rates. Those factors which have consistently been demonstrated to have a negative impact on medication adherence rates in those with psychiatric diagnoses include the following: patient related factors (i.e. young, unmarried, male, lower education level, and comorbid substance dependence), psychological factors (i.e. poor insight, denial of illness, negative attitude towards medications, and lack of conviction that medication will prevent relapse), medication-related factors (i.e. side effects, dosing schedules, and efficacy), and social/environmental factors (i.e. quality of therapeutic alliance, stability of living arrangement, supervision of medication administration, family support, discharge planning, and communication).⁶

Several different intervention strategies have been studied and those with positive results will be presented here.

1. Psychoeducation is the mainstay of many interventions which have been used to improve medication adherence. These strategies involve individual or group counseling sessions with or

without the use of written or audiovisual materials on psychiatric diagnoses, medications, and potential side effects. Studies have demonstrated that when psychoeducation is used as the only method to improve adherence, it does not appear to be effective in those with schizophrenia.⁷⁻¹⁰ When techniques used to promote changes in behavior, skills, and/or attitudes are used, an increase in adherence has been seen in those with bipolar disorder.¹¹

2. Cognitive-behavioral therapy helps the patient link medication adherence to symptom reduction and personal health. It involves behavioral approaches including conditioning, rewarding, cues, reminders, and skill training. It has demonstrated benefits in improving adherence in those with bipolar disorder and to increase insight in patients with schizophrenia.^{2,3,12-14}
3. Motivational Interviewing is defined as a "Client-centered directive method for enhancing intrinsic motivation to change by exploring and resolving ambivalence".¹⁵ The concept of change within motivational interviewing is viewed as a process involving multiple stages: pre-contemplation, contemplation, preparation, action, and maintenance. The basic steps of motivational interviewing involve expressing empathy for your patients, supporting self-efficacy in an unwavering manner, highlighting discrepancies between the patient's current health behaviors and core values, and rolling with resistance (the clinician doesn't

challenge the patient's resistance to take medications, rather explores the resistance in order to better understand the patient's perspective).¹⁶

Using a motivational interviewing approach, patients are not confronted about the need for change, but rather are prompted to discuss the pros and cons of making a change. The interview sessions use four major technical approaches during the intervention including: asking open ended questions, affirming the patient's self-efficacy, reflecting on a patient's thoughts via active listening, and summarizing a patient's narratives to help resolve ambivalence and promoting change.¹⁶

Motivational interviewing in combination with a cognitive approach has efficacy in improving adherence in dual diagnosis patients (depression with cocaine dependence) and in those with psychosis.¹⁷⁻²⁰

Based on the above factors, several methods for improving adherence have been proven to be effective. One of the most effective methods for increasing adherence is to establish a therapeutic alliance with the patient.²¹ A relatively strong alliance can lead to improved patient adherence to psychotropic medications.²² The strength of the therapeutic alliance is a dominant factor in improving adherence. During the opening phase of therapy, it may be the best predictor of outcome.²² Clinicians should help patients identify their treatment goals. Partnering with the patient to obtain these goals can help to improve adherence. A positive, empathetic disposition is needed, but also a collaborative framework and partnership where patients see themselves as active, respected participants in the relationship. An additional method for building the therapeutic alliance includes being innovative and finding some common ground with the patient. Determine if there are any shared common interests, which could be discussed to build the relationship. By facilitating the therapeutic alliance, the clinician will be able to work with the patient to identify specific relapse triggers and help the patient anticipate consequences of their non-adherence to medications. Clinicians should be aware that it might take up to six months to develop this relationship.²²

In addition to developing a therapeutic relationship, clinicians should also devote time during their treatment sessions to specifically address medication adherence. The clinician should recognize risk factors for non-adherence and address them during the treatment session. By identifying specific factors for non-adherence, the clinician will be able to enact a proper treatment plan for the patient. Example steps that may go into an

individualized treatment plan targeting adherence may include: monitoring symptoms and side effects when working with patients who are on antipsychotics due to extrapyramidal symptoms and metabolic abnormalities that may occur, providing access to information such as answering medication-related questions or directing uninsured and financially constrained patients towards prescription saving programs or to receive generic substitutions.

During the treatment session, the clinician should assess the patient's motivation to adopt healthy behaviors related to adherence to recommended treatments. Also, they should gauge the patient's motivation to adopt a particular treatment recommendation and the likelihood of being adherent to medication. The clinician should encourage the patient to discuss the pros and cons of taking their medications as prescribed which will not only point out key barriers to adherence, but also their personal attitudes towards their own condition.

A recent systematic review described the five areas of research that pharmacists have explored in improving medication adherence in patients with depression. Five types of adherence methods were tested: 1. Educating and counseling patients on the importance of adherence, side effects, and regimen reviews 2. Monitoring medications and following up on drug reactions 3. Prescribing medications and dose changes to simplify medication regimens under a given protocol 4. Following up with a phone call and providing all information and response to a patient's questions 5. Emphasizing the importance of medication adherence through a take-home video emphasizing importance of medication adherence. This review demonstrated that the phone call was an effective method for improving adherence, however the effectiveness was limited based on the extent that it can be incorporated into clinical practice. Additional barriers to communication include patients and providers that do not speak the same language or that may have different levels of understanding. Psychoeducation was also found to be an effective means of enhancing treatment adherence. The evidence provided through this review demonstrates the role a pharmacist can play in improving medication adherence through different types of interventions.^{23,24}

Medication adherence is a challenging problem across all disease states, but can be particularly hard in those with mental illness. Pharmacists are uniquely positioned to engage the patient, if in the community setting at every fill of their medication or if in the institutional setting at the time of initiation of a new medication or upon change

in medication regimen. The therapeutic alliance between a patient and a pharmacist is essential for discussions surrounding side effects, cost, and expectations of the medications. Pharmacists are in a unique position to be readily available to answer the questions of a patient. The addition of other interventions, including follow up phone calls, offering additional education, and changing of medications or doses, etc. can help the patient and ultimately lead to an increase in medication adherence and disease state improvement.

REFERENCES

- Vergouwen ACM, Bakker A, Katon WJ, Verheij TJ, Koerselman F. Improving adherence to antidepressants: a systematic review of interventions. *J Clin Psychiatry*. 2003;64(12):1415-20. PubMed PMID: [14728101](#).
- Scott J, Pope M. Nonadherence with mood stabilizers: prevalence and predictors. *J Clin Psychiatry*. 2002;63(5):384-90. PubMed PMID: [12019661](#).
- Cochran SD. Preventing medical noncompliance in the outpatient treatment of bipolar affective disorders. *J Consult Clin Psychol*. 1984;52(5):873-8. PubMed PMID: [6501672](#).
- Lacro JP, Dunn LB, Dolder CR, Leckband SG, Jeste DV. Prevalence of and risk factors for medication nonadherence in patients with schizophrenia: a comprehensive review of recent literature. *J Clin Psychiatry*. 2002;63(10):892-909. PubMed PMID: [12416599](#).
- Stein MB, Cantrell CR, Sokol MC, Eaddy MT, Shah MB. Antidepressant adherence and medical resource use among managed care patients with anxiety disorders. *Psychiatric Services*. 2006;57(5):673-80. DOI: [10.1176/appi.ps.57.5.673](#). PubMed PMID: [16675762](#).
- Julius RJ, Novitsky MA, Dubin WR. Medication adherence: a review of the literature and implications for clinical practice. *J Psychiatr Pract*. 2009;15(1):34-44. DOI: [10.1097/01.pra.0000344917.43780.77](#). PubMed PMID: [19182563](#).
- Byerly MJ, Thompson A, Carmody T, Bugno R, Erwin T, Kashner M, et al. Validity of electronically monitored medication adherence and conventional adherence measures in schizophrenia. *Psychiatr Serv*. 2007;58(6):844-7. DOI: [10.1176/appi.ps.58.6.844](#). PubMed PMID: [17535946](#).
- Zygmunt A, Olfson M, Boyer CA, Mechanic D. Interventions to improve medication adherence in schizophrenia. *Am J Psychiatry*. 2002;159(10):1653-64. PubMed PMID: [12359668](#).
- Lincoln TM, Wilhelm K, Nestoriuc Y. Effectiveness of psychoeducation for relapse, symptoms, knowledge, adherence and functioning in psychotic disorders: a meta-analysis. *Schizophr Res*. 2007;96(1-3):232-45. DOI: [10.1016/j.schres.2007.07.022](#). PubMed PMID: [17826034](#).
- Dolder CR, Lacro JP, Leckband S, Jeste DV. Interventions to improve antipsychotic medication adherence: review of recent literature. *J Clin Psychopharmacol*. 2003;23(4):389-99. DOI: [10.1097/01.jcp.0000085413.08426.41](#). PubMed PMID: [12920416](#).
- Tacchi MJ, Scott J. Improving adherence in schizophrenia and bipolar disorders. Chichester, England: John Wiley & Sons; 2005.
- Lam DH, Hayward P, Watkins ER, Wright K, Sham P. Relapse prevention in patients with bipolar disorder: cognitive therapy outcome after 2 years. *Am J Psychiatry*. 2005;162(2):324-9. DOI: [10.1176/appi.ajp.162.2.324](#). PubMed PMID: [15677598](#).
- Lam DH, Watkins ER, Hayward P, Bright J, Wright K, Kerr N, et al. A randomized controlled study of cognitive therapy for relapse prevention for bipolar affective disorder: outcome of the first year. *Arch Gen Psychiatry*. 2003;60(2):145-52. PubMed PMID: [12578431](#).
- Turkington D, Kingdon D, Turner T. Effectiveness of a brief cognitive-behavioural therapy intervention in the treatment of schizophrenia. *Br J Psychiatry*. 2002;180:523-7. PubMed PMID: [12042231](#).
- Rollnick S, Miller WR. What is motivational interviewing? *Behav Cogn Psychother* 1995;23(4):325-34. DOI: [http://dx.doi.org/10.1017/S135246580001643X](#).
- Chanut F, Brown TG, Donguier M. Motivational interviewing and clinical psychiatry. *Can J Psychiatry*. 2005;50(11):715-21. PubMed PMID: [16366007](#).
- Kemp R, Kirov G, Everitt B, Hayward P, David A. Randomised controlled trial of compliance therapy. 18-month follow-up. *Br J Psychiatry*. 1998;172:413-9. PubMed PMID: [9747403](#).
- Daley DC, Salloum IM, Zuckoff A, Kirisli L, Thase ME. Increasing treatment adherence among outpatients with depression and cocaine dependence: results of a pilot study. *Am J Psychiatry*. 1998;155(11):1611-3. PubMed PMID: [9812129](#).
- Swanson AJ, Pantalon MV, Cohen KR. Motivational interviewing and treatment adherence among psychiatric and dually diagnosed patients. *J Nerv Ment Dis*. 1999;187(10):630-5. PubMed PMID: [10535657](#).
- Kemp R, Hayward P, Applewhaite G, Everitt B, David A. Compliance therapy in psychotic patients: randomised controlled trial. *BMJ*. 1996;312(7027):345-9. PubMed PMID: [8611831](#).
- Sajatovic M, Davies M, Hroudá DR. Enhancement of treatment adherence among patients with bipolar disorder. *Psychiatr Serv*. 2004;55(3):264-9. PubMed PMID: [15001726](#).
- Frank AF, Gunderson JG. The role of the therapeutic alliance in the treatment of schizophrenia. Relationship to course and outcome. *Arch Gen Psychiatry*. 1990;47(3):228-36. PubMed PMID: [1968329](#).
- Velligan DI, Weiden PJ, Sajatovic M, Scott J, Carpenter D, Ross R, et al. Strategies for addressing adherence problems in patients with serious and persistent mental illness: recommendations from the expert consensus guidelines. *J Psychiatr Pract*. 2010;16(5):306-24. DOI: [10.1097/01.pra.0000388626.98662.a0](#). PubMed PMID: [20859108](#).
- Al-Jumah KA, Qureshi NA. Impact of pharmacist interventions on patients' adherence to antidepressants and patient-reported outcomes: a systematic review. *Patient Prefer Adherence*. 2012;6:87-100. DOI: [10.2147/PPA.S27436](#). PubMed PMID: [22346345](#).

How to cite this editor-reviewed article

Ehret MJ, Wang M. How to increase medication adherence: What works?. *Ment Health Clin* [Internet]. 2013;2(8):230-2. Available from: [http://dx.doi.org/10.9740/mhc.n132973](#)