Clinical Strategies to Promote Medication Adherence

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SAMHSA-HRSA Center for Integrated Health Solutions

WHO WE ARE

The SAMHSA-HRSA Center for Integrated Health Solutions (CIHS) is a national training and technical assistance center dedicated to the planning and development of integration of primary and behavioral health care for those with mental illness and/or substance use disorders and physical health conditions, whether seen in specialty mental health or primary care safety-net provider Settings across the country.

CIHS is jointly funded by the Substance Abuse and Mental Health Services Administration (SAMHSA) and the Health Resources Services Administration (HRSA), and is run by the National Council for Behavioral Health, the unifying voice of America's healthcare organizations that deliver mental health and addictions treatment and services.

Moderators



Brie Reimann, MPA, Director, CIHS

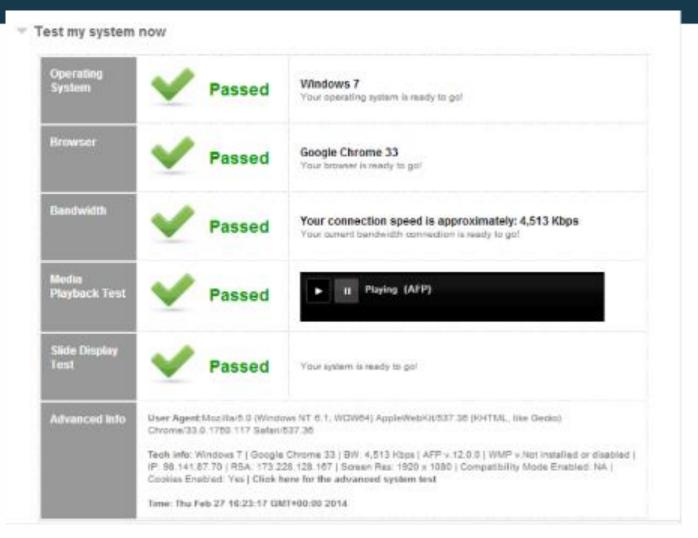


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Today's Speaker



Joe Parks, MD

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Objectives

- Understand the impact of medication non-adherence on the individual, family and community.
- Learn about several key recommendations to improved medication adherence.
- Hear about how one integrated care setting is successful in promoting medication adherence.
- Identify tools and resources to promote medication adherence.

Prevalence, Causes, and Impacts



Adherence to Medications

"Adherence to (or compliance with) a medication regimen is generally defined as the extent to which patients take medications as prescribed by their health care providers."

— Osterberg & Blaschke (2006)

Osterberg L, Blaschke T: Adherence to Medication. NEJM 2005; 353:487-497.



Adherence to medications

"No medication works inside a bottle. Period."

— C. Everett Koop, MD

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

— C. Everett Koop, MD

Table 1. Methods of Measuring Adherence.				
Test	Advantages	Disadvantages		
Direct methods				
Directly observed therapy	Most accurate	Patients can hide pills in the mouth and then discard them; impracti- cal for routine use		
Measurement of the level of medicine or metabolite in blood	Objective	Variations in metabolism and "white- coat adherence" can give a false impression of adherence; ex- pensive		
Measurement of the biologic marker in blood	Objective; in clinical trials, can also be used to measure placebo	Requires expensive quantitative as- says and collection of bodily fluids		
Indirect methods				
Patient questionnaires, patient self-reports	Simple; inexpensive; the most useful method in the clinical setting	Susceptible to error with increases in time between visits; results are easily distorted by the patient		
Pill counts	Objective, quantifiable, and easy to perform	Data easily altered by the patient (e.g., pill dumping)		
Rates of prescription refills	Objective; easy to obtain data	A prescription refill is not equivalent to ingestion of medication; re- quires a closed pharmacy system		
Assessment of the patient's clinical response	Simple; generally easy to perform	Factors other than medication adher- ence can affect clinical response		
Electronic medication monitors	Precise; results are easily quantified; tracks patterns of taking medication	Expensive; requires return visits and downloading data from medica- tion vials		
Measurement of physiologic markers (e.g., heart rate in patients taking beta-blockers)	Often easy to perform	Marker may be absent for other rea- sons (e.g., increased metabol- ism, poor absorption, lack of response)		
Patient diaries	Help to correct for poor recall	Easily altered by the patient		
When the patient is a child, question- naire for caregiver or teacher	Simple; objective	Susceptible to distortion		





Medication possession ratio

MPR =

Number of days that a drug is supplied



Number of days
the drug should
be supplied if
the prescription
was filled per
the drug regimen



Benchmarks

>80% is adherent 80-60% is partial adherence <60% is non-adherent



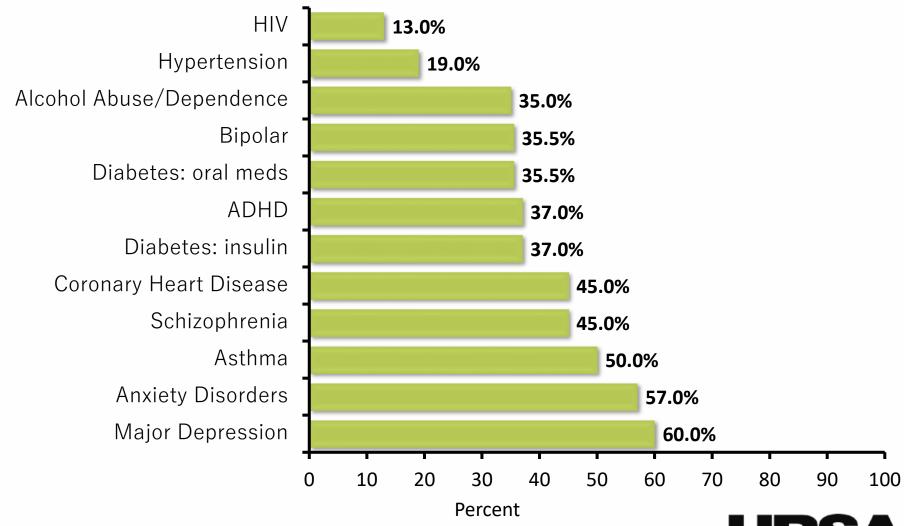
Rates of medication non-adherence

Coronary Heart Disease	40-50%
Hypertension	16-22%
Diabetes: oral meds	7-64%
Diabetes: insulin	37%
Asthma	25-75%
HIV	13%
Schizophrenia	30-60%
Major Depression	51-69%
Bipolar	21-50%
Anxiety Disorders	57%
ADHD	26-48%
Alcohol Abuse / Dependence	35%

Source: Buckley PF, Foster AE, Patel NC, Wermert A: Adherence to Mental Health Treatment. Oxford American Psychiatry Library. Oxford University Press, New York, 2009, pp 13-15.



Rates of medication non-adherence average



Source: Buckley PF, Foster AE, Patel NC, Wermert A: Adherence to Mental Health Treatment. Oxford American Psychiatry Library. Oxford University Press, New York, 2009, pp 13-15.

Antipsychotic non-adherence

Schizophrenia

- Self report: 20%
- More accurate estimate is 50%
- CATIE: ~40% of patients discontinued their antipsychotic medications on their own.²

Bipolar Disorder

- Less well studied but likely similar to schizophrenia
- Strongly associated with substance abuse

Adherence metrics: MPR

Table 1 Rates of adherence over 12 weeks according to various methods among 52 outpatients with schizophrenia^a

Assessment method	Total N	N	%
Self-report	50	43	86
Physician impression	50	33	66
Pill count	51	38	75
Electronic monitoring	52	33	63
Variability of antipsychotic plasma level ^b			
Across 72 hours at the end of the study	46	29	63
Across the study period	45	22	49

a Electronic monitoring data were missing for one participant who consistently left the top off the pill container. One individual received drug samples, so the pill count could not accurately be computed. Complications in blood collection resulted in missing data for seven patients at 12 weeks and eight patients across time. Data for self-report and physician report at 12 weeks were not collected for two individuals.

Source: Velligan DI, Wang M, Diamond P, et al: Relationships among subjective and objective measures of adherence to oral antipsychotic medications. Psychiatr Serv 2007;58:1187-1192.



^b If the difference between antipsychotic plasma levels was more than 30%, patients were considered to be nonadherent.

Consequences of non-adherence?



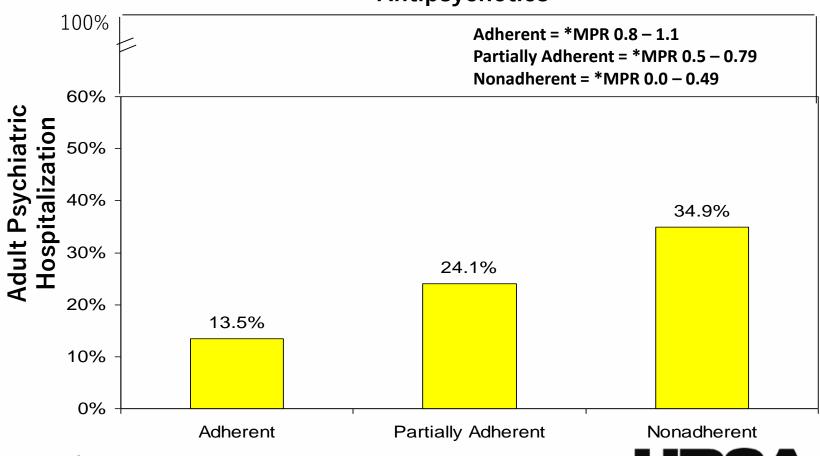
Not taking medication as prescribed:

- Causes 10% of total hospital admissions
- Causes 22% of nursing home admissions
- Has been associated with 125,000 deaths
- Results in \$100 billion/year in unnecessary hospital costs
- Costs the U.S. economy \$300 billion/year

Source: (N Engl. J Med 8/4/05, National Pharmaceutical Council, Archives of Internal Medicine, NCPIE, American Public Health Association)

Improvement in medication adherence associated with lower rates of hospitalization

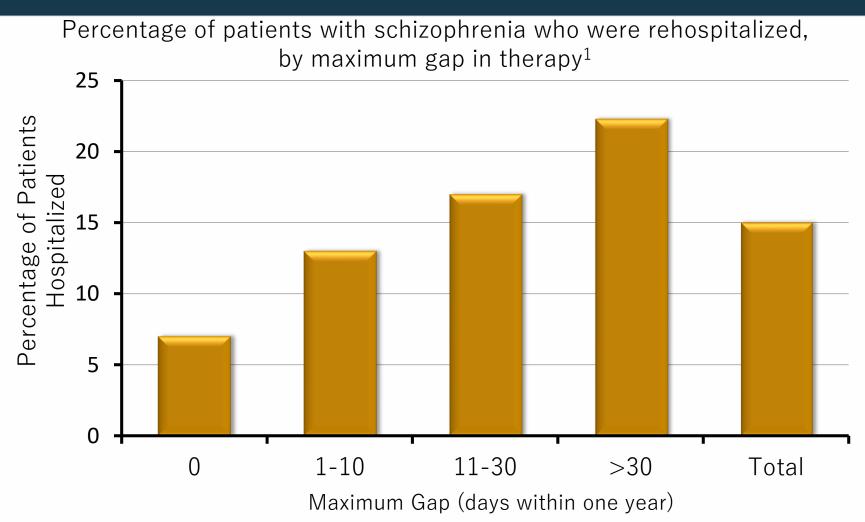
Annual Hospitalization Rates in Relation to Adherence to Antipsychotics



* MPR = Medication Possession Ratio Source: Gilmer TP, et al. *Am J Psychiatry*. 2004;161:692-696.



Partial compliance and risk of rehospitalization



1. All pairwise comparisons were significant at *P*<.005. Source: Weiden P et al. Psych Svc. 2004; 55:886-891.



Consequences of non-adherence

- Lack of progress toward goals/recovery
- Polypharmacy
- Unnecessarily high doses
- Illness progression and relapse
- ER usage and hospitalization

E.g.:

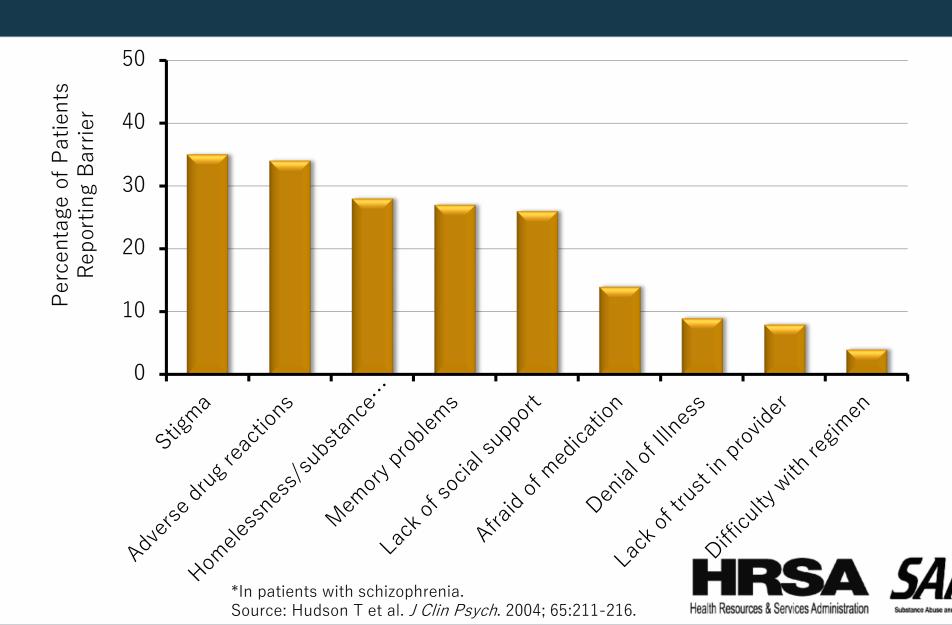
El-Mallakh, P., & Findlay, J. (2015). Strategies to improve medication adherence in patients with schizophrenia: the role of support services. *Neuropsychiatric Disease and Treatment*, 11, 1077–1090. http://doi.org/10.2147/NDT.S56107

Haddad, P. M., Brain, C., & Scott, J. (2014). Nonadherence with antipsychotic medication in schizophrenia: challenges and management strategies. *Patient Related Outcome Measures*, *5*, 43–62. http://doi.org/10.2147/PROM.S42735

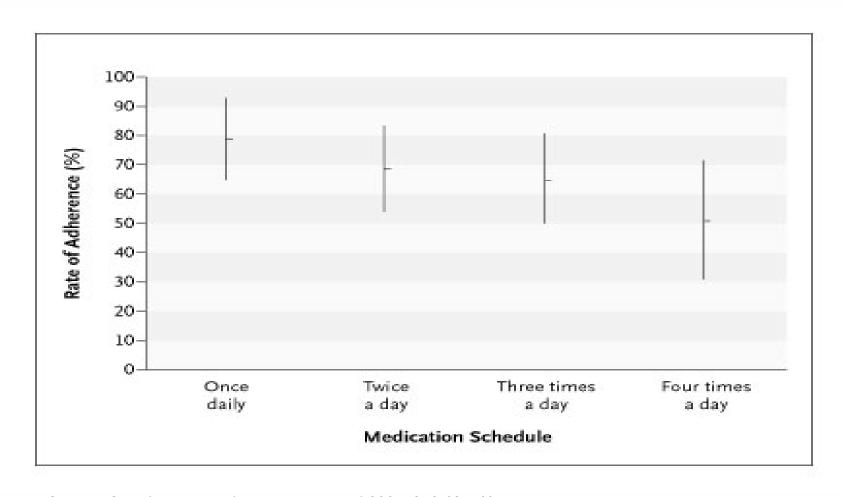




Patient-reported barriers to adherence with antipsychotic medications*



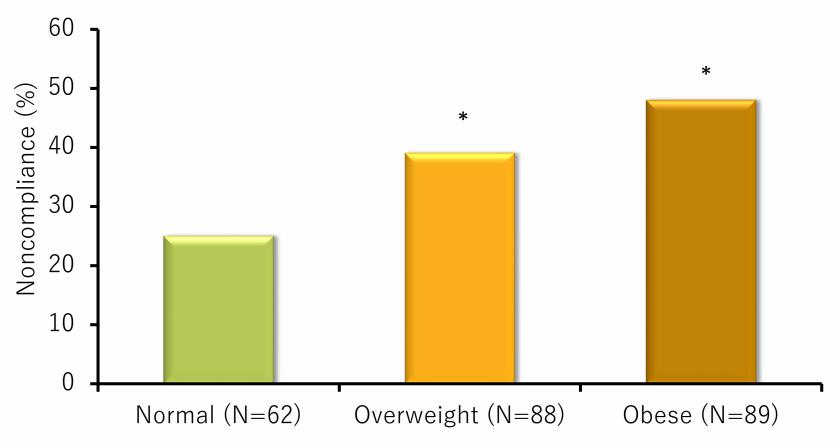
Adherence is related to dosing frequency



Source: Osterberg L. et al. *New Eng J Med.* 2005; 353:487-497.

Obesity as a risk factor





*P = 0.01 vs normal; Chi-square: P = 0.03. Test for linearity: .P = 0.01Schizophrenia population. Weiden PJ, et al. *Schizophr Res.* 2004;66:51-57.





Clinician factors—communication

 Clinician-Patient relationship may impart the most value in improving adherence.

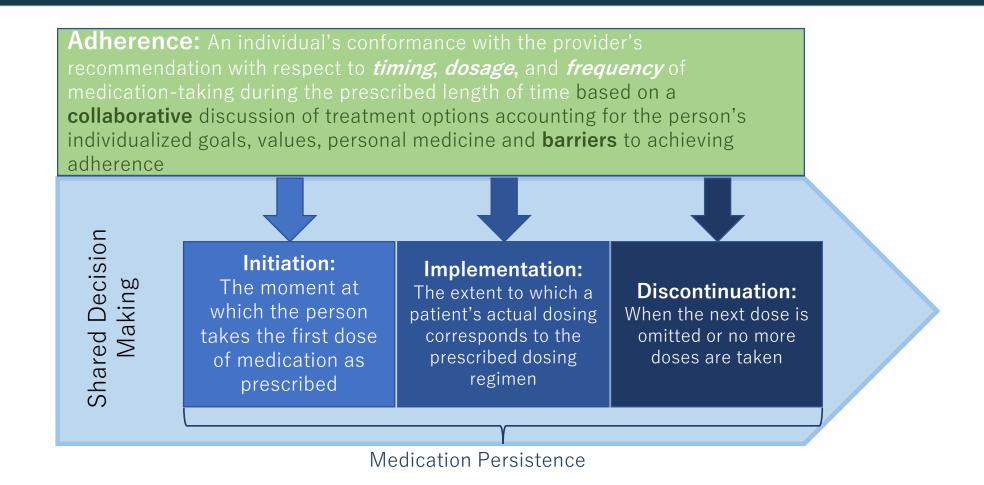
Source: Cruz M, et al. *Psych Svc.* 2002; 53:1253-1265. Dearing K, et al. *Psych Nurs.* 2004; 18:155-163.

Key elements are trust and caring.

- Promoting participation in decision making.
- Positive expectancy/hope.



A person-centered approach



The clash of perspectives

- "...my psychiatrist said I was getting better, but I experienced being disabled by the medication. He said I was more in control, but I experienced the medication controlling me. He said my symptoms were gone, but my experience was that my symptoms were no longer bothersome to others but some continued to torment me.
- ···I lost years of my life in this netherworld, and although I was treatment compliant and was maintained in the community, I was not recovering."

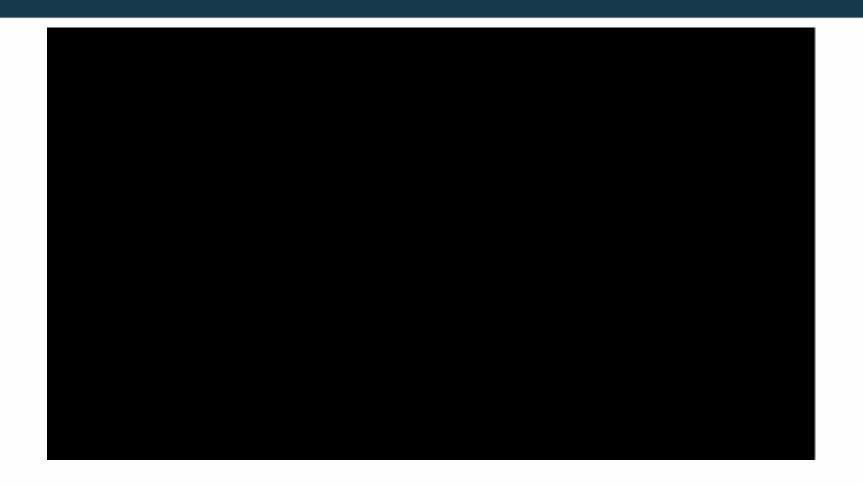
Pat Deegan

Source: Deegan, P. E. (2007). The lived experience of using psychiatric medication in the recovery process and a shared decision-making program to support it. *Psychiatric Rehabilitation Journal*, 31(1), 62-69. doi:10.2975/31.1.2007.62.69

Pat Deegan: The Clash of Perspectives

Me	Psychiatrist
I feel sedated	You are not psychotic
I'm still hearing distressing voices	You are not shouting at your voices anymore
I can't think clearly on this medicine.	You are not thought disordered
I feel like the meds are controlling me	You are more in control
I'm not myself when I'm on this medicine	You have returned to baseline

The Clash of Perspectives



Source: The Recovery Library https://www.recoverylibrary.com/content/57166a4c3aa174263a00057a



Person-centered care

Person-centered care (or treatment) is care or treatment that is based on the goals of the individual being supported, as opposed to the goals of the system or as defined by a doctor or other professional.





It is more important to know what manner of patient has the disease, than to know what manner of disease the patient has.

Sir William Osler



Shared decision making

Moving from medication 'compliance' *Patients' passive following of provider orders*

Making collaborative treatment decisions jointly based on client lived experience and choice

Principles of shared decision making

- 1. The goal of using psychiatric medication is recovery. Drug "maintenance" in the community is too low an outcome standard to strive for.
- 2. Psychiatric medication must serve **personal medicine** and the overarching goal of recovery.
- 3. The goal of the psychiatrist and treatment team (in relation to medications) is to support clients through decisional conflict to achieve optimal use of personal medicine and psychiatric medicine in support of recovery.

Source: Deegan, P. E. (2007). The lived experience of using psychiatric medication in the recovery process and a shared decision-making program to support it. *Psychiatric Rehabilitation Journal*, 31(1), 62-69. doi:10.2975/31.1.2007.62.69

Steps to shared decision making

- 1. Choice Talk > help people to understand that choices exist and that they are invited to participate in making decisions related to their treatment
- 2. Option Talk >> provide more information about treatment options available, including pros, cons, benefits and harms related to each. Ensure that the person understands the options
- 3. Decision Talk > support the person's consideration of preferences in deciding what is best for them.

Source: Glyn Elwyn, Dominick Frosch, Richard Thomson, Natalie Joseph-Williams, Amy Lloyd, Paul Kinnersley, Emma Cording, Dave Tomson, Carole Dodd, Stephen Rollnick, Adrian Edwards, Michael Barry. Shared decision making: a model for clinical practice (in press: Journal of General Internal Medicine, 2012).

Peer support: formal definition

International Association of Peer Supporters:

Peer support providers are people with a personal experience of recovery from mental health, substance use, or trauma conditions who receive specialized training and supervision to guide and support others who are experiencing similar mental health, substance use or trauma issues toward increased

wellness.

Source: https://inaops.org/definition-peer-specialist/



Peer support: The evidence

2007- CMS (Center for Medicaid Services) said peer support is an EBP

Peer Support Benefit	Study
Less Inpatient use	Clarke et al, 2000: Klein et al, 1998; Min et al, 2007, Landers & Zhou, 2009
More time and engagement with the community	Clark et al, 2000; Min et al, 2007
Better treatment engagement	Craig et al, 2004; Sells et al, 2006; Felton et al, 1995
Greater satisfaction with life	Felton et al, 1995
Greater quality of life	Klein et al., 1998
Better social functioning	Klein et al., 1998
Fewer Problems and needs	Craig et al, 2004; Felton et al, 1995

Source: Adapted from www.academyofpeerservices.org



The power of peer support

 Forchuk et al (2005): Peer support transition program added to psychiatric hospital team had a decrease in the number of hospital days, reduction in readmission rates, increased discharge rates and an increase in quality of social relationships

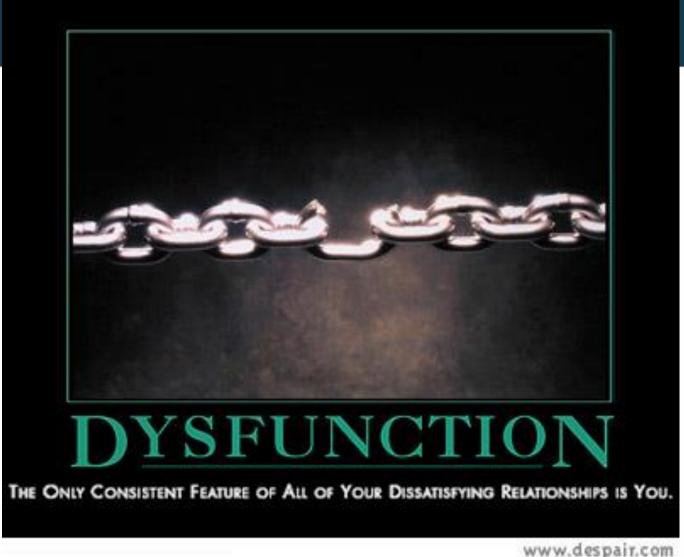


 Ochocka et al (2006) found participants who participated in drop in group alongside peers had fewer emergency room visits and better quality of life.

The common ground approach to shared decision making

- Internet-based computer program with peer specialist support
- People are invited to answer questions about recovery goals
- They are asked to describe their personal medicine
- They rate current symptoms and psycho-social functioning
- They are asked about common concerns that people who take psychiatric medication often experience
- A report is printed out and supplied in advance to their medical provider





www.despair.com



Be realistic when discussing risks

- Some medications may be dangerous when combined with alcohol
 - Benzodiazepines/CNS depressants may be particularly dangerous (additive or multiplicative effects, depending in alcohol use)
- Do not over-emphasize unrealistic levels of dangers for other less risky medications
 - Clients may stop prescription medication and continue to use alcohol and drugs of abuse.
 - Engage clients in a discussion of the risks/costs associated with alcohol use in general, and realistic risks associated with combining with their medication

Clinician factors—communication

 Clinician-Patient relationship may impart the most value in improving adherence.

Key elements are trust and caring.

Promoting participation in decision making.

Positive expectancy/hope.

Source: Cruz M, et al. *Psych Svc.* 2002; 53:1253-1265. Dearing K, et al. *Psych Nurs.* 2004; 18:155-163.

Unrealistic expectations cause dissatisfaction

- Unrealistically High Expectations for Medication Encourages:
 - Premature switching of medications
 - Poly-Pharmacy
 - Non-Adherence
- Do Not Overstate Benefits
 - "70% of people get 70% better"
 - "You are likely to feel better but will still have some remaining symptoms"
 - "Most people have some side effects"
 - "Medication will not fix everything"
 - "If we keep adding meds to fix every single symptom you will end up on so many different meds that it will be hard to function"





General approach:

The approach when talking with clients about psychiatric medication is exactly the same as when talking about their substance abuse decisions.

- Explore the triggers or cues that led to the undesired behavior (either taking drugs of abuse or not taking prescribed psychiatric medications).
- Review why the undesired behavior seemed like a good idea at the time.
- Review the actual outcome resulting from their choice.
- Explore potential discrepancy between their desired outcome and actual outcome
- Strategize with clients about what they could do differently in the future.

Getting started

Take 5-10 minutes every few sessions to go over these topics with your clients:

- Remind them that taking care of their mental health will help prevent relapse.
- Ask how their psychiatric medication is helpful.
- Acknowledge that taking a pill every day is a hassle.
- Acknowledge that everybody on medication misses taking it sometimes.



Getting started

- Consider normalizing occasional missed doses to foster honest reporting, "when first starting a medication, it can be easy or even common to miss a dose. Have you missed any doses since we last met?"
- Ask if they felt or acted different on days when they missed their medication.
- Was missing the medication related to any substance use relapse?
- Without judgment, ask "Why did you miss the medication? Did you forget or did you choose not to take it at that time?"

Consider the following for clients who forget:

- Keep medication where it cannot be missed: with the TV remote control, near the refrigerator, on taped to the handle of a toothbrush. Everyone has 2 or 3 things they do everyday without fail. Put the medication in a place where it cannot be avoided when doing that activity, but always away from children.
- Suggest they use an alarm clock set for the time of day they should take their medication. Reset the alarm as needed.
- Suggest they use a Mediset®: a small plastic box with places to keep medications for each day of the week, available at any pharmacy. Mediset® acts as a reminder and helps track whether or not medications were taken.

For clients who report not wanting to take medications:

 Acknowledge they have a right to choose NOT to use any medication

- Tie discussion back to their recovery goals and utilize motivational interviewing skills to help make sure their decision is well thought out. It is an important decision about their personal health and should be discussed with their prescribing physician.
- Ask their reason for choosing not to take the medication

For clients who report not wanting to take medications:

- Respectfully engage patient beyond an initial "I *just don't like pills*" statement. Try to solicit reasons or values that can be used to engage them in a discussion about barriers or other potential solutions.
- Some possible reasons that clients may not want to take medications could be:
- 1. Don't believe they ever needed it; feel they may have been misdiagnosed or not had their diagnosis/prescription fully explained
- 2. Feel their symptoms have been cured and they no longer require the medication
- 3. Unpleasant or problematic side effects
- 4. Fear the medication will harm them
- 5. Objections or ridicule of friends and family members
- 6. Feel taking medication means they're not personally in control



Assume that all patients will choose to stop taking a medication eventually

- Many people will eventually decide to change or stop taking their medications; it is important to work with them if this happens
- Ask clients how you can help them be successful with stopping the medication, if this is their desire
- Provide recommendations about safe and effective methods of tapering/discontinuing medications (e.g., one at a time, tapering slowly)
- Assist in adjusting or developing the client's recovery plan to account for signs of symptom return/worsening (e.g., "write down your 3 early warning symptoms of relapse on 3 index cards: you keep one, give me one, give one to a friend you see a lot and lets all watch out for relapse symptoms.")

Transition to topics other than psychiatric medications

Ask what supports or techniques they use to assist with emotions and behaviors when they choose not to take the medication.





Offer more than meds — Encourage self-management and recovery

- "When Meds have done as much as they can for you...
 - "What can you do for yourself to get better?"
 - Social interaction
 - Physical activity
 - A regular schedule
 - Changing habits that make you unsatisfied
- "How can you get on with having the kind of life you want in spite of your remaining symptoms?"
 - Explore costs/benefits of functioning alongside symptom X versus avoiding activity until symptom X remits
 - Do client values/reasons for using or discontinuing medication some may feel they do not *deserve* to aspire towards symptom management or that it's unrealistic
 - Has the client come to feel defined by their illness? What does change mean for them?
 - Weave in client's broader interests and values- medication use should fit in with the bigger picture of their life and not consume all of their energy/focus



Predictors of low adherence

Table 2. Major Predictors of Poor Adherence to Medication, Ac	cording to Studies of Predictors.
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Predictor Study

Presence of psychological problems, particularly van Servellen et al., 51 Ammassari et al., 52 Stilley et al. 53

depression

Presence of cognitive impairment Stilley et al., 53 Okuno et al. 54

Treatment of asymptomatic disease Sewitch et al.,55

Inadequate follow-up or discharge planning Sewitch et al., 55 Lacro et al. 56

Side effects of medication van Servellen et al. 51

Patient's lack of belief in benefit of treatment Okuno et al.,54 Lacro et al.56

Patient's lack of insight into the illness Lacro et al., 56 Perkins 57

Poor provider-patient relationship Okuno et al.,54 Lacro et al.56

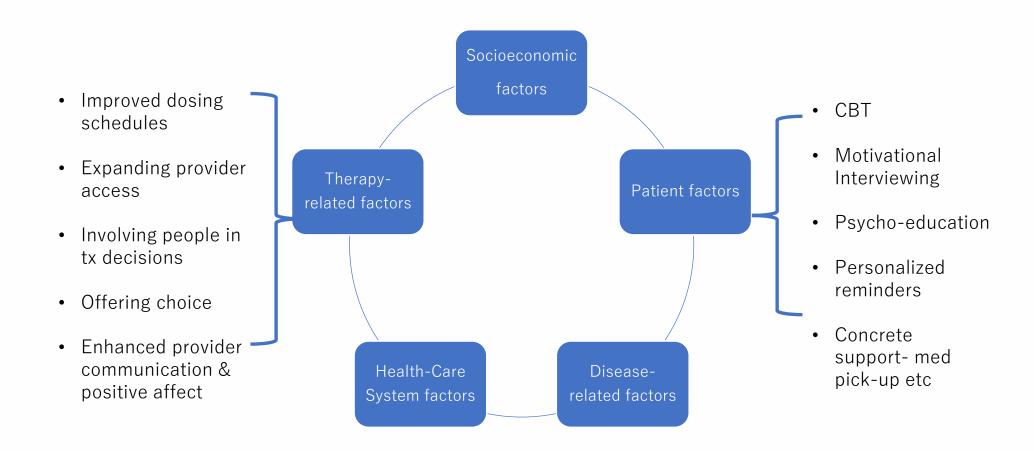
Presence of barriers to care or medications van Servellen et al.,51 Perkins57

Missed appointments van Servellen et al.,51 Farley et al.58

Complexity of treatment Ammassari et al. 52

Cost of medication, copayment, or both Balkrishnan, 59 Ellis et al.60

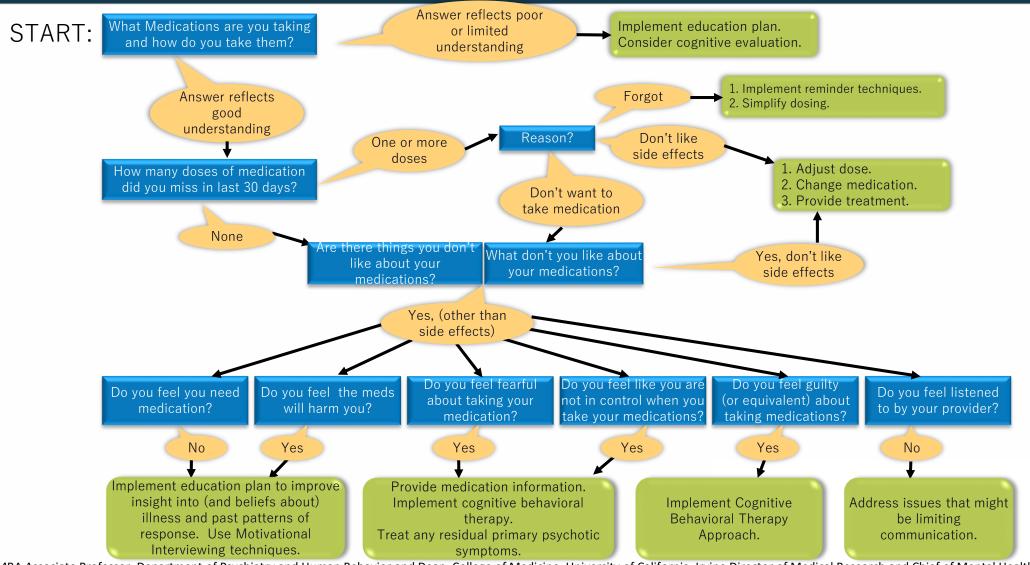
Existing interventions targeting these factors



Source: Costa, E., Giardini, A., Savin, M., Menditto, E., Lehane, E., Laosa, O., ··· Marengoni, A. (2015). Interventional tools to improve medication adherence: review of literature. *Patient Preference and Adherence*, *9*, 1303–1314. http://doi.org/10.2147/PPA.S87551



Patient medication adherence algorithm



Family & Children's Services Tulsa, OK

- Founded 1949
- Staff of 85
- Annual Operating Budget of \$5 million 82% from Medicaid
- Caseload of 6,500, 50% who have SPMI
- Focus on community based programming

Medication adherence strategies

- LAI's since 1970's. Approximately 225 80% court ordered.
- Medication boxes 200 plus delivered weekly.
- Relationship with local pharmacy.
- Medication contracts for controlled.
- Iowa Prescription Monitoring Program access.
- Open Access since March 2013.
- Telehealth expansion since 2011.

Medication adherence strategies

- Patient Assistance Programs
- Americare Program.
- Sample medication.
- Escribing of controlled medications.
- Transportation.
- Pilot Project with UP At Home for those with complex medical problems.

Questions?



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Thank You

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