

Adherence to Oral Antipsychotic Medications

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R01 MH62850-03

Medication Adherence and Schizophrenia

- As many as 75% of patients with schizophrenia become non-compliant within two years of hospital discharge.
- Consequences of non-adherence are severe. More than 50% of patients who discontinue antipsychotics will relapse within 3-10 months.
- Assumed adherence would improve with atypical antipsychotics.

Medication Adherence and Outcomes: A five-year study investigating

- Subjects on either Risperidone or Olanzapine recruited at discharge—projected n=110, data available on the first 70.
- Medication monitored immediately after discharge to ensure adherence during a baseline blood-draw period.
- Followed naturalistically for a 3-month period.
- Multiple assessments of medication adherence.
- Randomized to interventions.

Measures of Medication Adherence at baseline and 3 months post DC

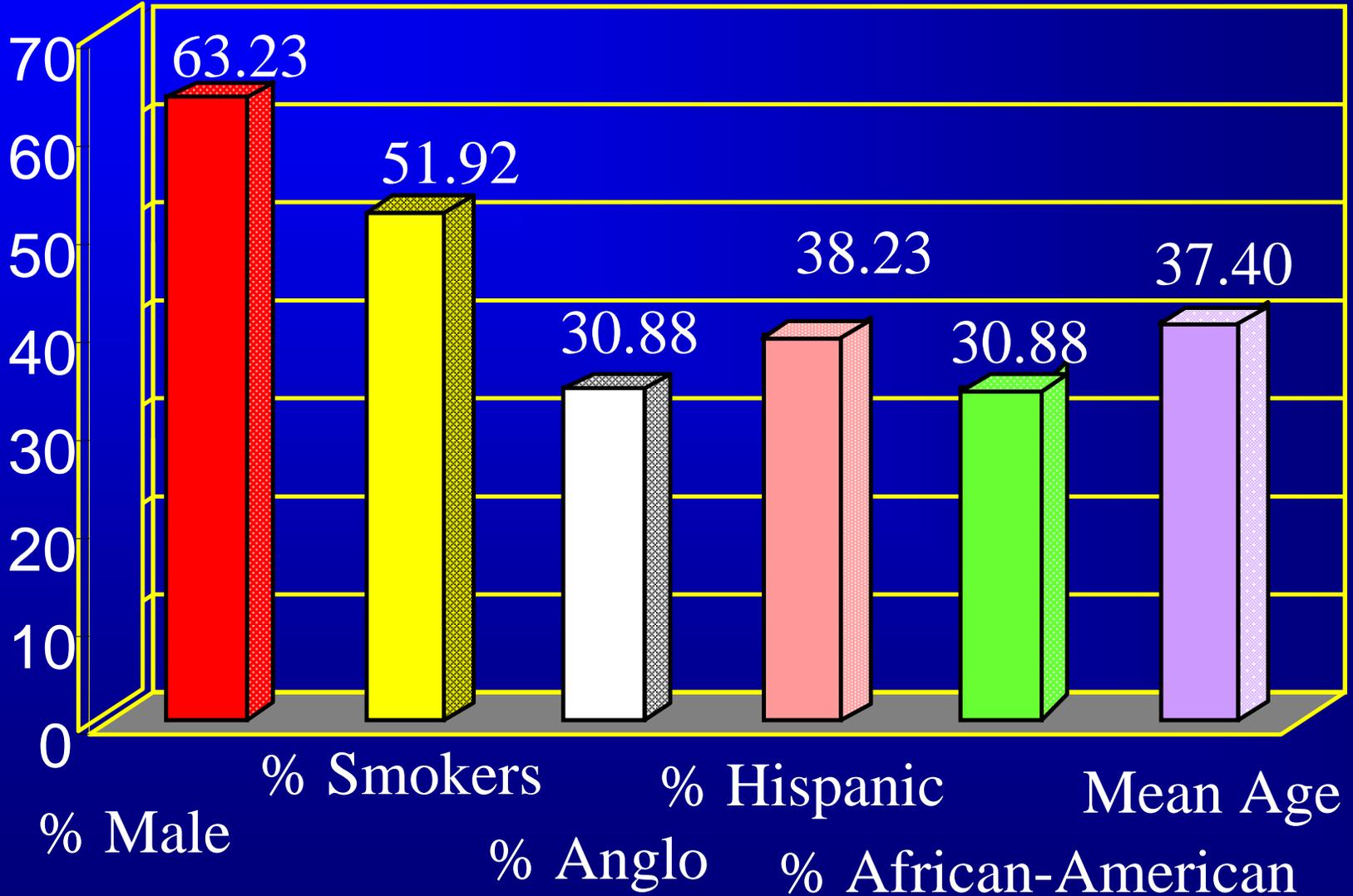
- Blood plasma levels
- Intra individual variability in consecutive, randomly obtained levels compared to levels taken during monitored pill taking
- Pill counts
- Pharmacy refill records
- Self and informant report

Blood draws at baseline

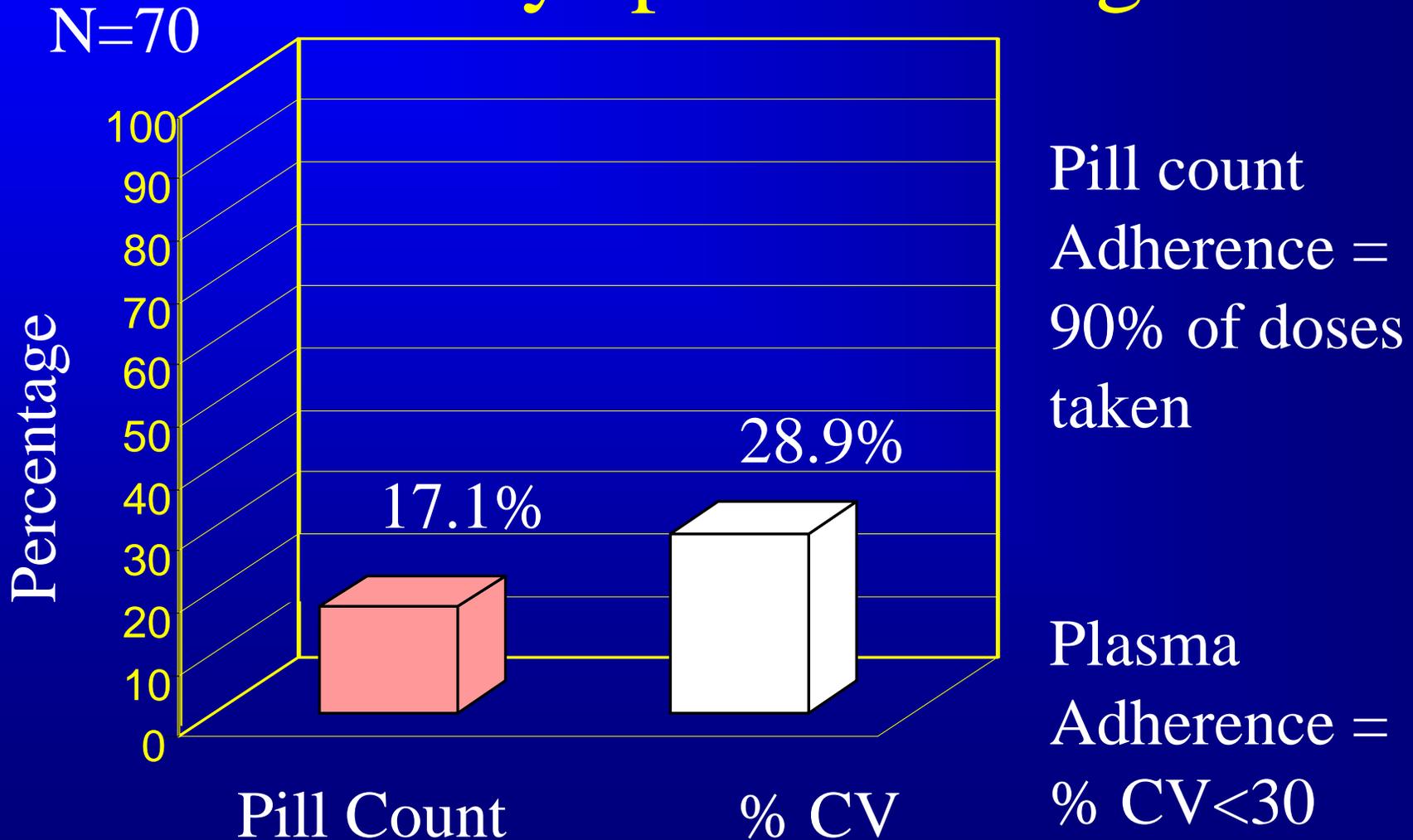
- All medications at steady state
- All doses monitored
- Blood obtained prior to breakfast and dosing on three occasions a minimum of 72 hours apart

2 Random draws obtained at 3 months

Demographics



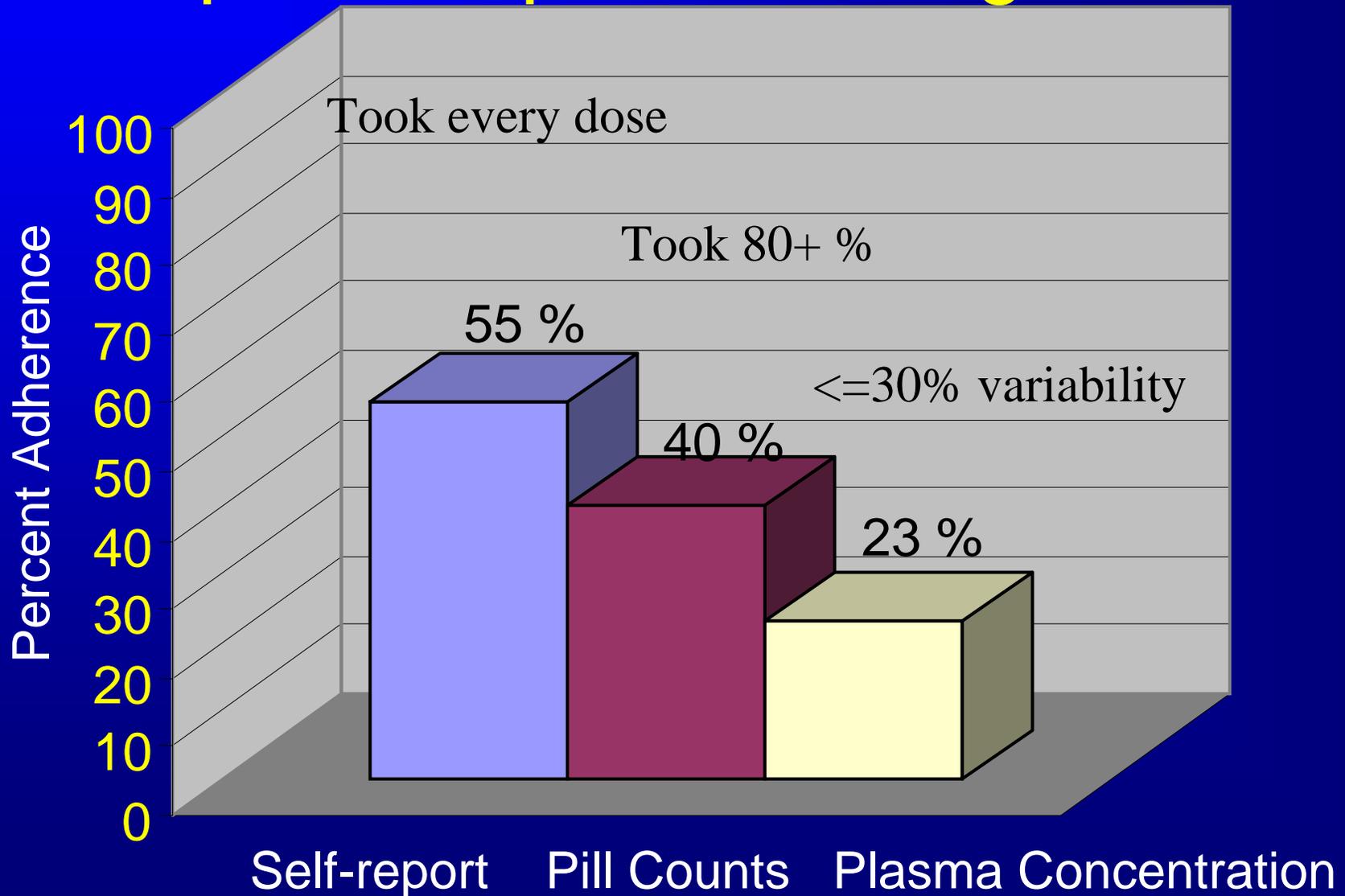
Rates of Poor Adherence 10-days post discharge



Systemic problems contributing to partial adherence

- In 14 patients who resided in board and care homes who were early participants in our NIH funded study of treatment adherence, less than 60% of medication doses were taken in the first 10 days following hospital discharge.

Adherence rates 3-months post hospital discharge

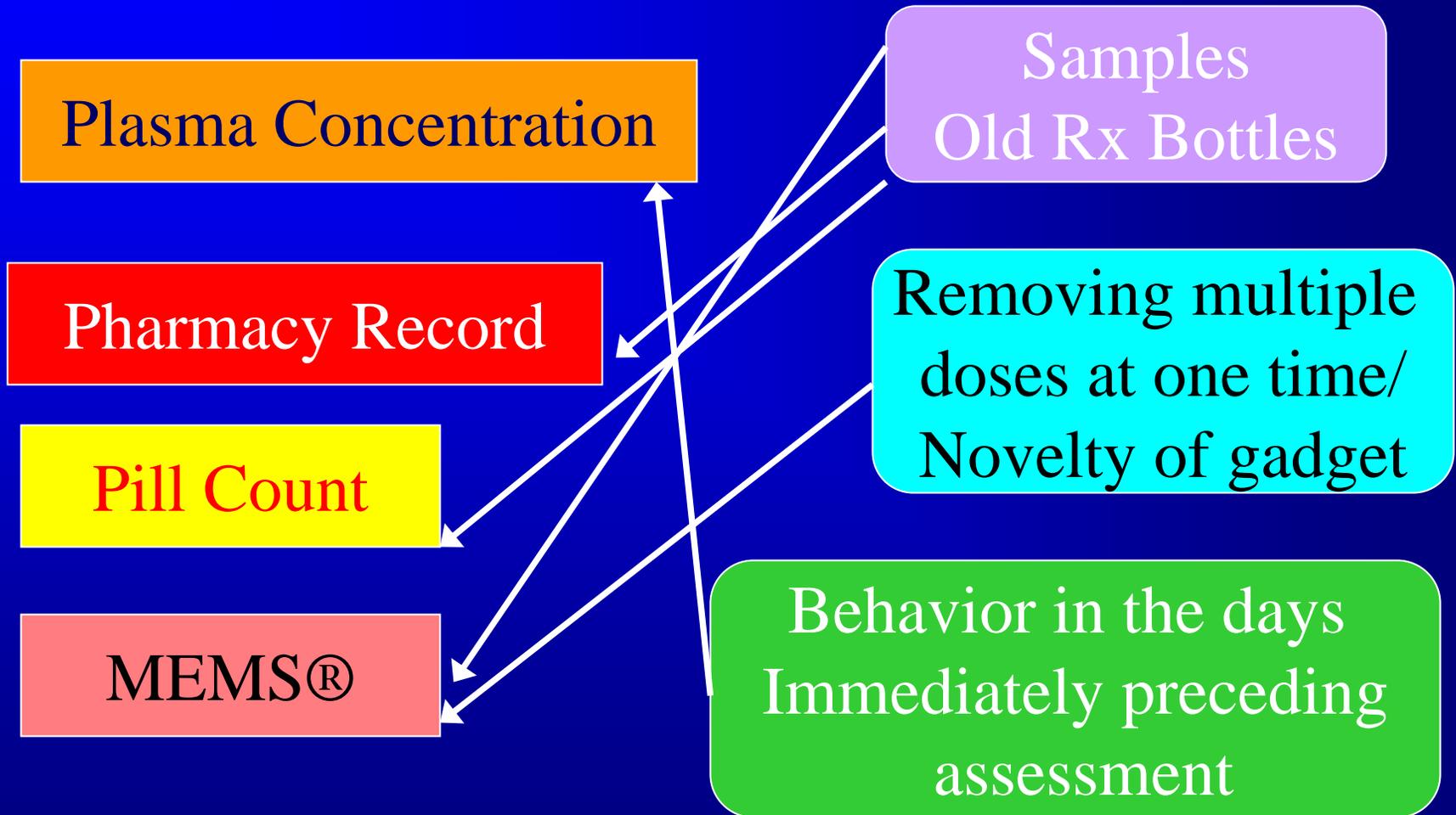


DIS

Agreement Among Methods

- Pill Counts and Blood level analysis
- 70% Agreement Correlation $\approx .40$; $p < .02$
Kappa = .25
- Agreement worse with either measure and self-report

Sources of Disagreement



Problems with all measures—
all are at best a proxy for adherence

Patterns of non-adherence

- Complete refusal to take medication—infrequent.
- Many subjects missing doses--this may later turn into refusal.
- Many subjects consistently take 1/2 of prescribed doses -- particularly with bid or tid medications.
- Most subjects are trying to be compliant.
- Outcomes at 3 months are poor.



Unused medication
found on initial
home visits

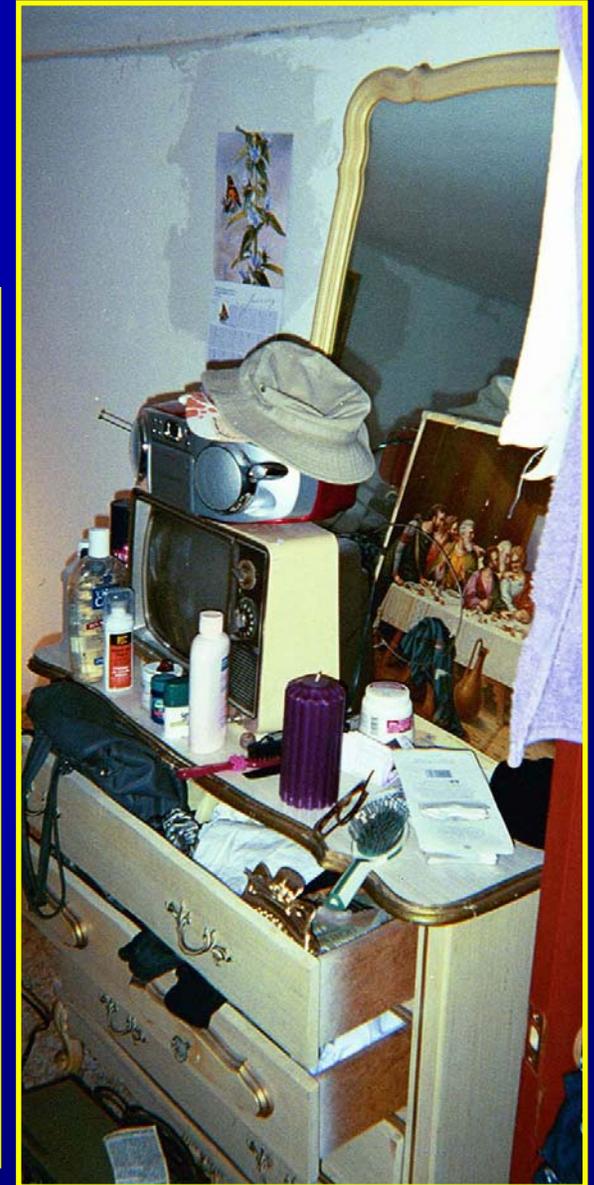


Can We Improve Adherence to Oral Antipsychotics?: Subjects are randomly assigned to various psychosocial interventions to improve adherence

Environmental Barriers to Good Medication Adherence

- Failure to establish routines that promote adherence
- Chaotic surroundings
- Unstable living arrangements
- Lack of necessary household items to track time/days
- Poverty

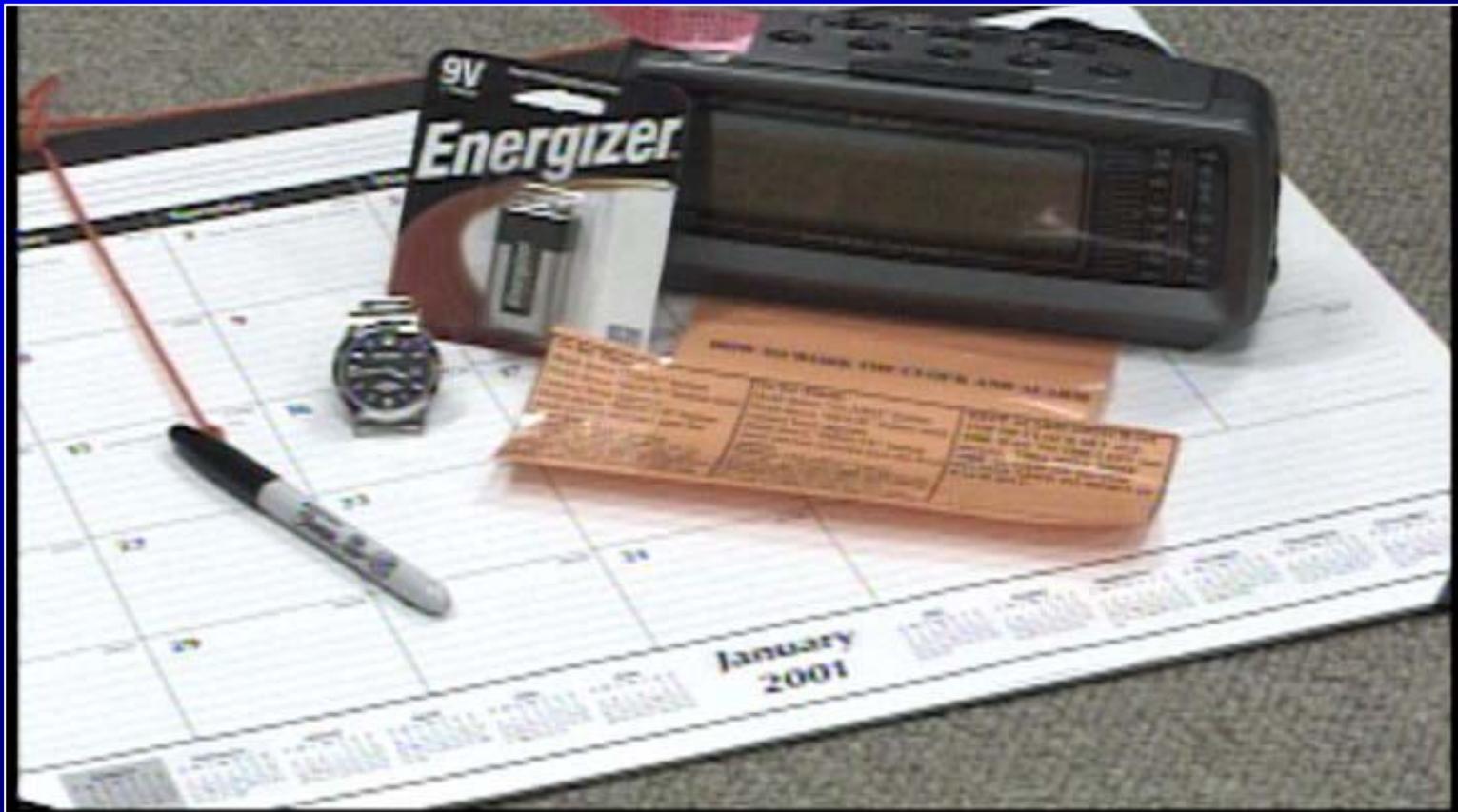
Chaotic Environments



Supports for Medication Adherence



Making it to Appointments and Taking Medication



Signs as reminders to perform specific behaviors

Did I take my
medication today?

Keeping medication with you



Checklists for everyday behaviors

Things to do everyday

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Date							
1. Take shower							
2. Brush teeth							
3. Use deodorant							
4. Put on clean clothes							
5. Take medication							
6. Talk to a friend							
7. Do a fun activity							

Preliminary Conclusions

- Adherence to oral atypical antipsychotics is poor.
- While these newer medications may improve willingness to take medication, many barriers to adequate adherence remain.
- Psychosocial interventions to improve adherence should be pursued.
- Development of long-acting second generation antipsychotic medications should be pursued.