

Assessment of Adherence to Oral Antipsychotic Medications: What Has Changed in the Past Decade?

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Methodological Question

Have the methods used to assess adherence in the published literature improved over the past decade based upon previous recommendations?

Introduction

- Researchers have worked for decades to understand the causes of problem adherence and to develop interventions that improve adherence (Goff & Freudenreich, 2011; Granholm et al., 2012; Velligan et al., 2013).
- Without a common framework that includes standard definitions of the term and appropriate methods of assessment, this goal may remain illusive.
- In a previous review of 161 studies, spanning 3 decades, we found that self-report and other non-objective measures were the primary means of assessing adherence to oral medications, and that consensus regarding the definitions of adherence was completely lacking (Velligan et al., 2006). That article as well as expert consensus guidelines published later (Velligan et al., 2010) presented recommendations for improving the assessment of adherence going forward.
- We examined the next decade of studies measuring adherence to antipsychotic medications in schizophrenia to determine what may have changed.

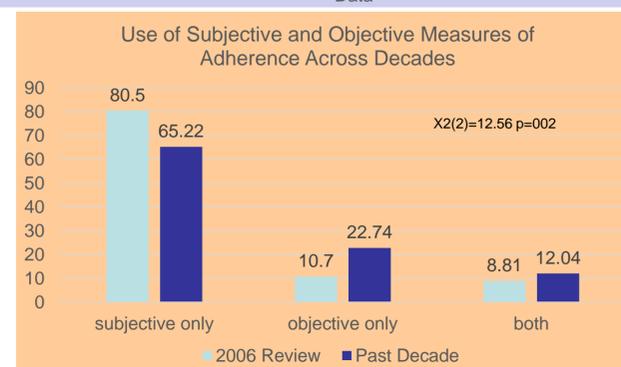
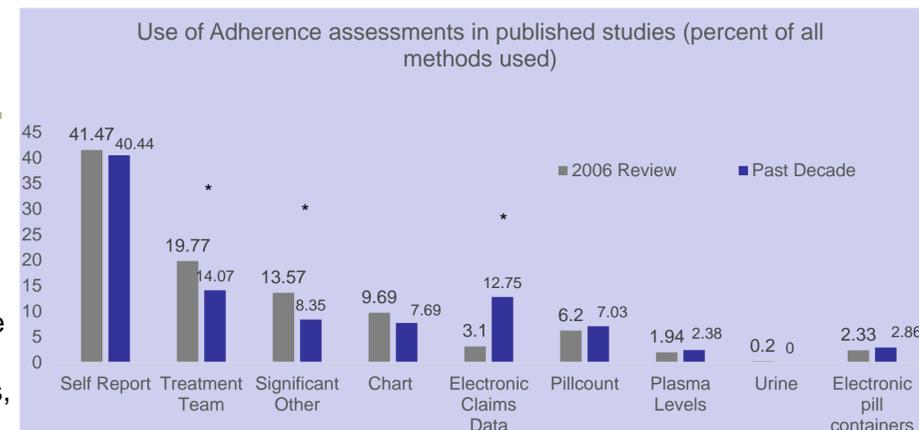
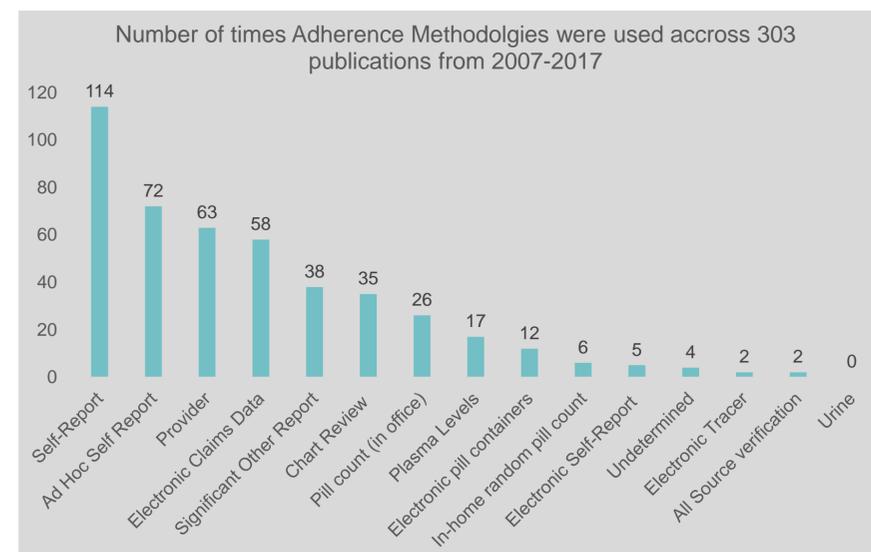
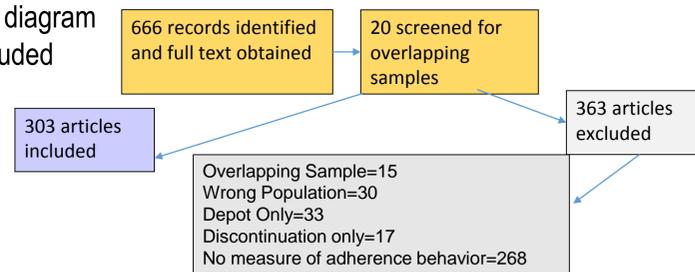
Materials and Methods

- Google scholar, Science Direct, CINAHL, PsychINFO, PsychARTICLES and Medline
- January 1, 2007 to December 31, 2017
- Search terms were medication adherence OR medication compliance OR medication acceptance OR medication follow-through OR medication concordance OR medication persistence AND schizophrenia.
- Focus on medication taking behavior rather than ability, attitudes, or discontinuation only
- Included brief reports to capture novel strategies that were being piloted



Results

Figure 1. Flow diagram of studies included



Widely Variable Definitions of Adherence Across Studies

- "extent to which client agrees to take medication and will take it freely."
- not taking medication as prescribed
- gap greater than or = to 3 mos but timeframes varied from 10 days to 6 mos
- no claim for an antipsychotic in the past 30 days
- plasma level was not in "expected" range
- 3-point; 4 point; 5 point; 6-point, 10-point categorical scales from never took to never missed or completely no adherent to completely adherent—many of these then dichotomized. Usually with no rationale for cut point.
- percentage cutoff for non adherence included 90%, 80%, 75%, 70% and 67%.

Conclusions

- Self-report continues to be the most commonly used measure of adherence, possibly because it is the easiest to obtain.
- Several novel approaches including tracer substances imbedded in pills, randomly timed, unannounced in home pill counts, and electronic self-report are being employed.
- In the past decade, compared to the 3 previous decades, there has been a decrease in the use of measures using input from the treatment team and significant others and a substantial increase in the use of electronic claims data. The decreased reliance on provider report is supported by research demonstrating that providers are poor judges of level of medication adherence (Byerly et al., 2008). Claims data has provided valuable health economic data that can impact practice. (Valenstein et al., 2011)
- As recommended in the previous review and the expert consensus guidelines there the use of objective measures of adherence has substantially increased; but overall continues to be used infrequently.

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