Interventions to improve medication adherence in schizophrenia
Zygmunt A, Olfson M, Boyer C A, Mechanic D

Authors' objectives
To examine psychosocial interventions for improving medication adherence, focusing on promising initiatives, reasonable standards for conducting research in this area, and implications for clinical practice.

Searching
MEDLINE and PsycLIT were searched from 1980 to 2000; the search terms were reported. In addition, Dissertation Abstracts International was searched and manual searches of bibliographies of primary sources, reviews, five established psychiatric journals and conference proceedings were carried out. The authors of the included studies were contacted for unpublished or additional data. Published and unpublished studies reported in English were included.

Study selection
Study designs of evaluations included in the review
Studies comparing outcomes between two or more groups, not necessarily randomised, were included if they had more than 10 patients.

Specific interventions included in the review
Studies of interventions to modify adherence to antipsychotic medications were included. The types of interventions in the included studies were individual patient, group, family, community and mixed modality.

Participants included in the review
Studies in which the majority of the patients had a diagnosis of schizophrenia were included.

Outcomes assessed in the review
Studies with a measure of antipsychotic medication adherence as either a primary or secondary outcome variable were included.

How were decisions on the relevance of primary studies made?
Three authors assessed all the studies for inclusion. Any discrepancies were resolved in team meetings.

Assessment of study quality
The authors did not state that they assessed validity.

Data extraction
The authors did not state how the data were extracted for the review, or how many reviewers performed the data extraction.

Methods of synthesis
How were the studies combined?
A narrative synthesis of the studies was undertaken, according to the intervention.

How were differences between studies investigated?
Details of the studies were tabulated and differences between the studies were discussed in the text of the review.

Results of the review
A total of 39 studies (n=3,972) reported in 45 articles were included: 33 were randomised (n=3,561) and 6 were non-randomised (n=411). There were 4 studies (all randomised) of individual patient interventions (n=249), 4 studies (two randomised, two non-randomised) of group interventions (n=353), 12 studies (all randomised) of family interventions, 10 studies (six randomised, four non-randomised) of community-based interventions and 9 studies (all randomised) of mixed modality interventions.

Thirteen studies (33%) reported significant intervention effects. Nine (69%) of these found improved clinical outcomes in the intervention group at follow-up, including fewer psychiatric symptoms (6 studies), fewer hospitalisations (1 study), fewer days in hospital (2 studies) and prolonged or extended community tenure (2 studies).

Among the 33 random assignment studies, significant effects were found in 2 of the 4 studies of individual interventions, 3 of the 12 studies of family interventions, 3 of the 6 studies of community interventions, and 3 of the 9 studies with mixed treatment modalities. Among the 6 studies without random assignment, one of four community interventions and one of two group interventions reported significant improvement in adherence in the intervention groups.

Psycosocial interventions administered to individuals or families generally did not improve adherence. Family therapy alone did not have a large effect on adherence. Behavioural interventions and cognitive techniques targeting the patients’ attitudes towards medication were more effective at improving adherence. There was some evidence that community treatment improved adherence.

Interventions targeted specifically to problems of nonadherence were more likely to be effective (55%) than were more broadly based treatment interventions (26%). Four of the eight successful interventions that did not specifically focus on nonadherence involved an array of supportive and rehabilitative community-based services.

Authors’ conclusions
Psychoeducational interventions without accompanying behavioural components and supportive services are not likely to be effective in improving medication adherence in schizophrenia. Models of community care, such as assertive community treatment and interventions based on principles of motivational interviewing, are promising.

CRD commentary
The objective of the review was clear and the inclusion criteria were appropriate. The literature search was thorough with attempts to identify unpublished literature. However, by limiting the review to English-language studies, relevant studies could have been missed and the findings might be influenced by language bias. Since the validity of the included studies was not assessed, it is unclear whether the results of the studies and the synthesis of them are reliable. A narrative synthesis was appropriate given the differences between the studies. The authors did not describe how the data were extracted, so it is not possible to determine whether steps were taken to minimise bias in this process. The authors’ conclusions should be interpreted in light of these limitations.

Implications of the review for practice and research
Practice: The authors stated that providing patients with concrete instructions and problem-solving strategies, such as reminders, self-monitoring tools, cues and reinforcements, is useful. Problems in adherence are recurrent and booster sessions are needed to reinforce and consolidate gains.

Research: The authors stated that further theoretical development is needed in future research.

Bibliographic details

PubMedID
Record Status
This is a critical abstract of a systematic review that meets the criteria for inclusion on DARE. Each critical abstract contains a brief summary of the review methods, results and conclusions followed by a detailed critical assessment on the reliability of the review and the conclusions drawn.