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Early detection and assertive community treatment of young psychotics: the Opus Study

Rationale and design of the trial

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Abstract Background: Recent research indicates that early detection of young persons suffering from psychosis and subsequent intensive intervention enhances treatment response and prognosis, but the data are only preliminary and suggestive. Method: We present the rationale and design of the largest study to date to evaluate two major issues in the field of secondary prevention: (1) Does education and intensified collaboration with general practice, social services etc. reduce the duration of untreated psychosis? and (2) Can modified assertive community treatment improve the course and outcome in young persons suffering from psychosis as compared to treatment in community mental health centres? The article aims additionally to put the study in context and assist in designing future studies. Results: Preliminary experiences are described. The findings of the first 312 patients show that modified assertive community treatment results in patients adhering to treatment significantly better than standard treatment in community mental health centres. Conclusion: The surge of interest in preventively oriented detection and treatment models for untreated psychosis in young people calls for research programmes and evidence. The obstacles to this are manifold. The initial findings of the OPUS study suggest, however, that better adherence to treatment is possible.

Introduction

Kraepelin [1] considered dementia praecox to be a chronic or progressive illness leading to severe impairment in cognitive and social functioning, with findings of clinical improvement during follow-up in not more than 17% of cases. While the progress or course of the illness varies, a poor outcome has been considered to be almost inevitable eventually and inherent in the diagnostic conceptualisation.

A review of the literature [2] suggests that early treatment of schizophrenia may correlate with a more favourable outcome and may change the natural history of the illness to the better. The evidence supporting the hypothesis that early detection and intervention can improve on current treatment delivery systems is suggestive, but far from definitive. McGlashan [3] states that former studies have highlighted the following important methodological issues: correlation is not causality, and cases with a better prognosis may also be easier to detect early; problems of lack of replication, historical controls and small samples with an illness whose incidence is uncommon; and the confusion in treatment differences between experimental and control samples.

This article describes the rationale and design of the largest study to date regarding the number of probands to evaluate early detection and assertive community treatment. It aims to put the study in context, assist in designing future studies and highlight initial problems and findings.

Early detection

The early course of schizophrenia has three phases: the premorbid period, the prodromal period and the acute psychosis. Keshavan and Schooler [4] distinguish prodromal symptoms from psychotic symptoms, defining the illness onset as the time when the patient first experiences prodromal symptoms. Since the prodromal symptoms are not specific to schizophrenia, the illness onset must be defined retrospectively or, when described prospectively, only set as a possibility. Defining and measuring the phases around onset is not usually straightforward, however. The specific set chosen to
measure the phases must ensure that the set can be clearly operationalized, reliably applied, and replicated in other studies.

Early detection is theoretically possible in each phase, but projects focusing on early onset of the acute psychosis stage appear to be the most feasible currently [5]. Such studies have illustrated the potential scope for secondary prevention. Prolonged delays before the effective treatment for psychosis have been found to be common (e.g. [6, 7]), delays that have been shown to be associated with slower and less complete recovery (e.g. [8, 9]). Furthermore, the critical period for vulnerability to relapse and the development of disability has been found to be during the early years after onset (e.g. [10, 11]). A toxic interaction between delay in treatment and the critical period may exist, especially in those who ultimately meet criteria for schizophrenia, where treatment delays are more prolonged. This would mean that more of the critical period would elapse before effective treatment.

Early detection programmes aim to decrease the duration of untreated psychosis, and research designs try to test whether this positively affects treatment response and long-term prognosis. The ideal design for testing is a controlled and randomized trial of postponed versus immediate treatment. This is, however, unethical. Realizing this, quasi-experimental designs become relevant for consideration (3,5). In these studies two populations are compared, an experimental and a control population. In the first one an early detection programme is implemented. In interpretation of results from these kind of studies three major sources of confounding variance has to be controlled. Assessment, treatment and population. As to assessment it has to be ensured that assessment in experimental and control population is similar and preferably taken care of by the same assessment team. If early detection succeeds, variance of the samples is inevitable as more cases will be detected in the experimental population. A number of hidden severe cases will be revealed but probably more mild cases will emerge from the special detection process. The population with more mild cases will undoubtedly be treated differently to the population with more severe cases and thus the issue of ensuring comparable samples as to caseness and treatment might be difficult. As to treatment it is crucial to monitor the treatment given to the different populations and preferably identical treatment programmes are implemented in the compared populations. As to population the two populations have to be demographically comparable. Important examples of early detection programmes are the EPPIC-model (12) and the TIPS project (13) where the task has been specialized by detection and assessment teams.

**Assertive community treatment**

The forms and methods of intervention in schizophrenia can vary considerably. A review of efficacy research [14] suggests that a treatment protocol should include medication, family education and support, and assertive continuity of care in the community which has been adopted by American Psychiatric Association in their Practice Guidelines for the Treatment of Patients with Schizophrenia [15]. While the momentum behind the notion of early intervention in first-episode psychosis is growing, it is striking how difficult it can be to apply the rapidly developing expertise in the treatment to the “real world” [16]. Impediments include mind set, money, morale, lack of specific skills, ill-defined focus, inappropriate service organisation and poor case management.

As to case management, most research has been conducted on the assertive community treatment (ACT) or intensive clinical case management models (ICCM). Research on other models of community care is inconclusive [17]. One distinction between the ACT and ICCM models is that caseloads are shared in the former, but not in the latter, although some descriptions of ICCM models refer to shared caseloads. In this context, the ACT is preferred as a common term for community care models with a caseload per worker of 15 patients or less, in contrast to standard case management (SCM) with a caseload of 30–35 patients. The basic tenets of the ACT model (e.g. [18]) include:

1. Most services provided in the community rather than in the office
2. Caseloads shared across clinicians, rather than individual caseloads
3. Twenty-four hour coverage
4. Most services provided directly by the ACT team and not brokered out, and
5. Time-unlimited service.

Controlled research on ACT (e.g. [17, 19, 20]) indicate that this treatment form is more successful in making patients comply with treatment and that ACT-treated patients are less likely to be admitted, meaning less in-patient treatment during an observation period. As to clinical and social variables, ACT clearly improves housing conditions (fewer homeless patients, more patients in stable housing), employment, quality of life and patient satisfaction, while no differences are found as to mental condition, social functioning, self-esteem or the number of deaths. It is not clear what factors are required ingredients of successful case management. The following has been suggested: a single point of accountability (i.e. a key worker); the case manager-patient relationship; adherence to pharmacotherapy; a good multidisciplinary team; inclusion of a psychiatrist as an integrated member of the team; and adherence to the service. Size of caseload, nature of patients and access to support facilities are other factors of impact (e.g. [21, 22]). Previous research on ACT has primarily been applied to socially disabled patients with a high consumption of mental health services, i.e. chronic patients. Consequently, the generalisability of the findings to newly diagnosed and untreated young patients may be questioned.