Schizophrenia Research 118 (2010) 256–263

Contents lists available at ScienceDirect

Schizophrenia Research

journal homepage: www.elsevier.com/locate/schres

Rate and predictors of service disengagement in an epidemiological first-episode psychosis cohort

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ARTICLE INFO

Article history:
Received 29 October 2009
Received in revised form 13 January 2010
Accepted 29 January 2010
Available online 4 March 2010

Keywords:
First-episode psychosis
Disengagement
Treatment adherence
Schizophrenia

ABSTRACT

Objectives: To assess the prevalence and predictors of service disengagement in a treated epidemiological cohort of first-episode psychosis (FEP) patients.
Methods: The Early Psychosis Prevention and Intervention Centre (EPPIC) in Australia admitted 786 FEP patients from January 1998 to December 2000. Treatment at EPPIC is scheduled for 18 months. Data were collected from patients' files using a standardized questionnaire. Seven hundred four files were available; 44 were excluded, because of a non-psychotic diagnosis at endpoint ($n=43$) or missing data on service disengagement ($n=1$). Rate of service disengagement was the outcome of interest, as well as pre-treatment, baseline, and treatment predictors of service disengagement, which were examined via Cox proportional hazards models.
Results: 154 patients (23.3%) disengaged from service. A past forensic history (Hazard ratio [HR] = 1.69; 95%CI 1.17–2.45), lower severity of illness at baseline (HR = 0.59; 95%CI 0.48–0.72), living without family at discharge (HR = 1.75; 95%CI 1.22–2.50) and persistence of substance use disorder during treatment (HR = 2.30; 95%CI 1.45–3.66) were significant predictors of disengagement from service.
Conclusions: While engagement strategies are a core element in the treatment of first-episode psychosis, particular attention should be paid to these factors associated with disengagement. Involvement of the family in the treatment process, and focusing on reduction of substance use, need to be pursued in early intervention services.

1. Introduction

The early phase of psychotic disorders has received increasing attention over the last 20 years, and the efficacy of specialised early intervention programs has now been established through randomised controlled trials (Garety et al., 2006; Petersen et al., 2005). One of the main aims of such programs has been to reduce the duration of untreated psychosis (DUP) (Melle et al., 2004; Marshall et al., 2005; Schimmelmann et al., 2008; Polari et al., 2009) in order to provide treatment at an earlier stage of the illness, considering findings of a link between longer DUP and poorer outcome (Marshall et al., 2005). However, if early identification of patients is an essential element to early intervention, the benefits of these efforts are likely to be mitigated by various factors, among which poor adherence to treatment and disengagement from services are particularly critical. Previous studies have shown that rates of disengagement from outpatient psychiatric services range from 17% to 60% (Garety

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doi:10.1016/j.schres.2010.01.032

et al., 2006) and that this prevalence is also relatively high in programs specialised in early intervention in psychosis, ranging for the majority of them between 18% and 25% (Turner et al., 2007; Malla and Norman, 2001; Craig et al., 2004) after 12 months of treatment. Petersen et al. (2005) reported a remarkably lower disengagement rate (of 7% over 2 years) in the OPUS project, and showed that the development of integrated early intervention programs offers better chances to keep patients in treatment; the disengagement rates reported by other programs providing such type of treatment approach (Turner et al., 2007; Malla and Norman, 2001., 2001; Craig et al., 2004) suggest however that such strategies are not sufficient to resolve the issue in every context.

A better knowledge of the characteristics of first-episode psychosis (FEP) patients who are more likely to disengage from treatment may allow the development of preventive strategies and treatment adaptations that could improve this matter. To our knowledge, only two studies conducted in FEP samples have so far attempted to identify predictors of service disengagement defined as "treatment discontinued in spite of need". First, in a sample of 288 FEP patients followed up for 2 years, Turner et al (2007) found a 24.6% rate of disengagement that was associated with longer DUP, lower levels of psychotic symptoms, presence of a co-morbid substance use disorder (SUD) and low level of insight at program entry, and with a diagnosis of a non-affective psychosis. However, due to the relatively low number of patients included in the study, the regression model constructed on these variables did not allow a good prediction of later disengagement, calling for replication in larger samples. Second, in a sample of 157 adolescents (aged 15 to 18) drawn from the First Episode Psychosis Outcome Study cohort (FEPOS) (Conus et al., 2007), service disengagement occurred in 28% of patients, and was more likely in patients who had lower levels of psychopathology at baseline, persistence of SUD during treatment and were living away from family (Schimmelmann et al., 2006). The focus on such a specific and relatively small sub-group is however likely to have generated information that cannot be generalised to the vast majority of patients, considering onset of FEP usually occurs at a later age.

Taking these elements and limitations into account, we planned the current study in order to explore the issue of service disengagement in a representative cohort of subjects with FEP and to assess (a) the rate of service disengagement in all patients treated at Early Psychosis Prevention and Intervention Centre (EPPIC) between 1998 and 2000 and (b) the predictors of service disengagement from the EPPIC program. Predictors were grouped chronologically in (i) demographic and pre-treatment variables, (ii) baseline variables (i.e. baseline illness characteristics as well as diagnoses) and (iii) variables during the course of treatment.

2. Material and methods

2.1. Context and sample

The initial sample comprised a population-based cohort of 786 patients with FEP, consecutively admitted to the Early Psychosis Prevention and Intervention Centre (EPPIC) in Melbourne, Australia, between 1998 and 2000. EPPIC has a mandate to treat all FEP patients aged 15–29 in their catchment area; as such, the study sample represents an epidemiologically based cohort. The EPPIC program comprises a comprehensive early intervention treatment program, including assertive case management, with a usual episode of care of 18 months. However, the sub-group of patients entering the program between age 15 and 16.5 are offered treatment until they turn 18, leading to episode of care that can last up to 36 months. Additionally, difficulties in organizing post-EPPIC treatment occasionally leads to prolongation of treatment. The service was described in details previously (Edwards and McGorry, 2002). Medication was prescribed according to guidelines that were published as the Australian Clinical Guidelines for Early Psychosis (EPPIC, 1998), in particular with a low dose strategy and a preference for atypical antipsychotic.

2.2. Procedure

This study is part of a large FEP outcome study based on a file audit (FEPOS) (Lambert et al., 2005; Schimmelmann et al., 2007); the study methodology is detailed elsewhere (Conus et al., 2007). During their treatment at EPPIC, patients benefit from various components of the program and all information on pre-treatment, baseline (admission to EPPIC) and outcome characteristics are systematically documented in one single file. Patients are treated according to the Australian Guidelines for Early Psychosis (Edwards and McGorry, 2002) and clinical assessment is based on the Royal Park Multi-diagnostic Instrument for Psychosis (McGorry et al., 1990a,b). A local ethics committee granted approval to access all available data from patients' files that were assessed exclusively by two experienced psychiatrist (ML and PC) using a specifically designed file-audit tool (Early Psychosis File Questionnaire; EPFQ) (Conus et al., 2007). Of the 786 files of patients admitted to EPPIC during the study period, 82 (10%) had been sent to other services after patients were discharged from EPPIC. These patients did however not differ in available demographic characteristics (age and gender) and diagnostic distribution with the rest of the cohort. 43 patients (6.1%) were excluded from the study considering their final diagnosis after 18 months was either a non-psychotic disorder, or a psychosis due to general medical conditions. Of the remaining 661 patients, one patient was excluded due to missing data on service disengagement. Therefore analyses were conducted on the data collected from the files of 660 FEP patients.

2.3. Diagnostic assessment

Clinical diagnoses at EPPIC are the consensus result of an intensive diagnostic and treatment process, first within the initial 6 weeks of admission, by well-trained clinicians working in a specialised assessment and crisis intervention team, and then throughout the entire duration of treatment. FEPOS diagnoses of psychosis and co-morbidities were given according to DSM-IV criteria (APA 1994) on the basis of all information gathered from the file. In case of disagreement with clinical diagnoses reported in the file, a consensus rating between both research psychiatrists and patient's case manager was performed (Schimmelmann et al., 2006).

Validity of the FEPOS diagnoses was established by the following procedure: Between 1998 and 2000, 230 of the 786