European Psychiatry 52 (2018) 126–133

Contents lists available at ScienceDirect

European Psychiatry

journal homepage: http://www.europsy-journal.com

Original article

Long term outcomes of acute and transient psychotic disorders: The missed opportunity of preventive interventions

Grazia Rutigliano[a,b,*], Sergio Merlino[a,b], Amedeo Minichino[a], Rashmi Patel[a], Cathy Davies[a], Dominic Oliver[a], Andrea De Micheli[a], Philip McGuire[a], Paolo Fusar-Poli[a,c,d,e]

[a] Early Psychosis: Interventions and Clinical Detection (EPIC) Lab, Department of Psychosis Studies, Institute of Psychiatry, Psychology & Neuroscience, King's College London, 16 De Crespigny Park, SE5 8AF, London, United Kingdom
[b] Department of Clinical and Experimental Medicine, University of Pisa, Via Roma, 67, 56126, Pisa, Italy
[c] OASIS Service, South London and Maudsley NHS Foundation Trust, 190 Kennington Ln, Lambeth, SE11, London, United Kingdom
[d] National Institute for Health Research (NIHR) Maudsley Biomedical Research Centre, De Crespigny Park, Camberwell, SE5 8AF, London, United Kingdom
[e] Department of Brain and Behavioral Sciences, University of Pavia, Pavia, Italy

ARTICLE INFO

Article history:
Received 11 January 2018
Received in revised form 5 May 2018
Accepted 8 May 2018
Available online xxx

Keywords:
Acute and transient psychotic disorders
Brief psychotic disorders
Psychosis risk
Schizophrenia
Prevention
Early detection

ABSTRACT

Background: Acute and transient psychotic disorders (ATPD) are characterized by an acute onset and a remitting course, and overlap with subgroups of the clinical high-risk state for psychosis. The long-term course and outcomes of ATPD are not completely clear.
Methods: Electronic health record-based retrospective cohort study, including all patients who received a first index diagnosis of ATPD (F23, ICD-10) within the South London and Maudsley (SLaM) National Health Service Trust, between 1 st April 2006 and 15th June 2017. The primary outcome was risk of developing persistent psychotic disorders, defined as the development of any ICD-10 diagnoses of non-organic psychotic disorders. Cumulative risk of psychosis onset was estimated through Kaplan-Meier failure functions (non-competing risks) and Greenwood confidence intervals.
Results: A total of 3074 patients receiving a first index diagnosis of ATPD (F23, ICD-10) within SLaM were included. The mean follow-up was 1495 days. After 8-year, 1883 cases (61.26%) retained the index diagnosis of ATPD; the remaining developed psychosis. The cumulative incidence (Kaplan-Meier failure function) of risk of developing any ICD-10 non-organic psychotic disorder was 16.10% at 1-year (95%CI 14.83–17.47%), 28.41% at 2-year (95%CI 26.80–30.09%), 33.96% at 3-year (95% CI 32.25–35.75%), 36.85% at 4-year (95%CI 35.07–38.69%), 40.99% at 5-year (95% CI 39.12–42.92%), 42.58% at 6-year (95%CI 40.67–44.55%), 44.65% at 7-year (95% CI 42.66–46.69%), and 46.25% at 8-year (95% CI 44.17–48.37%). The cumulative risk of schizophrenia-spectrum disorder at 8-year was 36.14% (95% CI 34.09–38.27%).
Conclusions: Individuals with ATPD have a very high risk of developing persistent psychotic disorders and may benefit from early detection and preventive treatments to improve their outcomes.

1. Introduction

Accounts of brief and acute psychotic episodes [1] are found across different 19th- and 20th-century European psychiatric traditions under various terms (for a recent historical review of these construct see [2]). The unifying feature across these constructs is of short-lived psychotic symptoms that remit within a relatively short period of time. In the modern taxonomy, brief psychotic episodes are classified under "acute and transient psychotic disorders" (ATPDs) in ICD-10, and "brief psychotic disorder" (BPD) in DSM-5 [3]. The World Health Organization defines ICD-10 ATPDs as psychotic episodes fully remitting within 1 to 3 months, with (a) acute onset within 2 weeks; (b) presence of typical syndromes; and (c) presence of associated acute stress [4]. Specifically, the ATPDs include six subtypes: acute polymorphic psychotic disorder without symptoms of schizophrenia (F23.0, remission within 3 months), acute polymorphic psychotic disorder with schizophrenic symptoms (F23.1, remission within 1 month); acute schizophrenia-like psychotic disorder (F23.2, remission

* Corresponding author at: Early Psychosis: Interventions and Clinical Detection (EPIC) Lab, Department of Psychosis Studies, Institute of Psychiatry, Psychology & Neuroscience, King's College London, 16 De Crespigny Park, SE5 8AF, London, United Kingdom.
E-mail address: grazia.rutigliano@kcl.ac.uk (G. Rutigliano).

http://dx.doi.org/10.1016/j.eurpsy.2018.05.004
0924-9338/

within 1 month); acute predominantly delusional psychotic disorder (F23.3, remission within 3 months); and 'other' (F23.8) and 'unspecified' (F23.9) acute and transient psychotic disorders. Complete remission within 1 or 3 months sets the ATPDs with schizophrenic symptoms apart from schizophrenia (the ICD-10 diagnosis of schizophrenia requires at least 1 month's duration), and the ATPDs with polymorphic or delusional features apart from persistent delusional disorder (which lasts longer than 3 months) [3]. Typical syndromes differ across the 6 subtypes, from a "polymorphic" rapidly changing and variable state, which encompasses emotional turmoil, perplexity, and alterations in motility (F23.0 Acute polymorphic psychotic disorder without symptoms of schizophrenia), to subtypes including typical schizophrenic symptoms (F23.1 Acute polymorphic psychotic disorder with symptoms of schizophrenia; F23.2 Acute schizophrenia-like psychotic disorder; F23.3 Other acute predominantly delusional psychotic disorders). Finally, a character may be used to indicate whether the first psychotic symptoms emerged within around 2 weeks of one or more events that "would be regarded as stressful to most people in similar circumstances, within the culture of the person concerned". Examples of such events include bereavement, marriage, terrorism and unexpected loss of partner or job, but should not include long-standing difficulties.

Conversely, in the Diagnostic and Statistical Manual of Mental Disorders, fifth edition (DSM-5), the American Psychiatric Association classifies Brief Psychotic Disorders (BPD) as psychotic conditions lasting 1 day or more but less than 1 month, with complete remission to the premorbid level of functioning [5]. A diagnostic comparison of these two categories has been presented in a recent publication by our group, which is beyond the scope of the current study [2].

Clinical research interest in ATPDs has grown substantially since their reconceptualization as a state of risk for the development of persistent psychotic disorders, approximately two decades ago. Accordingly, the Clinical High Risk State for Psychosis (CHR-P) [6] defines individuals who are at risk of developing psychotic disorders but not other emerging mental disorders [7,8]. The CHR-P group includes the Brief and Limited Intermittent Psychotic Symptoms (BLIPS) subgroup, which also features short-lived psychotic episodes [9]. Compared to ATPDs −which are defined clinically-, the BLIPS are defined through specific psychometric tools [10]. There is substantial diagnostic (around 70% of BLIPS cases also meet ATPD criteria [11]) and prognostic overlap (with similar levels of psychosis risk over time [2]) between the BLIPS and ATPD categories. Reconceptualization of ATPDs within the CHR-P framework has allowed early detection and preventive treatments to be offered to some of these patients [12].

Whatever the designation, there is converging evidence that brief psychotic episodes are associated with a very high risk of developing persistent psychotic disorders, in particular schizophrenia spectrum psychoses. Recently, we have meta-analytically estimated that up to half of patients (0.56, 95% CI 0.52–0.60) with an ATPD (and BPD) developed another psychotic disorder at an average follow-up of 4.5 years, mostly schizophrenia-spectrum disorders (encompassing schizophrenia 0.21 95% CI 0.16–0.25, schizophreniform disorder 0.02 95% CI 0.00–0.14, and schizoaffective disorder 0.02 95% CI 0.00–0.06), and less frequently affective psychoses 0.12 95% CI 0.07–0.16 [13]. There is less evidence on the longer–term outcomes of ATPD individuals. Our meta-analysis uncovered 8 cohort studies reporting on ATPD outcomes at 8 years or longer [2]. However, the vast majority of them were based on small samples, ranging from 15 to 54 patients [14–20], with inaccurate outcome estimates. Only one study involved a large cohort of ATPD cases [21]. Since the long-term results of this study have not been validated externally (outside the Danish psychiatric population), their generalizability is currently unclear.

The current study sought to overcome this limitation in knowledge. Here, we report the longitudinal diagnostic outcomes of ATPDs as recorded in a clinical case register that was representative of secondary mental health care in the UK. Our first aim was to report and describe the risk of developing persistent psychotic disorders in the long term, and then to report the specific risk of developing schizophrenia-spectrum disorders. As additional analyses, we also described all diagnostic changes occurring within the follow-up period.

2. Materials and methods

2.1. Data source

Data for this study were automatically extracted from the South London and Maudsley (SLaM) Biomedical Research Centre (BRC) Case Register, using the Clinical Record Interactive Search tool (CRIS). Developed in 2008, CRIS enables the search of anonymized, real-time information from the electronic health records of patients receiving treatment within SLaM [22]. SLaM is a large National Health Service (NHS) Trust providing specialist mental health care to a catchment area of 1.3 million residents across four South London boroughs (Lambeth, Southwark, Lewisham and Croydon) [22]. Every patient within SLaM has their full personal electronic health record, which must be continually updated by SLaM health care professionals as a legal requirement [22]. Since CRIS derives direct information from these electronic health records, it is an advantageous source of "real-world" and "real-time" information on routine mental health care [23]. CRIS was approved by the Oxfordshire Research Ethics Committee C (reference 08/H0606/71 + 5). Access to the anonymized data for this study was reviewed, monitored and audited by an Oversight Committee, which carries representation from the SLaM Cauldicott Guardian and is chaired by a service user. The CRIS Oversight Committee is responsible for ensuring that all research applications comply with ethical and legal guidelines; approval for this study was granted on the 4th August 2014. CRIS has been extensively used in over 70 previous studies, some of which appeared in high impact factor journals [24–26].

2.2. Study population

All individuals who received a first index diagnosis of ATPD (F23, ICD-10) within SLaM between 1st April 2006 and 15th June 2017 were initially considered eligible. Consent from patients was not needed as data are completely de-identified [22]. We then excluded those with very short-term diagnostic instability, defined as diagnostic change occurring within the 3 months immediately following the first index diagnosis of ATPD (i.e., in the context of the index episode itself). This was intended as a more robust and complete method of measuring diagnoses, excluding provisional highly unstable diagnoses recorded during the period of observation. This approach has already been validated in a previous study by our group, published in a high impact factor journal [27]. The remaining sample was therefore composed of all patients with a first index diagnosis of ATPD, who retained the index diagnosis up to 3 months.

2.3. Study measures

The primary outcome was the long-term (up to 8-year) risk of developing persistent psychotic disorders, defined as the onset of the first ICD-10 diagnoses of non-organic psychotic disorders since index diagnosis: schizophrenia-spectrum disorders (schizophrenia [F20.x,