Schizophrenia Research xxx (2017) xxx–xxx

Contents lists available at ScienceDirect

Schizophrenia Research

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

Is going into stable symptomatic remission associated with a more positive development of life satisfaction? A 10-year follow-up study of first episode psychosis

Erlend Strand Gardsjord [a,c,*], Kristin Lie Romm [b,c], Jan Ivar Røssberg [b,c], Svein Friis [b,c], Helene Eidsmo Barder [d], Julie Evensen [b,e], Ulrik Haahr [f], Wenche ten Velden Hegelstad [g], Inge Joa [g,h], Jan Olav Johannessen [g,h], Johannes Langeveld [g], Tor Ketil Larsen [g,i], Stein Opjordsmoen [b], Bjørn Rishovd Rund [j,k], Erik Simonsen [f,l], Per Vaglum [m], Thomas McGlashan [n], Ingrid Melle [a,c]

[a] Institute of Clinical Medicine, KG Jebsen Centre for Psychosis Research, NORMENT: Norwegian Centre for Mental Disorders Research, Faculty of Medicine, University of Oslo, 0318 Oslo, Norway
[b] Institute of Clinical Medicine, Faculty of Medicine, University of Oslo, 0318 Oslo, Norway
[c] Division of Mental Health and Addiction, Oslo University Hospital, 0407 Oslo, Norway
[d] Women and Children's Division, Oslo University Hospital, 0407 Oslo, Norway
[e] Adult Psychiatric Department Vinderen, Diakonhjemmet Hospital, 0319 Oslo, Norway
[f] Psychiatric Research Unit, Region Zealand, 4000 Roskilde, Denmark
[g] Psychiatric Division, Network of Clinical Psychosis Research, Stavanger University Hospital, 4068 Stavanger, Norway
[h] Faculty of Social Sciences, University of Stavanger, 4036 Stavanger, Norway.
[i] Department of Clinical Medicine, Section Psychiatry, University of Bergen, 5021 Bergen, Norway
[j] Department of Psychology, University of Oslo, P.O. 1094 Blindern, 0317 Oslo, Norway
[k] Vestre Viken Hospital Trust, 3004 Drammen, Norway
[l] Institute of Clinical Medicine, Faculty of Health and Medical Sciences, University of Copenhagen, 2200 Copenhagen N, Denmark
[m] Department of Behavioural Sciences in Medicine, University of Oslo, 0318 Oslo, Norway
[n] Department of Social and Behavioural Health, Yale School of Medicine, Yale University, New Haven, CT, USA

ARTICLE INFO

Article history:
Received 15 December 2016
Received in revised form 16 June 2017
Accepted 3 July 2017
Available online xxxx

Keywords:
Schizophrenia
First episode psychosis
Quality of life
Life satisfaction
Remission
Long-term follow-up

ABSTRACT

Background: Quality of life is an important outcome measure for patients with psychosis.
We investigated whether going into stable symptomatic remission is associated with a more positive development of subjective quality of life (S-QoL) and if different patient characteristics are associated with S-QoL depending on remission status.
Methods: Three hundred and one patients with a first-episode psychosis were included at baseline. At 10-year follow-up 186 were reassessed. QoL was assessed by Lehman's Quality of Life Interview. Remission was defined according to criteria proposed by the Remission in Schizophrenia Working Group. One-way ANOVA, mixed model analysis, bivariate correlations and multiple regression analyses were performed.
Results: Patients going into stable symptomatic remission showed a more positive S-QoL-development over the follow-up period and reported higher life satisfaction at 10-year follow-up compared to non-remission. At 10-year follow-up, depressive symptoms and alcohol abuse or dependence explained a significant amount of variance in S-QoL among patients in remission. Among patients in non-remission, PANSS excitative component explained a significant amount of variance in S-QoL. All significant effects were negative.
Conclusions: Stable symptomatic remission is associated with a more positive development of overall life satisfaction. Furthermore, different symptoms influence life satisfaction depending on status of remission. This has important clinical implications. While patients in remission might need treatment for depressive symptoms to increase S-QoL, in non-remission measures aiming to decrease hostility and uncooperativeness should be part of the treatment approach. Alcohol problems should be treated regardless of remission status.

1. Introduction

Over the last decades, the heterogeneity of long-term outcome in schizophrenia and related psychotic disorders has become increasingly clear. Some patients experience continuous symptoms of psychosis,

* Corresponding author at: NORMENT, KG Jebsen Center for Psychosis Research, Institute of Clinical Medicine, Faculty of Medicine, University of Oslo, 0318 Oslo, Norway.
E-mail address: e.s.gardsjord@medisin.uio.no (E.S. Gardsjord).

http://dx.doi.org/10.1016/j.schres.2017.07.006
0920-9964/

while others develop stable symptomatic remission (Andreasen et al., 2005; Emsley et al., 2007; Lambert et al., 2008; Wunderink et al., 2009; Hegelstad et al., 2013; Austin et al., 2013). The most commonly used definition of remission today is based on the criteria proposed by The Remission in Schizophrenia Working Group (RSWG) (Andreasen et al., 2005). According to these criteria, being in remission is characterized by lack of both positive symptoms (e.g. hallucinations, delusions and disorganization), and negative symptoms (e.g. blunted affect and avolition) over the last six months (the time criterion). As such, the criteria do not include affective symptoms, substance use problems and other important aspects such as daily life functioning and quality of life (QoL).

QoL is most commonly conceptualized as having both an objective part reflecting socio-economic factors, and a subjective part (S-QoL) reflecting life satisfaction (Katschnig, 2000; Malla and Payne, 2005; Karow et al., 2014; Eack and NewHill, 2007). Life satisfaction is an aspect transcending both symptoms and functioning, and thus a central part of outcome in chronic disorders. We have recently shown that socio-economic factors like more family contact, better financial situation and more daily activities are important for a positive S-QoL-development the first 10 years after a first episode psychosis (FEP) (Gardsjord et al., 2016). Regarding psychiatric symptoms, S-QoL has been shown to be most consistently associated with general psychopathology such as depressive symptoms, while positive psychotic symptoms are probably of less importance (Eack and NewHill, 2007; Priebe et al., 2011).

Previous longitudinal FEP-studies investigating the association between S-QoL and symptomatic remission show mixed results. Both Boden et al. (2009) and Jaracz et al. (2015) found remission at follow-up associated with higher S-QoL-level. In the study by Jaracz et al. (2015), the difference in S-QoL between remission and non-remission was stable over the follow-up period. Hence, one cannot conclude from the study that going into remission is associated with a more positive S-QoL-development. The same applies to the study by Boden et al. (2009) as only data from the follow-up assessment were collected. These studies didn't apply the time criterion when defining remission. Wunderink et al. (2007), applying the time criterion, found a small increase in S-QoL from baseline to follow-up regardless of remission status and no association between remission status and S-QoL at follow-up. This study included patients in remission from positive psychotic symptoms at baseline, and is therefore less suitable to investigate if going into stable remission is associated with a more positive S-QoL-development. To sum up it is unclear if going into stable remission is associated with a more positive S-QoL-development. A follow-up study of FEP included at first treatment is suitable for addressing this question.

Given the heterogeneity in outcomes, patient characteristics associated with S-QoL may be different among patients in remission and non-remission. This has not been investigated according to criteria proposed by the RSWG. In addition, stable remission of symptoms is not necessarily associated with adequate functioning/full recovery (Hegelstad et al., 2012). The impact this has on life satisfaction has not been investigated before.

In the present study we address the knowledge gap described in the previous paragraphs. We aimed to investigate;

1) if being in stable symptomatic remission was associated with a higher life satisfaction at 10-year follow-up,
2) if being in full recovery is associated with higher life satisfaction compared to patients in remission, but not in full recovery
3) if patients that go into stable symptomatic remission show a more positive development of life satisfaction compared to non-remission,
4) associations between life satisfaction and psychiatric symptoms, socio-economic factors and substance use problems at 10-year follow-up in groups according to remission status.

2. Materials and methods

2.1. The TIPS study

The TIPS (Early Treatment and Intervention of Psychosis) study is a large prospective FEP-study of clinical, epidemiologic samples from four Scandinavian catchment areas. Patients were assessed with a large clinical battery at baseline, and reassessed after one year, two years, five years and 10 years. Reliability has been shown to be good for symptoms and diagnosis. The study is more thoroughly described elsewhere (Melle et al., 2004; Hegelstad et al., 2012).

2.2. Study subjects

In total 301 individuals with a first-episode psychosis were included from 1997 through 2000. At 10-year follow-up 186 participants of the original sample were reassessed.

The criteria for inclusion were:

1) A first episode of schizophrenia, schizophreniform disorder, schizoaffective disorder, delusional disorder, mood disorder with mood-incongruent psychotic features, brief psychotic disorder or psychosis not otherwise specified.
2) Living in the catchment area.
3) Age 18–65 years (15–65 years in Rogaland).
4) IQ > 70.

Individuals with a neurological or endocrine disorder with relationship to the psychotic disorder were excluded. Other exclusion criteria were contraindications to antipsychotic medication, did not speak a Scandinavian language; or were unable to give an informed consent. Only individuals in their first episode of psychosis were included and they should not have received adequate treatment for psychosis previously (defined as antipsychotic medication of >3.5 haloperidol equivalents for >12 weeks or until remission of positive psychotic symptoms). Among those included, 86% were drug naïve. Five percent had taken antipsychotic medication in therapeutic doses before entering the study, however only for a median of 2 weeks. All participants gave a written informed consent. The study was approved by the regional ethical research committees.

2.3. Instruments

Diagnostic evaluation was based on the structured clinical interview for the DSM-IV (SCID-1) (First et al., 2002).

Symptoms were assessed by the Positive and Negative Syndrome Scale (PANSS) (Kay et al., 1987). Symptom levels were represented by PANSS components; positive, negative, excitative, cognitive, and depressive (Bentsen et al., 1996). Remission of psychosis was defined by criteria proposed by the RSWG (Andreasen et al., 2005); a score of <4 over the last 6 months on the following PANSS-items: P1 (delusions), P2 (conceptual disorganization), P3 (hallucinations), N1 (blunted affect), N4 (passive/apathetic social withdrawal), N6 (lack of spontaneity and flow of conversation), G5 (mannerisms and posturing) and G9 (unusual thought content).

Full recovery was operationalized as a single "yes" variable for all patients who met criteria for both symptomatic remission and adequate functioning. Adequate functioning was assessed by the subscales of the Strauss-Carpenter Level of Function Scale (Strauss and Carpenter, 1977) measuring independent living, role functioning and social interaction. A score of 4 indicates adequate functioning over the previous 12 months, while 0 indicates very poor functioning over the same period. A score of 4 on all three subscales were considered as adequate functioning.

Please cite this article as: Gardsjord, E.S., et al., Is going into stable symptomatic remission associated with a more positive development of life satisfaction? A 10-year follow-up s..., Schizophr. Res. (2017), http://dx.doi.org/10.1016/j.schres.2017.07.006