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Psychosocial functioning, quality of life and clinical correlates of comorbid alcohol and drug dependence syndromes in people with schizophrenia across Europe ☆

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ABSTRACT

Little is known about the correlates of comorbid drug and alcohol dependence in people with schizophrenia outside the USA. We tested hypotheses that dependence on alcohol/drugs would be associated with more severe symptoms, and poorer psychosocial functioning and quality of life. The EuroSC Cohort study (N=1204), based in France, Germany and the UK, used semi-structured clinical interviews for diagnoses, and standardized tools to assess correlates. We used mixed models to compare outcomes between past-year comorbid dependence on alcohol/drugs, controlling for covariates and modelling both subject and country-level effects. Participants dependent on alcohol or drugs had fewer negative symptoms on PANSS than their non-dependent counterparts. However, those dependent on alcohol scored higher on PANSS general psychopathology than those who were not, or dependent only on drugs. People with schizophrenia dependent on drugs had poorer quality of life, more extrapyramidal side effects, and scored worse on Global Assessment of Functioning (GAF) than those without dependence. People with alcohol dependence reported more reasons for non-compliance with medication, and poorer functioning on GAF, though not on Global Assessment of Relational Functioning. In people with schizophrenia, comorbid dependence on alcohol or drugs is associated with impaired clinical and psychosocial adjustment, and poorer quality of life.

1. Introduction

A substantial proportion of people with schizophrenia misuse alcohol and other drugs (Green et al., 2005; Swartz et al., 2006a; Koskinen et al., 2009, 2010), though this varies between different settings and geographical areas (Carrà et al., 2012). However, this body of research has been troubled by methodological issues. Samples have often been based on clinical convenience rather than on epidemiological principles, involving small sample sizes, and recruiting from specific settings and locations (Carrà and Johnson, 2009). In addition, the assessment of substance use has often been inadequate, with relatively few studies making full diagnostic assessments (Drake et al., 1993). Moreover, correlates have been described in relation, variously, to point, period and life-time prevalence (Goldfinger et al., 1996), and dependence disorders involving alcohol and other drugs have frequently not been distinguished from DSM-IV abuse (ICD–10 harmful use), though the consequences of dependence may be much more severe than those of harmful use in people with schizophrenia (Olfson et al., 2002; Potvin et al., 2006b; Kerfoot et al., 2011; Carrà et al., 2015).

☆Findings from the European Schizophrenia Cohort (EuroSC).

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Indeed, DSM 5 has combined DSM-IV substance abuse and dependence into a single disorder, measured on a mild to severe continuum of severity (Hasin et al., 2013; Bartoli et al., 2015). Though the bulk of the evidence is from the US, a significant body of research has now built up in Europe (i.e., Soyka et al., 2001; van Os et al., 2002; Weaver et al., 2003; Morrens et al., 2011). This has contributed to the development of specialized treatment programs for these complex clinical populations, whose models of co-morbidity are not entirely clear (Carretta et al., 2015).

The characteristics of clinical populations with both schizophrenia and substance use disorders are universally worse than their non-abusing counterparts (Margolese et al., 2004; Kerner, 2015), including clinical (Kerfoot et al., 2011; Jones et al., 2011), physical (Rosenberg et al., 2001) and legal (Carrà et al., 2015) outcomes. Nonetheless, it has been suggested that psychosocial functioning and quality of life (QoL) might actually be better in substance-abusing people with schizophrenia than in those who are abstinent, given that they need the skills to engage with drug-dealers in order to secure supplies (Salyers and Mueser, 2001; Swartz et al., 2006b). However, this might only be true in those people with schizophrenia who misuse drugs and alcohol rather than those with actual dependence. The issue has been clouded, both by the question of cross-cultural applicability (Heinrichs et al., 1984), and by problems in content validity (Schooler et al., 1979). Finally, since the correlates of dependence on alcohol in the general population differ from those of dependence on other drugs (Rehm et al., 2006), this may also be the case in people with schizophrenia.

More precise knowledge of the correlates of comorbid substance misuse should increase understanding of the impact of local social circumstances on these associations, and the identification of clinical subpopulations with residual competencies and skills, suitable for targeting with specialist treatment programs (Carrà et al., 2006).

The European Schizophrenia Cohort (EuroSC) survey provides an opportunity to do this, as it was specifically set up to compare the attributes and correlates of schizophrenia in three European countries, France, Germany and the UK (Bebbington et al., 2005). Using a large and representative sample of people with schizophrenia in community mental health care, it showed lifetime rates of 35% for comorbid dependence on any substance in the UK, but considerably lower values in Germany (21%) and in France (19%). These differences between countries persisted after controlling for individual clinical and demographic characteristics (Carrà et al., 2012).

Our aim in the current study was to use the baseline EuroSC data to investigate cross-nationally the socio-demographic, clinical, social functioning and quality of life (QoL) correlates of dual diagnosis in people with schizophrenia. We examined dependence on alcohol and on other drugs separately. We hypothesised that, after adjusting for country of residence, people with schizophrenia and comorbid dependence would have significantly worse clinical symptoms, psychosocial functioning, and quality of life. As a secondary hypothesis, we predicted that drugs would be associated with fewer impairments in psychosocial functioning and QoL than dependence on alcohol.

2. Methods

2.1. Sample

The European Schizophrenia Cohort (EuroSC) survey was a naturalistic follow-up of a cohort of people aged 18–64, suffering from schizophrenia, and in contact with secondary psychiatric services, i.e., community outpatient services according to national organizational standards, in nine community mental health catchment areas in France, Germany, and the UK (Bebbington et al., 2005). The current analysis is based on cross-sectional data from the first stage interview. Local ethical approval for the study was obtained in each country. The settings, sampling strategies and inclusion/exclusion criteria are fully described elsewhere (Bebbington et al., 2005). In brief, in France, people were recruited from three centres located in a city or in medium-size towns from northern (Lille), central (Lyon), and southern France (Marseille). In Germany four catchment areas were identified for the study: two in the former East Germany (Leipzig and the nearby Altenburg area) and two in the former West (Hemer and the County of Heilbronn). The British study centres were Islington, an inner-city area of London, and the reasonably affluent area of Leicestershire minus the city of Leicester. Random sampling from lists of service users was adopted in all the French centres and in London, while an exhaustive inclusion strategy was used for the German centres and Leicestershire. Eligible patients were aged 18–64 years at the time of enrolment in the study, had a diagnosis of schizophrenia according to DSM–IV criteria, and had given signed informed consent. People who had been hospitalised for the past 12 months, or were currently intoxicated, roofless or planning to leave the area, making follow-up assessment impracticable, were excluded.

2.2. Procedure

Individuals from the final list of participants were contacted consecutively by trained research assistants, seeking their informed consent, and fully reassuring them about their privacy protection also with the help of local clinicians if needed. If they agreed, they were interviewed at home or in a clinical facility over approximately three hours. Assessments sometimes required more than one session in order to avoid impairment of level of attention and willingness to collaborate. The study was observational, as no intervention was made either by, or at the behest of, the research team.

2.3. Instruments

An extensive battery of instruments was used to collect information during face to face interviews. Only those relevant to this paper are presented here. The Diagnostic interviews: SCAN – Schedules for Clinical Assessment in Neuropsychiatry - version 1.0 (WHO, 1992) was used to evaluate the 4-week period before interview and the most significant period of earlier psychopathology. In the UK and Germany, SCAN was used with its component algorithm to establish diagnoses of schizophrenia. In the French centres, only the SCAN sections on alcohol and drug use were used, and the Structured Clinical Interview for DSM-IV (Spitzer et al., 1992) was used to identify schizophrenia. In all three countries, SCAN 1.0 algorithms were used to derive diagnoses of comorbid dependence on alcohol and on psychoactive substances other than alcohol. Information on current symptom profile was collected through the 30 item Positive and Negative Syndrome Scale (PANSS) (Norman et al., 1996), with positive, negative and general psychopathology symptoms sub-scores. The Quality of Life Interview (QoLI - Lehman, 1983) provided a global measure of life satisfaction, with a higher score indicating a better overall quality of life. The Calgary Depression Scale for Schizophrenia (CDSS) was used to measure depression (Addington et al., 1990, 1992). The Rating of Medication Influences (ROMI) Scale (Weiden et al., 1994) evaluated adherence to medication, with outputs scoring total "reasons for compliance" and "reasons for non-compliance": higher scores signified, respectively, a greater willingness or reluctance, to take medication. The Clinical Global Impression (CGI) gives a single overall rating of the degree of mental illness on a 7-point