Social class mobility in first episode psychosis and the association with depression, hopelessness and suicidality

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ARTICLE INFO

ABSTRACT

Background: Psychotic disorders are associated with a significant impairment in occupational functioning that can begin in the prodromal phase of the disorder. As a result, individuals with a psychotic disorder may not maintain their social class at birth. The aim of this study was to examine the distribution of the social classes of individuals presenting with a first episode of psychosis (FEP) compared to the general population and to their family of origin. We evaluated whether social drift was associated with depression, hopelessness and suicidality at first presentation.

Methods: All individuals with a FEP presenting to a community mental health service between 1995 and 1999 and to an early intervention service between 2005 and 2011 were included. Diagnosis was established using the Structured Clinical Interview for DSM IV diagnoses and clinical evaluations included the Calgary Depression Scale for Schizophrenia, Beck Hopelessness Scale and the Suicidal Intent Scale.

Results: 330 individuals were included in the study and by the time of presentation, individuals with a FEP were more likely to be represented in the lower social classes compared to the general population. 43% experienced a social drift and this was associated with a diagnosis of a non-affective disorder, co-morbid cannabis abuse and a longer DUP. Individuals who did not experience a social drift had a higher risk of hopelessness.

Conclusions: Social drift is common in psychotic disorders; however, individuals who either maintain their social class or experience upward social class mobility are more susceptible to hopelessness.

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1. Introduction

Psychotic disorders are associated with significant impairment in occupational functioning and decline can begin in the prodromal phase of the disorder (Niendam et al., 2009; Harvey et al., 2012) (Vargas et al., 2014). Individuals with a psychotic disorder are less likely to achieve the same social class as their parents and between 36% and 70% experience a social drift, while a minority experience an improvement in their social class (Marneros et al., 1992; Jones et al., 1993; Aro et al., 1995).

Despite social drift being a common phenomenon in psychotic disorders there is a paucity of knowledge on the demographic and clinical factors that are associated with this decline in social class.

Social class is important because it is one of the most consistent determinants of health at a population level (Blane, 1995). Additionally, a lower social class is associated with a higher chance of unemployment following an admission with a psychotic disorder (Cooper, 1961). However the relationship between social class and prognosis is complex, as higher social class is associated with an increased risk of suicide in psychotic disorders (Siris, 2001). It has been postulated that this is due to the higher expectations placed upon the individual affected by the psychotic disorder, which in turn leads to higher levels of hopelessness, an established risk factor for suicide (Drake et al., 1984; Caldwell and Gottesman, 1990; Kim et al., 2003; Lewine, 2005). This has been referred to as 'the lost potential theory' and it is of clinical relevance because it could identify a sub-group of individuals with a first episode of psychosis (FEP) who are at higher risk of suicide. However, more recently, it has been reported that individuals from a higher social class with minimal lost potential are at higher risk of suicide (Lewine and Shriner, 2009).

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In this study, we firstly aimed to determine whether the social class distribution of individuals presenting with a FEP differed to that of the general population, stratified for age. Secondly, we aimed to describe the social class mobility associated with a FEP and the demographic and clinical characteristics associated with experiencing a social drift. Finally, we aimed to further examine the 'lost potential' theory and examine whether social class mobility was associated with depression, hopelessness and suicidality at presentation.

2. Method

2.1. Participants & settings

We included two cohorts in this study. The first cohort consisted of all individuals who presented with a FEP to an urban community mental health service, catchment size 165,000, between 1995 and 1999 and this cohort has been described elsewhere (Clarke et al., 2006). The second cohort consisted of all individuals with a FEP, aged between 16 and 65, who presented to the DETECT (Dublin East Treatment and Early Care Team) early intervention service between February 2005 and August 2011. The DETECT service covers a catchment area of approximately 390,000.

2.2. Measures

Diagnoses: Structured Clinical Interview for Diagnostic and Statistical Manual of Mental Disorders IV (SCID) (First et al., 2002).

Depressive symptoms: Calgary Depression Scale for Schizophrenia (CDSS) (Addington et al., 1990).

Hopelessness: Beck Hopelessness Scale (BHS) (Beck, 1988).

Suicidality: Suicidal Intent Scale (SIS) (Beck et al., 1975).

The BHS and SIS were only conducted in a sub-group of the total cohort.

Insight: Birchwood Insight Scale (Birchwood et al., 1994).

Duration of untreated psychosis (DUP): Beiser scale (Beiser et al., 1993).

2.3. Sources of information & definitions

Social class at birth was determined from the father's occupation as recorded on the subject's birth certificate and was coded according to the census classification of Ireland (Central Statistics Office of Ireland, 2006). Information relating to the general population was obtained from the census of Ireland.

2.4. Statistical analysis

Data were analysed using PASW Statistics v. 18 and *t*-tests and paired *t*-tests were used to determine if there were differences in means of parametric data. Chi-square tests were performed to determine if there were differences between categorical variables. ANOVA was used to determine if means differed when more than two groups were being investigated. We conducted binary logistic regression with the presence or absence of social drift as the dichotomous dependent variable. As age is a strong potential confounder in social class that is obtained and that the onset of psychotic disorders occur in late adolescences or early adult life, the distributions of social classes were stratified by age.

3. Results

3.1. Participants

A total of 330 individuals were included in the study and 66% ($N =$ 217) were male, 80% ($N =$ 265) were single and 52% ($N =$ 172) had a diagnosis of schizophrenia or schizophreniform disorder. A flow

diagram of the inclusion of participants is presented in Fig. 1. A comparison of participants and non-participants is available in supplementary tables.

3.2. Comparison with the general population

At the time of presentation, individuals with a FEP were more likely to be represented in the lower social classes compared to the general population (46.4% vs 23.9%, $\chi^2 =$ 91.30, $df =$ 1, $p <$ 0.001). This finding remained consistent when the cohorts were stratified by age, as displayed in Table 1.

3.3. Social mobility

As displayed in Table 2, 42.7% ($N =$ 141) experienced a social drift, 32.1% ($N =$ 106) experienced no change in their social class and 25.2% ($N =$ 83) experienced upward social class mobility. Analysis was repeated with the extreme social classes (I & VI) excluded because individuals within these groups could only move in one direction and they are more susceptible to regression to the mean. Within this sub-group, 41.5% ($N =$ 112) experienced a social drift and 27.8% ($N =$ 75) experienced upward social class mobility.

3.4. Demographic and clinical characteristics associated with social class mobility

Individuals with a social drift were more likely to have a diagnosis of a non-affective disorder (85.8% vs 74.1%, $\chi^2 =$ 6.73, $df =$ 1, $p =$ 0.009), a co-morbid diagnosis of cannabis abuse or dependence (28.4% vs 18.5%, $\chi^2 =$ 4.46, $df =$ 1, $p =$ 0.04) and a longer DUP (4 months vs 2 months, $Z = -$2.94, $p =$ 0.003). There was no relationship between alcohol abuse and social drift.

3.4.1. Multivariate analysis

Diagnosis was the strongest predictor of social drift, with individuals diagnosed with a non-affective psychotic disorder more likely to experience a social drift by a factor of 2.26 (95% C.I. 1.02 to 5.05, $p =$ 0.05).

3.5. Social class mobility and depressive symptoms, hopelessness and suicidality

At presentation, 11.9% ($N =$ 12) with a social drift had depressive symptoms compared to 20.7% ($N =$ 29) without a social drift; however this trend was not statistically significant ($\chi^2 =$ 3.24, $df =$ 1, $p =$ 0.07). A social drift was associated with the presence of moderate or severe hopelessness at the time of presentation (29.7% vs 8.9%, RR = 1.58 95% C.I. 1.20–2.08, $\chi^2 =$ 6.87, $df =$ 1, $p =$ 0.009).

A total of 9.7% ($N =$ 18) attempted suicide prior to presentation and of these, 69.2% ($N =$ 36) were of low lethal intent, 11.5% ($N =$ 6) were of medium lethal intent and 19.2% ($n =$ 10) were of high lethal intent. There was no difference in the presence or the severity of suicide attempts in those with a social drift and those in the non-drift group (10.4% vs 9.3%, $\chi^2 =$ 0.07, $df =$ 1, $p =$ 0.80) (26.9% vs 11.5%, $\chi^2 =$ 1.98, $df =$ 1, $p =$ 0.16).

It was postulated that insight could be a potential confounder in the relationship between social class mobility and the level of hopelessness, depression and suicidality. The level of insight did not differ according to social class mobility ($F =$ 0.98, $df =$ 2, $p =$ 0.38) or hopelessness (7.4 vs 7.3, t = 0.20, $df =$ 103, $p =$ 0.84). However, individuals with depression had a higher level of insight (8.0 vs 7.4, t = 1.11, $df =$ 192, $p =$ 0.02), as did those who attempted suicide (8.6 vs 7.1, t = 2.06, $df =$ 140, $p =$ 0.04).