



Letter to the Editor

Residential social drift in the two years following a first episode of psychosis



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1. Introduction

The associations between the incidence and prevalence of psychotic disorders and neighbourhood social deprivation is well established (Kirkbride et al., 2014; O'Donoghue et al., 2016; Pignon et al., 2016). However, the explanation of this association is not clear; and there are two leading theories, namely the social causation theory and social drift (or social selection) theory (Hudson, 2005; March et al., 2008), that are not mutually exclusive and may act in unison.

The onset of psychotic disorders typically occurs in a period when the majority of young people may be living in the family home and may move out (Girolamo et al., 2012). We recently identified that young people presenting with a first episode of psychosis (FEP) were more likely to be residing in areas of higher social deprivation (Eaton et al., 2019). The majority of these young people were living with their parents, suggesting that social drift would not explain these findings. Therefore, exclusively examining the residential mobility within a young population, aged 15 to 24, following the development of a FEP could deliver insights into the extent of social drift associated with psychotic disorders.

This study aimed to determine the prevalence of residential mobility, specifically social drift amongst a cohort of young people with a FEP followed-up two years after the initial presentation. Secondly, this study aimed to determine sociodemographic and clinical predictors of residential social drift.

2. Methods

2.1. Settings and participants

The Early Psychosis Prevention and Intervention Centre (EPPIC) is an Early intervention in psychosis service within Orygen Youth Health. It covers a catchment area of 59 postcodes within the Australian state of Victoria (Northern and Western Melbourne). It is a disadvantaged area, with high levels of social deprivation and social fragmentation (Australian Bureau of Statistics, 2013).

All young people with a FEP aged 15 to 24 years-old, living in the catchment area and attending the EPPIC service between 2011 and 2013, were included in the study (Eaton et al., 2019). FEP was defined as full threshold psychotic symptoms daily for at least one week. All psychotic disorders were included, including drug-induced psychotic disorder. Diagnoses were grouped according to schizophrenia spectrum

disorders (schizophrenia, schizophreniform disorder and schizoaffective disorder), affective psychotic disorders (bipolar affective disorder and depression with psychosis) and other psychotic disorders (drug induced psychosis, psychosis NOS, delusional and brief psychotic disorder).

2.2. Definition of residential social drift

To define the residential social drift phenomenon, deciles of the Index of Relative Socio-Economic Disadvantage (IRSD) score was used. It is a general socio-economic index that summarises a range of information (levels of income and qualifications, unemployment rate, rate of disability, etc.) of households. IRSD are defined for each state, to compare the different areas at a state level (Australian Bureau of Statistics, 2013). The residential social drift phenomenon was defined by a move within a place (defined by a postcode) with a lower decile disadvantage score than at the time of presentation. To compare the postcodes at the time of presentation and at discharge, only movement within the state of Victoria was included; people who moved outside Victoria were excluded from analyses.

2.3. Statistical analyses

Cox regression analysis, using SPSS v25, determined hazard ratios (HRs) for sociodemographic and clinical variables with social drift as the outcome variable. Individuals residing in the neighbourhoods of highest social deprivation would not have been able to experience a 'social drift' and therefore the analysis was repeated with this group excluded.

3. Results

3.1. Participants

A total of 527 young people presented with a FEP during the study period, and follow-up information was available for 97.9% (N = 516). At follow-up, six people were homeless, and five had been incarcerated. Thirty-four people had moved outside Victoria state. Therefore, 471 young people remained in Victoria (mean age: 19.5 years; 60.3% male). Of the cohort, 22.7% were first-generation migrants to Australia. At the time of presentation, 47.9% had a diagnosis of a schizophrenia spectrum disorder, and 27.4% had an affective psychotic disorder. Substance use was common in the cohort, with 58.4% having a history of cannabis use, and 24.0% with a history of amphetamine use. The median duration of untreated psychosis (DUP) was 8.0 weeks (mean: 27.1 weeks).

3.2. Residential social drift

The median follow-up time was 97 weeks (IQR 71–107) and at the time of discharge, 30.6% (N = 144) had moved residence to a different

postcode within Victoria. 4.2% (N = 20) moved to other areas of the same level of social deprivation, while 12.5% (N = 59) moved to more deprived areas (social drift) and 13.8% (N = 65) moved to less deprived areas.

3.3. Sociodemographic and clinical predictors of residential social drift

Young people who experienced a social drift were more likely to be married (10.2% vs. 2.4%, HR = 4.79, 95% CI = 2.04–11.27, $p < 0.001$), although the vast majority were single. Young people who experienced a social drift were more likely to be migrants (32.2% vs. 21.4%, HR = 1.80, 95% CI = 1.04–3.12, $p = 0.04$). Furthermore, 32.2% of those who experienced a social drift had a diagnosis of a schizophrenia-spectrum disorder, compared to 45.6% who did not experience social drift (HR = 0.51, 95% CI = 0.30–0.89, $p = 0.02$). The following factors were not associated with a social drift: age, sex, employment status at presentation, concurrent substance use and DUP (Table 1). The three factors that were associated with social drift were entered in a multivariate Cox regression model and all remained significant. The findings did not vary when the analysis was repeated with the cases living in the most deprived neighbourhoods at baseline excluded.

4. Discussion

This study found that only a small minority experienced a residential social drift in the two years following the initial presentation with a FEP. Migrants were more likely to experience a social drift, while those with a diagnosis of a schizophrenia spectrum disorder were less likely to experience social drift.

This proportion of people experiencing residential mobility in the period following the onset of a first episode of psychosis has ranged from 15% to 30% (Ngamini Ngui et al., 2013; Tulloch et al., 2011). One of the theories as to why migrants have an increased risk of developing a psychotic disorder is that they are more likely to be residing in more deprived areas (i.e. social causation hypothesis) (Castillejos et al., 2018). It would therefore appear that they are more vulnerable group to experience residential downward drift following the FEP, thereby exposing them to further disadvantage.

The young people included in this study were more likely to be residing in areas of higher social deprivation at the time of presentation (Eaton et al., 2019) and this study has demonstrated that approximately 12% of the total cohort experienced residential social drift. This indicates that the social causation theory and social drift theory likely work in unison, however social causation may be more pertinent for younger people.

Table 1
Sociodemographic and clinical characteristics of the subjects according to social residential drift status.

	Drift (N = 59) Mean (\pm SD)	Non-drift (N = 412) Mean (\pm SD)	Comparisons of drift vs. non-drift t-test	p
<i>Sociodemographic characteristics</i>				
Age	19.7 (3.1)	19.4 (2.9)	t = -0.68, df = 469 HR (95% CI)	0.50
Sex	% (N)	% (N)		
Males	62.7 (37)	60.0 (247)	0.88 (0.52–1.51)	0.65
Females	37.3 (22)	40.0 (165)		
Marital status ^a				
Single	88.1 (52)	96.1 (396)	4.79 (2.04–11.27)	<0.001
Married/de-facto	10.2 (6)	2.4 (10)		
Separated/divorced	1.7 (1)	0.7 (3)		
Employment status				
Employed or student	57.6 (34)	63.3 (261)	0.68 (0.40–1.16)	0.16
Unemployed/disability support pension	42.4 (25)	36.7 (151)		
Migrant status				
Born in Australia	67.8 (40)	78.6 (324)	1.80 (1.04–3.12)	0.04
First generation migrant	32.2 (19)	21.4 (88)		
<i>Clinical characteristics</i>				
Diagnosis				
Schizophrenia spectrum disorders				
Schizophrenia	13.6 (8)	14.8 (61)	0.51 (0.30–0.89)	0.02
Schizophreniform disorder	11.9 (7)	26.5 (109)		
Schizoaffective disorder	6.8 (4)	4.4 (18)		
Affective psychotic disorders				
Bipolar affective disorder with psychosis	10.2 (6)	18.2 (75)	0.71 (0.37–1.37)	0.31
Depression with psychosis	15.3 (9)	9.5 (39)		
Other psychotic disorders				
Psychosis NOS	20.3 (12)	12.4 (51)		
Delusional disorder	0 (0)	1.0 (4)		
Brief psychotic disorder	5.1 (3)	2.4 (10)		
Drug-induced psychosis	11.9 (7)	9.7 (40)		
Unspecified psychotic disorder	5.1 (3)	1.2 (5)		
Concurrent substance abuse				
Cannabis abuse present	45.8 (27)	52.4 (216)	0.75 (0.44–1.26)	0.27
Amphetamine abuse present	22.0 (13)	24.3 (100)	0.71 (0.38–1.35)	0.30
Alcohol abuse present	16.9 (10)	20.1 (83)	0.63 (0.30–1.29)	0.21
Duration of untreated psychosis				
Median (IQR)	8.0 (2.0–52.0)	8.0 (2.0–26.0)	1.00 (0.99–1.01)	0.62
DUP – continuous variable	% (N)	% (N)		
DUP < 6 months	70.4 (38)	74.3 (272)	0.88 (0.48–1.59)	0.66
DUP > 6 months	29.6 (16)	25.7 (94)		

IQR = interquartile range.

^a The separated/divorced group were not included in the Cox regression as the numbers for this group were only 1 in each group.

Authors' contributions

BP, SE, and BO participated in the conception and design of the study; SE, PM, and BO participated in the acquisition of data; BO had full access to all of the data in the study and takes responsibility for the integrity of the data and the accuracy of the data analysis; BO performed the analyses; BP, SE and BO, wrote the first draft of the manuscript. All authors participated in the writing and revision of the successive drafts of the manuscript and approved the final version.

Declaration of Competing Interest

The authors have declared that there are no conflicts of interest in relation to the subject of this study.

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