Predictors of change in social networks, support and satisfaction following a first episode psychosis: A cohort study

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ABSTRACT

Background: Diminished social networks are common in psychosis but few studies have measured these comprehensively and prospectively to determine how networks and support evolve during the early phase. There is little information regarding perceived support in the early phase of illness. The aim of this study was to describe social support, networks and perceived satisfaction, explore the clinical correlates of these outcomes and examine whether phases of untreated psychosis are linked with social network variables to determine potential opportunities for intervention.

Methods: During the study period, we assessed 222 people with first-episode psychosis at entry into treatment using valid and reliable measures of diagnosis, positive and negative symptoms, periods of untreated psychosis and prodrome and premorbid adjustment. For follow-up we contacted participants to conduct a second assessment (n = 158). There were 97 people who participated which represented 61% of those eligible. Social network and support information obtained at both time points included the number of friends, self-reported satisfaction with support and social network size and clinician's evaluation of the degree of support received through networks. Mixed effects modelling determined the contribution of potential explanatory variables to social support measured.

Results: A number of clinical variables were linked with social networks, support and perceived support and satisfaction. The size of networks did not change over time but those with no friends and duration of untreated psychosis was significantly longer for those with no friends at entry into treatment (n = 129, Median = 24.5 mths, IQR = 7.25–69.25; Mann-Whitney U = 11.78, p = 0.008). Social support at baseline and at one year was predicted by homelessness (t = −2.98, p = 0.001, CI −4.74 to −1.21), duration of untreated psychosis (t = −0.86, p = 0.031, CI −1.65 to −0.08) and premorbid adjustment (t = −2.26, p = 0.017, CI −4.11 to −0.42). Social support improved over time but the duration of untreated psychosis was not linked with the rate of improvement in this outcome.

Conclusions: Improved social support could indicate greater reliance on social support or becoming more adept at mobilising resources to meet social needs. Particularly vulnerable groups with very long duration of untreated psychosis confirm the need for earlier intervention or targeted social network interventions to preserve social connectedness.

What is already known about this topic?

- People with first episode psychosis typically have smaller social networks than healthy controls.

- Reduced social networks and support seem to pre-date the onset of psychotic illness.

- There is evidence that longer periods of untreated psychosis carry a greater risk of being socially withdrawn and having a diminishing network size.

  What this paper adds

- Social support delivered and participant's views of their networks and the degree of assistance received increases during the first year of treatment.
- The size of social networks do not differ between entry into treatment and one year later.
- Longer untreated psychosis is associated with having no friends at entry into treatment and predicts social support alongside pre-morbid adjustment and being homeless.

1. Introduction

Social networks and support are increasingly being viewed as relevant outcomes for service-users with first-episode psychosis (Gayer-Anderson and Morgan, 2013). This development is at least partially driven by widening parameters of outcome and an increasing interest responding to service-users concerns and priorities (Mcgorry et al., 2008). Social support and the quality of close relationships are both linked with illness course since increased support at the start of treatment is connected to a reduced risk of relapse after 3 years (Norman et al., 2005) and better social and occupational functioning later in the course of illness (Erickson et al., 1998). Preserved social networks and receiving support through these is linked with reduced risk of re-hospitalisation, increased service use and improved quality of life (Becker et al., 1998, 1997). The influence of social support is also implicit in robust evidence that family and caregiver interventions can reduce the risk of relapse, rehospitalisation (Pitschel-Walz et al., 2001) and enhance social functioning (Pharoah et al., 2006) via reduced expression of negative and critical comments.

Diminished social networks are common in psychosis and fragmented social circles are apparent at first contact with services (Palumbo et al., 2015; Gayer-Anderson and Morgan, 2013; Horan et al., 2006). Several differences in social networks are seen compared to the general population including maintaining fewer relationships (Erickson et al., 1989; Macdonald et al., 2000) and interacting with these contacts on fewer occasions (Reininghaus et al., 2008; Kalla et al., 2002). The average composition of social networks is not clear but evidence points to a diminishing number of confidants (Gayer-Anderson and Morgan, 2013). The number of family members within networks is similar between people with early psychosis and healthy controls (Erickson et al., 1989) but due to diminishing friends in networks the proportion is comparatively higher meaning the social networks of people with psychosis more often comprise a majority of kin relationships.

In some cases loss of friendship pre-dates the onset of active psychotic symptoms and even prior to the first subtle signs that illness is emerging but in some deteriorating social networks develop during periods of untreated psychosis or weaken further as the illness progresses (Devylder and Gearing, 2013; Gayer-Anderson and Morgan, 2013). Several studies have demonstrated the link between longer duration of untreated psychosis and diminished network size (Thorup et al., 2006; Jeppesen et al., 2008; Reininghaus et al., 2008; Drake et al., 2000) at entry into treatment and after one and after one and two years of intensive treatment (Jeppesen et al., 2008; Thorup et al., 2006). However, much of what is known about how social networks evolve after the onset of psychosis has been examined using correlational tests rather than using more robust statistical tests in the presence of known confounders. Importantly, research tends to consider the beneficial aspects of social networks assuming that larger networks are more favourable, however, merely quantifying relationships does not account for the function or desirability perceived by the service-user. Perceived social support predicts mental health outcomes, in

particular depression (Santini et al., 2015; Kaiser et al., 2006) and during the first-episode of psychosis, whether people perceive adequate support is also linked with depression (Sundermann et al., 2014). Satisfaction with social networks and support is generally lower than when measured in controls (Veling et al., 2010) so on this basis, social support received and satisfaction perceived by service-users are both important measures of outcome.

The overall aim was to assess whether there was a relationship between longer duration of untreated psychosis and measures of social networks support and satisfaction in the presence of other possible explanatory variables. We hypothesised that people with longer duration of untreated psychosis were less likely to experience an improvement in their social networks following presentation due to the critical period hypothesis which suggests a window of opportunity beyond which social functioning is less likely to be recovered hence impairment in social connections can become long-standing and less amenable to change. In addition, describing the social network size and support received by people with first episode psychosis at presentation and one year after diagnosis and treatment and examining clinical correlates will help identify the social needs of people with psychosis. This can potentially aid in identifying ways of preserving social connectedness and maximising the support available.

Specific objectives included calculating whether social network size continues to diminish after the initiation of treatment, measuring the degree of support received and the quality of relationship assessing associations with clinical variables. Potential opportunities for identifying the timing and target outcome of any interventions may become apparent with these analyses. In doing so we address a number of methodological limitations of previous studies by reducing the prospect of selection bias using a sample that is as representative as currently conceivable, countering information bias by using a validated instrument to measure social support and reduce the possibility of confounding by developing a mixed model including known correlates of satisfaction, functioning and support (Gayer-Anderson and Morgan, 2013).

2. Methods

2.1. Participants

This study comprised a discrete aspect of a larger prospective cohort study to determine the impact of untreated psychosis on outcome in first episode psychosis (Renwick et al., 2015b; Lyne et al., 2015). Between February 2009 and April 2012 we assessed individuals with first-episode psychosis comprising both in-patient and community admissions in a geographically defined catchment area (pop. 390,000 approx.) in the Republic of Ireland. Diagnostic assessments confirmed the presence of psychosis at baseline. Emphasis on over-referral encouraged completeness in the sample and approximately 50% screened did not satisfy the inclusion criteria (O'donoghue et al., 2012). This consisted of having a psychotic disorder that had not been previously treated with antipsychotic medication (no more than 30 days prior treatment with antipsychotic medication was considered an adequate trial), satisfying admission criteria for adult mental health services, being aged between 17 and 65 and being permanently resident within the catchment area. Participants with known learning difficulties (IQ <70) or psychosis deemed to be caused by a general medical condition were also excluded. 47 participants disengaged prior to completing the initial screen (10% of overall referrals). The remaining sample comprised 222 participants.

2.2. Measures

Diagnoses were established using the Structured Clinical Interview for Diagnostic and Statistical Manual-IV (American Psychiatric Association, 2000) comprising both affective and non-affective