Brief Report

Distress in relation to attenuated psychotic symptoms in the ultra-high-risk population is not associated with increased risk of psychotic disorder

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Abstract

Aim: The ‘ultra-high-risk’ criteria identify a clinical population at substantially increased risk for progressing to schizophrenia and other psychotic disorders. Although a number of clinical variables predictive of transition to psychotic disorder have been identified within this population, the predictive value of the level of distress associated with attenuated psychotic symptoms has not yet been examined. This was the aim of the present study.

Method: The level of distress (0–100) associated with attenuated psychotic symptoms was recorded for 70 ultra-high-risk (UHR) patients using the Comprehensive Assessment of At-Risk Mental State (CAARMS). Transition to psychosis was assessed over a 16-month follow-up period.

Results: Of the 70 UHR patients, 15 transitioned to psychosis (21.4%). Of the four CAARMS subscales measuring attenuated positive symptoms, Perceptual Abnormalities was rated as the most distressing. There were no differences in CAARMS scales rated as the most distressing between those who transitioned to psychosis and those who did not. There was also no association between higher levels of distress associated with attenuated psychotic symptoms and transition to psychosis.

Conclusion: Although the findings require replication, they indicate that the degree of distress associated with attenuated psychotic symptoms should not be used as a criterion for enriching UHR samples for risk of frank psychotic disorder.

Key words: clinical distress, prodrome, psychosis, ultra-high-risk.

INTRODUCTION

The detection of young people who are at heightened risk of developing psychotic disorders has significantly improved over the last two decades. 1 This has been facilitated by the introduction of the ‘ultra-high-risk’ (UHR; otherwise known as ‘clinical high-risk’ or ‘psychosis high-risk’) criteria. These criteria are based on a combination of state and trait risk factors, most prominently attenuated positive psychotic symptoms, in addition to help-seeking. A meta-analysis of rates of transition to psychotic disorder in the UHR population found a 22% transition rate after 1 year, increasing to 36% after 3 years. 2 Our long-term follow-up study found a 34.9% transition rate over a 2.4- to 14.9-year follow-up period. 3 These rates are substantially higher than those seen in other clinical populations and in the general population.

A challenge has been to identify additional clinical and other predictors (such as neurocognitive, neurobiological and genetic variables) within the UHR population that further enhance prediction of outcome. The clinical variables that have been identified as predicting transition to psychosis in UHR samples include long duration of symptoms prior to treatment, 4, 5 subthreshold positive symptoms, 4, 6, 7, 8 poor functioning, 6–8 basic and negative
symptoms, depression, schizotypal disorder, sleep disturbances, substance abuse and genetic risk with functional decline. However, an aspect of this clinical population that has not yet been addressed is the level of distress associated with attenuated psychotic symptoms, and whether increased distress in relation to these symptoms is associated with increased risk of transition. This issue is significant for several reasons. Firstly, most UHR patients (approximately 80%) enter clinics based upon their attenuated psychotic symptoms rather than one of the other risk groups (Brief Limited Intermittent Psychotic Symptoms [BLIPS] or trait vulnerability). Therefore, improving our understanding of the significance of distress associated with these symptoms is important for our understanding of the UHR population generally. Secondly, if higher level of distress associated with attenuated psychotic symptoms corresponds to increased risk for transition to psychotic disorder, then this may assist with ‘narrowing down’ on UHR patients most likely to develop psychotic disorder. This is a salient issue given the decreasing transition rates in more recent UHR cohorts. Finally, the description of ‘Attenuated Psychosis Syndrome’ in Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-V), modelled on the UHR criteria, assumes a clinically significant level of distress associated with the attenuated psychotic symptoms (‘Symptom(s) is sufficiently distressing and disabling to the individual to warrant clinical attention’). However, this has not been established in UHR cohorts, who are often in fact referred to clinical services for other non-psychotic complaints.

In this study, we aimed to examine whether the level of distress associated with attenuated psychotic symptoms predicts transition to psychotic disorder in the UHR population.

METHOD

Setting

Orygen Youth Health clinical program (OYH-CP) is a public mental health service for young people aged between 15 and 24 years in the catchment area of western and northwest Melbourne, Australia. The clinical service has four components: EPPIC (Early Psychosis Prevention and Intervention Centre, a first-episode psychosis service), PACE (Personal Assessment and Crisis Evaluation, a UHR clinic), Youth Mood Clinic (a mood disorder clinic) and HYPE (Helping Young People Early, a clinic for borderline personality pathology). Referrals to OYH-CP are received from a range of sources, including school counsellors, general practitioners, other health-care providers, family, friends and young people themselves. Individuals referred to OYH-CP are assessed at a central triage point, which directs patients to the appropriate clinic. Individuals referred to PACE from triage then undergo an entry assessment, at which stage the Comprehensive Assessment of At-Risk Mental States (CAARMS) is administered to assess UHR status. The CAARMS is administered by trained clinicians – either psychiatrists, psychologists or other allied health staff.

Participants

The recruitment period was 20/5/2006–21/6/2009. Over this period, the PACE clinic received 340 referrals, of which 311 were accepted into the clinic. Of this cohort, CAARMS and distress data were available on 70 cases. Inclusion criteria were as follows: being aged between 15 and 24 years, living in the OYH catchment area and meeting UHR criteria. Exclusion criteria were as follows: previous diagnosis of a psychotic disorder, known organic cause of symptoms or if relevant data were not available.

Assessments

The CAARMS consists of four attenuated positive psychotic symptoms subscales: Unusual Thought Content (UTC), Non-Bizarre Ideas (NBI), Perceptual Abnormalities (PA) and Disorganised Speech (DS). Each of these are rated on a 0–6 scale for intensity and frequency. In addition to this rating, participants were also rated on how distressed they were by these attenuated psychotic symptoms. This was established in the course of the CAARMS semistructured interview. Distress was measured using a Likert scale from 0 (not at all distressed) to 100 (extremely distressed). If the participant rated on multiple attenuated psychotic symptoms, the highest distress rating was used in data analysis. Baseline functioning was assessed using the Global Assessment of Functioning (GAF). Participants were treated at the PACE clinic for approximately 1 year. They were regularly monitored by their treating psychiatrist and case manager for onset of psychotic disorder. This is defined as per previous research as clear full-threshold positive psychotic symptoms for longer than 1 week.

Data analysis

Statistical analyses were conducted using the statistical package IBM SPSS for Windows, version 22.0
Distress in UHR

RESULT

Baseline characteristics

Sample characteristics are presented in Table 1. There were no differences in gender or age between the cohort and PACE patients who did not have the required data available (n = 241).

Transition to psychosis

Transition to psychosis data were available for the full cohort. Fourteen participants transitioned to psychosis within 12 months, and an additional individual transitioned within 16 months, yielding an overall transition rate of 21.4%.

Distress in relation to transition

Cox regression, adjusting for GAF score, indicated that level of distress in relation to attenuated psychotic symptoms did not predict transition to psychosis (beta = −0.002, SE = 0.013, P = 0.904).

DISCUSSION

To the best of our knowledge, this is the first study to address the level of distress in relation to attenuated psychotic symptoms and risk for transition to psychosis in a UHR sample. There was no association between level of distress in relation to attenuated psychotic symptoms and transition to psychosis. Perceptual abnormalities were the most distressing, with more frequent perceptual abnormalities correlating with higher distress, and disorganized speech the least distressing attenuated psychotic symptom. There was no relationship between higher levels of distress in relation to particular types of attenuated psychotic symptoms and transition to psychosis.

These results provide preliminary evidence that distress in relation to attenuated psychotic symptoms is not a good indicator of risk for subsequent psychotic disorder in UHR patients. This suggests that help-seeking UHR young people who are not significantly distressed by their attenuated psychotic symptoms are just as likely to develop...
first‐episode psychosis as those who are significantly distressed by these symptoms and therefore should receive clinical care and be recruited to UHR research studies.

Although this issue has not previously been examined in UHR cohorts, the results are somewhat at odds with data from a large Dutch general population study. In the NEMISIS study, 8% of the cohort who had an incident psychotic experience had a subclinical outcome 2 years later, and 8% had a psychotic clinical outcome 2 years later. Emotional appraisal and degree of intrusiveness of the psychotic experience, which may index level of distress, were strong modifiers of the clinical outcome, but not the subclinical outcome. The current data are also not consistent with cognitive models of psychosis that posit that interpreting anomalous perceptual or cognitive experiences in an anxiety or distress‐provoking manner may exacerbate psychotic symptoms.

Recent evidence indicates that only 52% of UHR patients find their attenuated psychotic symptoms distressing, with social and functioning difficulties and depressive symptoms being the most prominent sources of distress in this population. Thus, the distress and help‐seeking in this population is attributable to a wide range of reasons rather than being solely attributable to attenuated psychotic symptoms. This suggests that the requirement in the DSM‐V Attenuated Psychosis Syndrome that the attenuated psychotic symptoms are 'sufficiently distressing and disabling to warrant clinical attention' would identify a significantly different group than that which is currently recruited in UHR studies. The finding that a higher level of distress associated with attenuated psychotic symptoms is not associated with a higher risk for psychosis also suggests that this criterion for Attenuated Psychosis Syndrome would not identify a group at enriched risk for psychotic disorder.

The current study suffers from a number of limitations. The sample with available data was a subset of the overall sample of UHR patients seen over the recruitment period. Although the demographic data indicate that this subset was representative of the age and gender of the overall pool of patients, it is possible that the larger pool of patients may have differed on other variables not captured, possibly resulting in a selection bias. Secondly, the type of treatment that the UHR patients received was not taken into account in analysis. The particular type of treatment, for example, cognitive‐behaviour therapy directed towards reducing distress associated with attenuated psychotic symptoms, may have moderated the risk for transition to psychotic disorder. Finally, distress was measured as a single ‘snapshot’ at entry to the clinic. This measurement may have been influenced by factors such as self‐stigma, shame associated with symptoms, patients’ coping style, sufficient rapport and engagement not yet established with the clinical team, and so on. Future work may wish to adopt a more thorough approach to measuring distress associated with symptoms.

**CONCLUSION**

These findings indicate that perceptual abnormalities are the attenuated positive psychotic symptoms most distressing to UHR patients at entry. Higher levels of distress associated with symptoms is not associated with transition to psychotic disorder over the subsequent 1.5 years. Although the findings require replication, they indicate that the degree of distress associated with attenuated psychotic symptoms should not be used as a criterion for enriching UHR samples for risk of frank psychotic disorder.

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