



# The effect of comorbid depression on facial and prosody emotion recognition in first-episode schizophrenia spectrum



Sarah E. Herniman<sup>a,b,c,\*</sup>, Kelly A. Allott<sup>a,b</sup>, Eóin Killackey<sup>a,b</sup>, Robert Hester<sup>c</sup>, Sue M. Cotton<sup>a,b</sup>

<sup>a</sup> Orygen, The National Centre of Excellence in Youth Mental Health, Australia

<sup>b</sup> Centre for Youth Mental Health, University of Melbourne, Australia

<sup>c</sup> Melbourne School of Psychological Sciences, University of Melbourne, Australia

## ARTICLE INFO

### Keywords:

Affective disorders  
Unipolar depression  
Schizophrenia and psychosis  
Adolescent psychiatry  
Cognition

## ABSTRACT

**Background:** Comorbid depression is common in first-episode schizophrenia spectrum (FES) disorders. Both depression and FES are associated with significant deficits in facial and prosody emotion recognition performance. However, it remains unclear whether people with FES and comorbid depression, compared to those without comorbid depression, have overall poorer emotion recognition, or instead, a different pattern of emotion recognition deficits. The aim of this study was to compare facial and prosody emotion recognition performance between those with and without comorbid depression in FES.

**Methods:** This study involved secondary analysis of baseline data from a randomized controlled trial of vocational intervention for young people with first-episode psychosis ( $N=82$ ; age range: 15–25 years).

**Results:** Those with comorbid depression ( $n=24$ ) had more accurate recognition of sadness in faces compared to those without comorbid depression. Severity of depressive symptoms was also associated with more accurate recognition of sadness in faces. Such results did not recur for prosody emotion recognition.

**Limitations:** In addition to the cross-sectional design, limitations of this study include the absence of facial and prosodic recognition of neutral emotions.

**Conclusions:** Findings indicate a mood congruent negative bias in facial emotion recognition in those with comorbid depression and FES, and provide support for cognitive theories of depression that emphasise the role of such biases in the development and maintenance of depression. Longitudinal research is needed to determine whether mood-congruent negative biases are implicated in the development and maintenance of depression in FES, or whether such biases are simply markers of depressed state.

## 1. Introduction

Schizophrenia spectrum disorders (i.e., schizophrenia, schizophreniform disorder, brief psychotic disorder, and delusional disorder) are the most burdensome psychiatric illnesses worldwide (Rossler et al., 2005). Within the traditional Kraepelinian framework, schizophrenia spectrum disorders are classified as ‘non-affective’ (Uptegrove et al., 2010). More recently, however, comorbid depressive pathology (i.e., symptoms, caseness, full-threshold depressive disorder) has been reported in up to 80% of those with ‘non-affective’ schizophrenia spectrum disorders and therefore, contribute to the burden of illness (Uptegrove et al., 2010). Research efforts focusing on depressive pathology in first-episode schizophrenia spectrum (FES) are therefore critical, as maximal levels of disability are reached within five years of illness onset (Birchwood et al., 1998).

Comorbid depressive pathology in FES usually appears during the

prodrome (Koreen et al., 1993) or first psychotic episode (Birchwood et al., 2000; Uptegrove et al., 2010), and follows the course of positive psychotic symptoms (Koreen et al., 1993; Oosthuizen et al., 2006; Uptegrove et al., 2010). Thus, depressive pathology may be an intrinsic feature of FES (Birchwood et al., 2000). Additionally, depressive pathology may emerge without concomitant psychotic symptoms several months after an acute psychotic episode (termed post-psychotic depression), which is believed to result from a psychological reaction, namely negative personal appraisals of shame, loss, and entrapment, of having experienced FES (Birchwood et al., 2000; Uptegrove et al., 2014). Depressive pathology in FES is associated with serious adverse consequences, including increased risk for poorer quality of life (Cotton et al., 2010), future psychotic relapse (Subotnik et al., 1997), self-harm (Uptegrove et al., 2010), and suicide (Nordentoft et al., 2002).

Despite its high prevalence and associated adverse consequences, depressive pathology is often overlooked in FES due to the emphasis on

\* Correspondence to: Orygen, The National Centre of Excellence in Youth Mental Health, University of Melbourne, 35 Poplar Road, Parkville, VIC 3052, Australia.  
E-mail address: [sarah.herniman@unimelb.edu.au](mailto:sarah.herniman@unimelb.edu.au) (S.E. Herniman).

treating positive and negative psychotic symptoms, and to uncertainty surrounding its nosological status (Cotton et al., 2012; Peralta and Cuesta, 2009). Better recognition and treatment of depressive pathology may enable better outcomes in FES (Bustillo et al., 2001; Uptegrove et al., 2016).

One factor requiring more attention in relation to depressive pathology in FES is facial and prosody (voice) emotion recognition. Emotion recognition is the ability to accurately identify the emotions of others, and is integral to successful social interaction (Edwards et al., 2001). Indeed, emotion recognition is found to be a robust predictor of functional outcome in schizophrenia spectrum disorders (Addington et al., 2006; Fett et al., 2011). Facial and prosody emotion recognition deficits are observed in both depression and FES samples, but the specific emotions affected are different (Amminger et al., 2012; Dalili et al., 2015; Edwards et al., 2001). Individuals with FES show facial and prosody emotion recognition deficits for negative emotions such as sadness and fear (Amminger et al., 2012; Edwards et al., 2001), whereas individuals with depression show a mood congruent negative bias; that is, they experience deficits in recognising all emotions except sadness (Bourke et al., 2010; Dalili et al., 2015). Based on these contrasting emotion recognition profiles, those with comorbid depression may have more accurate recognition of facial and prosody sadness than those without comorbid depression in FES. However, to our knowledge, only depressive symptoms – and not full-threshold depression – have been examined in relation to emotion recognition in those with psychotic disorders, and such studies have reported mixed findings (Bediou et al., 2007; Comparelli et al., 2014; Hofer et al., 2009; Kohler et al., 2000).

Three studies found that facial emotion recognition performance was not correlated with severity of depressive symptoms in psychotic disorders (Bediou et al., 2007; Comparelli et al., 2014; Kohler et al., 2000). However, the participants in Bediou et al. (2007)'s study were exhibiting low levels of depressive symptomatology, and the severity of depressive symptoms among the other two samples were not reported (Comparelli et al., 2014; Kohler et al., 2000), making it difficult to interpret the findings. Such findings tentatively suggest that low levels of depressive symptoms may not impact emotion recognition performance in psychotic disorders, indicating a specific need to investigate full-threshold comorbid depression in relation to emotion recognition. In contrast to these three studies, Hofer et al. (2009) found that depressive/anxiety symptoms, as measured by the Positive and Negative Symptom Scale (PANSS), were positively correlated with fearful facial recognition in schizophrenia. However, given that those with depression experience a bias towards sadness (Bourke et al., 2010; Dalili et al., 2015), such findings were most likely driven by symptoms of anxiety rather than depression. It is therefore important to isolate symptom dimensions in such analyses to elucidate their unique effects on emotion recognition performance. Furthermore, no study has examined prosody emotion recognition in those with both depression and FES. Thus, it remains unclear whether people with FES and comorbid depression, compared to those without comorbid depression, have overall poorer facial and prosody emotion recognition, or instead, a different pattern of emotion recognition deficits. Understanding such relationships would provide important implications for therapeutic interventions and functioning.

The aim of this study was to compare the facial and prosody emotion recognition profile between those with and without comorbid depression in FES. It was hypothesised that, while controlling for the potentially confounding variables of premorbid IQ, and positive and negative symptoms, those with comorbid depression would have significantly more accurate recognition of facial and prosody sadness compared to those without comorbid depression in those with FES. The relationship between severity of depressive symptoms and facial and prosody emotion recognition was also assessed.

## 2. Methods

### 2.1. Participants

This study involved secondary analysis of baseline data from a single blind, randomised controlled trial of vocational intervention for young people (aged 15–25 years) with first-episode psychosis (see Killackey et al. (2013) for full description of trial). Participants were clients of the Early Psychosis Prevention and Intervention Centre (EPPIC), a program at Orygen Youth Health (OYH), Melbourne, Australia. Inclusion criteria for the parent study were: fulfillment of criteria for a psychotic disorder (Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition–Text Revision [DSM-IV-TR]) (American Psychiatric Association, 2000); a minimum of six months remaining as a client of EPPIC; and an expressed interest for vocational recovery (e.g., return to school or work). Exclusion criteria included: intellectual disability and/or florid psychosis preventing the ability to give informed consent, and insufficient English proficiency to enable completion of assessments.

For this study, extra exclusion criteria were applied. Exclusion criteria included participants with prior head injuries, epilepsy, or other neurological impairments. Participants with an affective psychotic disorder (i.e., schizoaffective disorder, and depression or mania with psychotic features) were also excluded to ensure that comorbid depression was not confounded by illness characteristics, as recommended by Cotton et al. (2012). Furthermore, diagnoses such as schizoaffective disorder have different symptom trajectories than FES (Cotton et al., 2013; Jager et al., 2011), further supporting the exclusion of those with an affective psychotic disorder.

### 2.2. Material and methods

#### 2.2.1. Comorbid depression

The Structured Clinical Interview for DSM-IV-TR (SCID-I/P) (First et al., 2001) was used to determine the presence of comorbid depression.

The Center for Epidemiological Studies – Depression Scale (CES-D) was used as an index of current severity of depressive symptoms (Radloff, 1977). The CES-D is a 20-item self-report questionnaire including four negatively worded items. On the basis of “how often have you felt this way during the past week”, the CES-D requires participants to respond to items such as “I felt depressed” on a 4-point Likert response scale ranging from 0 (rarely or none of the time – less than one day) to 3 (most or all of the time – 5–7 days). CES-D total scores range from 0 to 60, with higher scores indicating more severe symptomatology. Caseness for depression has been previously defined at a cut-off score of  $\geq 16$  (Radloff, 1977).

#### 2.2.2. Demographics and premorbid IQ

Demographic information was collected on age, gender, current pharmacological medication, and marital, education, and employment status. The Wide Range Achievement Test (4th edition [WRAT-4] Word Reading subtest) (Wilkinson and Robertson, 2006) was used to estimate premorbid IQ.

#### 2.2.3. Clinical assessments

The positive psychotic symptom subscale of the Brief Psychiatric Rating Scale (BPRS) (Overall and Gorham, 1962) was used to assess positive psychotic symptomatology. This subscale included items of: conceptual disorganisation, hallucinatory behaviour, unusual thought content, and suspiciousness. The Scale for the Assessment of Negative Symptoms (SANS) (Andreason, 1984) composite score was used to measure negative symptom severity. Positive and negative symptom scores on the BPRS and SANS can range from 0 to 28 and 0 to 100, respectively, with higher scores indicating more severe symptomatology.

Download English Version:

<https://daneshyari.com/en/article/5722081>

Download Persian Version:

<https://daneshyari.com/article/5722081>

[Daneshyari.com](https://daneshyari.com)