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Suicidal behaviors in children and adolescents with psychotic disorders

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ABSTRACT

Suicide is the leading cause of premature death in individuals with psychotic disorders. Risk for onset of suicidal behaviors tends to begin in adolescence, remaining high into young adulthood. The present study aims to evaluate the interplay of early onset psychosis and suicide risk by examining suicidal behaviors (ideation, planning, and attempts) in children and adolescents with psychotic disorders (PD) compared to typically developing peers (TD). Twenty five youths were recruited and were diagnostically evaluated for psychosis. We found that the PD children exhibited significantly higher levels of suicidal behaviors than TD children, even when parsed into individual at-risk behaviors.

1. Introduction

Suicide is the leading cause of premature death in individuals with psychotic disorders (Fenton, 2000). The cross-national lifetime prevalence of adult suicide attempts is estimated at 2.7% (Nock et al., 2008a); however, 20–40% of individuals with psychotic disorders will attempt suicide in their lifetime (Radomsky et al., 1999) with a 10% lifetime risk of completed suicide (De Hert et al., 2001). Most studies focus on adults with schizophrenia, despite research suggesting the highest suicide mortality rates are in early stages of the disorder (Nordentoft et al., 2004), and may emerge in prodromal phases (Andriopoulos et al., 2011). The present study examined differences in lifetime suicidal ideation, planning, and attempts, herein referred to as *suicidal behaviors*, in children and adolescents with psychotic disorders.

Studies of suicidal behavior suggest the risk for onset begins in early adolescence and remains high into young adulthood (Nock et al., 2008b). These already high rates of suicidal behaviors increase in the presence of psychotic symptoms (Jang et al., 2014; Jarbin and Von Knorring, 2004; Kelleher et al., 2012). A handful of studies find that children with psychotic disorders demonstrate an increased risk of suicidal behavior, with rates of attempted or committed suicide between 12%–38% (Sanchez-Gistau et al., 2013; Eggers, 1978; Asarnow et al., 1994). However, two studies (Eggers, 1978; Asarnow et al., 1994) focus exclusively on children with schizophrenia, rather than psychosis more broadly, potentially underestimating the rate of suicidal behavior associated with psychotic disorders. Current research on adolescents with schizophrenia suggests that suicidal behavior is common within this population. Individuals with early-onset psychosis are more likely to endorse suicide ideation and attempts than individuals with adult-onset psychosis (Joa et al., 2009). Among all adolescents who attempt suicide, those with psychotic symptoms are more likely to make another attempt in subsequent five years than peers without psychotic symptoms (Kotila and Lonnqvist, 1989).

Clinical differences in early-onset psychotic disorders may increase risk for suicidal behaviors. Typically, individuals with early-onset psychotic disorders have longer durations of untreated psychosis, and this time is significantly related to suicide risk (Falcone et al., 2010). Moreover, premorbid functioning in early-onset cases, often poorer than in adult-onset psychosis, also increases the risk for suicide in adolescence (Robinson et al., 2009). A previous suicide attempt is the strongest predictor of subsequent suicidal behavior (Brown et al., 2000), and given the high prevalence of suicide attempts in the disorder's early stages (Pompili et al., 2011), the risk for suicidal behaviors in youth with psychotic disorders remains critically elevated throughout the disorder's course.

Suicidal behaviors vary in severity. Experts in suicide developed nomenclature to parse the word suicide into its broad and diverse behaviors, including passing and chronic thoughts (ideation), plans or intentions, and attempts (Silverman et al., 2007). The few studies that investigated suicidal behaviors in adolescents with psychotic disorders typically assessed only attempts or completed suicide (De Hert et al., 2001; Fedyszyn et al., 2010; Jarbin and Von Knorring, 2004). Thus, evaluating the full range of behaviors is necessary. This study focuses

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Table 1
Demographics and clinical details.

	PD $N = 25$	TD $N = 30$	Differences between groups
Gender (F/M/T)	8/16/1	15/15/0	$\chi^2 = 2.73$
Ethnicity			
White	14	13	
Black	2	7	
First nations	2	0	
South/Central American	2	1	
Middle Eastern/West Asian	0	1	
Interracial	4	4	
Unreported	1	4	
Age: mean (SD) [Range]	12.00 (2.96) [8–17]	11.23 (3.32) [6–16]	$t(53) = -0.896$
Education: mean (SD) [Range]	5.76 (2.91) [2−12]	5.85 (3.52) [1–15]	$t(45) = 0.088$
Disorder type (Schizophrenia/Psychotic Disorder NOS)	9/16	N/A	
Psychiatric comorbidities (%)		N/A	
0 comorbidities	1 (4%)		
1 comorbidity	4 (16%)		
2 comorbidities	7 (28%)		
3 comorbidities	7 (28%)		
4+ comorbidities	6 (24%)		
Psychiatric medications (%)		N/A	
Atypical antipsychotics	16 (64%)		
Typical antipsychotics	1 (4%)		
SSRIs	12 (48%)		
SNRIs	2 (8%)		
Stimulants	3 (12%)		
Benzodiazepines	4 (16%)		
Anticonvulsant/anti-tremors	3 (12%)		
Mood stabilizers	2 (8%)		
Other	8 (32%)		

* $p < 0.05$.
** $p < 0.01$.

specifically on assessing the types and prevalence of suicidal behaviors in children and adolescents with psychotic disorders. This study is the first to investigate these behaviors in children as young as seven years of age. Based on the increased occurrence of suicidal behaviors among adolescents (Nock et al., 2013) and adults with psychosis, we expect to see higher rates of suicidal behaviors in children and adolescents with psychotic disorders relative to typically developing peers. Additionally, given that current research on individuals with psychotic disorders is limited to suicide attempts or uses the vaguely defined term of "suicide," this study clarifies and expands upon the previously generically defined phenomenon within this population.

2. Methods

Data were collected within the context of a larger study on psychotic disorders. The Institutional Review Board approved the study; all parents and participants provided consent/assent.

2.1. Participants

Twenty five (25) youth with psychotic disorders (PD) participated in this study, 14 children (ages 6–11) and 11 adolescents (ages 12–17). Children and adolescents were recruited from a specialized clinic at Boston Children's Hospital. PD Children and adolescents in this study

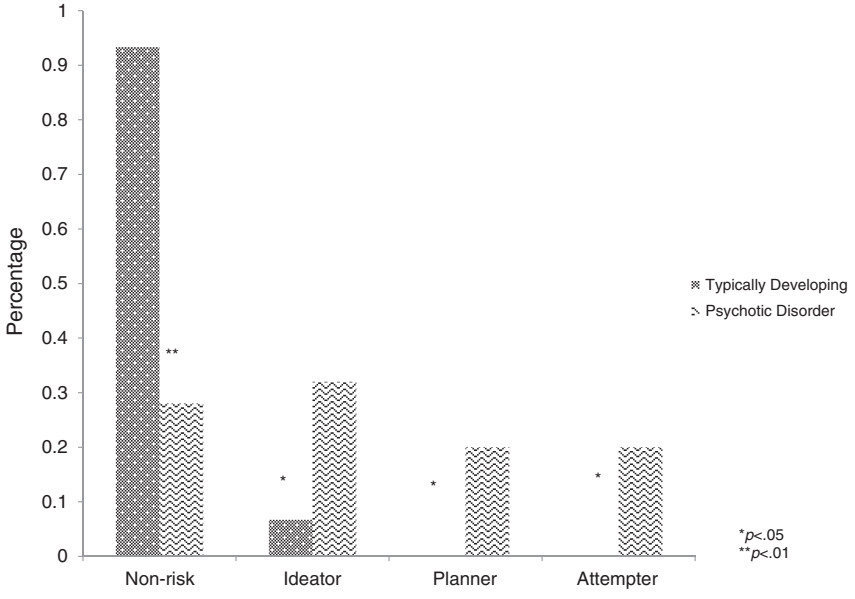

Fig. 1. Group differences in suicidal behavior.