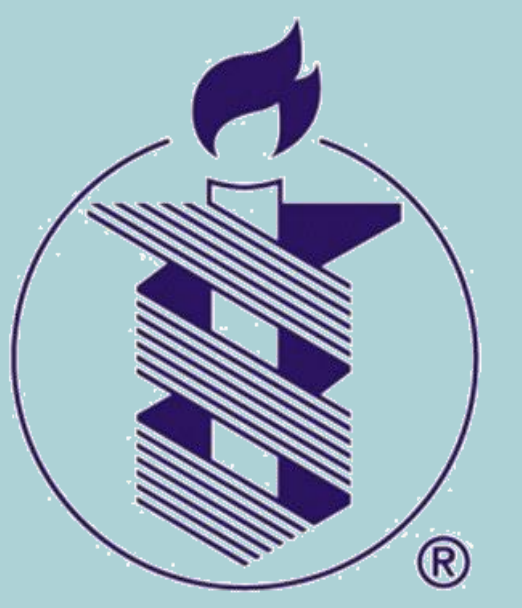


Psychotic-Like Experiences, Magical Thinking, Fantasy and Internalizing and Externalizing Behavior in a Family High-Risk Case-Control Study



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INTRODUCTION

- Children of parents with psychosis (FHR: family-high risk) are at risk for later psychosis, behavioral problems and socioemotional and cognitive impairments^{1,2}.
- Magical thinking and fantasy are a common part of childhood and share some similarities with Psychotic-Like Experiences (PLEs) and may constitute part of a spectrum of normative development. Nevertheless, these experiences confer increased risk for later psychotic disorder.³
- Magical thinking has been studied in children with Obsessive-Compulsive Disorder (OCD)⁴, but little is known about magical thinking in FHR children.
- A question is whether FHR children experience PLEs and whether this is associated with other child behavioral outcomes, relative to children who are not at risk for psychosis.

RESEARCH QUESTIONS

- Are children at Family High Risk for psychosis (FHR) more likely to report Psychotic-Like Experiences, Magical Thinking and Fantasy, and Externalizing and Internalizing Problems compared to Healthy Control (HC) children?
- Does the association between Psychotic-Like experiences, Magical Thinking, Fantasy and behavioral outcomes differ in FHR and HC?

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METHODS

- This high-risk study focuses on the biological children of healthy parents (HC: healthy controls) and of parents with a diagnosis of psychosis (FHR).
- FHR and HC samples were matched on age, education, race, and sex, with a sample consisting of 17 HC and 18 FHR. Children were 7-12 years old (M=9.5, SD=1.9).

Measures

Questionnaire	Item Examples
Psychosis-Like Experiences (PLE)³ Respondent: Child	<ul style="list-style-type: none"> Have you ever seen something, or someone that other people could not see? Have you ever heard voices that other people could not hear?
Magical Thinking Questionnaire (MTQ) Respondent: Child Selected Subscales: Action, Thoughts	<ul style="list-style-type: none"> Is it possible for dogs to fly? Is it possible to move an object across a room just by thinking about it? Is it possible to make a rainbow disappear by clicking your fingers?
Interpersonal Reactivity Index (IRI) Respondent: Child Subscales: Fantasy, Personal Distress	<ul style="list-style-type: none"> I daydream and fantasize, with some regularity, about things that might happen to me. When I see someone who badly needs help in an emergency, I go to pieces. I sometimes find it difficult to see things from the "other guy's" point of view.
Child Behavior Checklist (CBCL)⁶ Respondent: Parent Subscales: Externalizing Behavior, Internalizing Behavior	<ul style="list-style-type: none"> [My Child] Can't concentrate, can't pay attention for long [My Child] Would rather be alone than with others

RESULTS

- No significant group differences were detected in reported Psychotic-Like-Experiences, Magical Thinking and Fantasy.
- T-tests comparing groups matched by age, education, race, and gender revealed more internalizing problems externalizing problems in FHR compared to HC children.

Figure 1: Mean differences in Externalizing Behavior

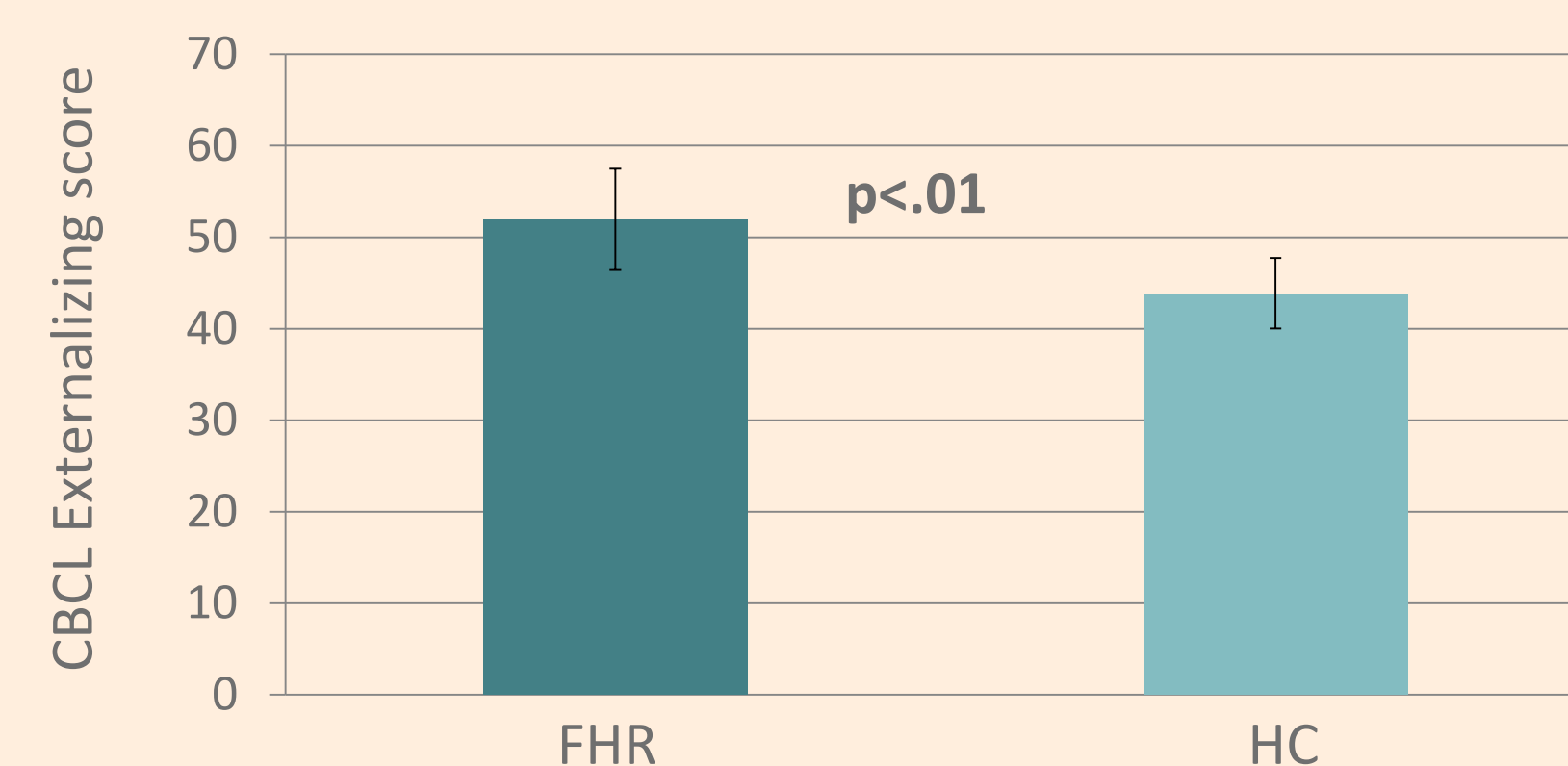
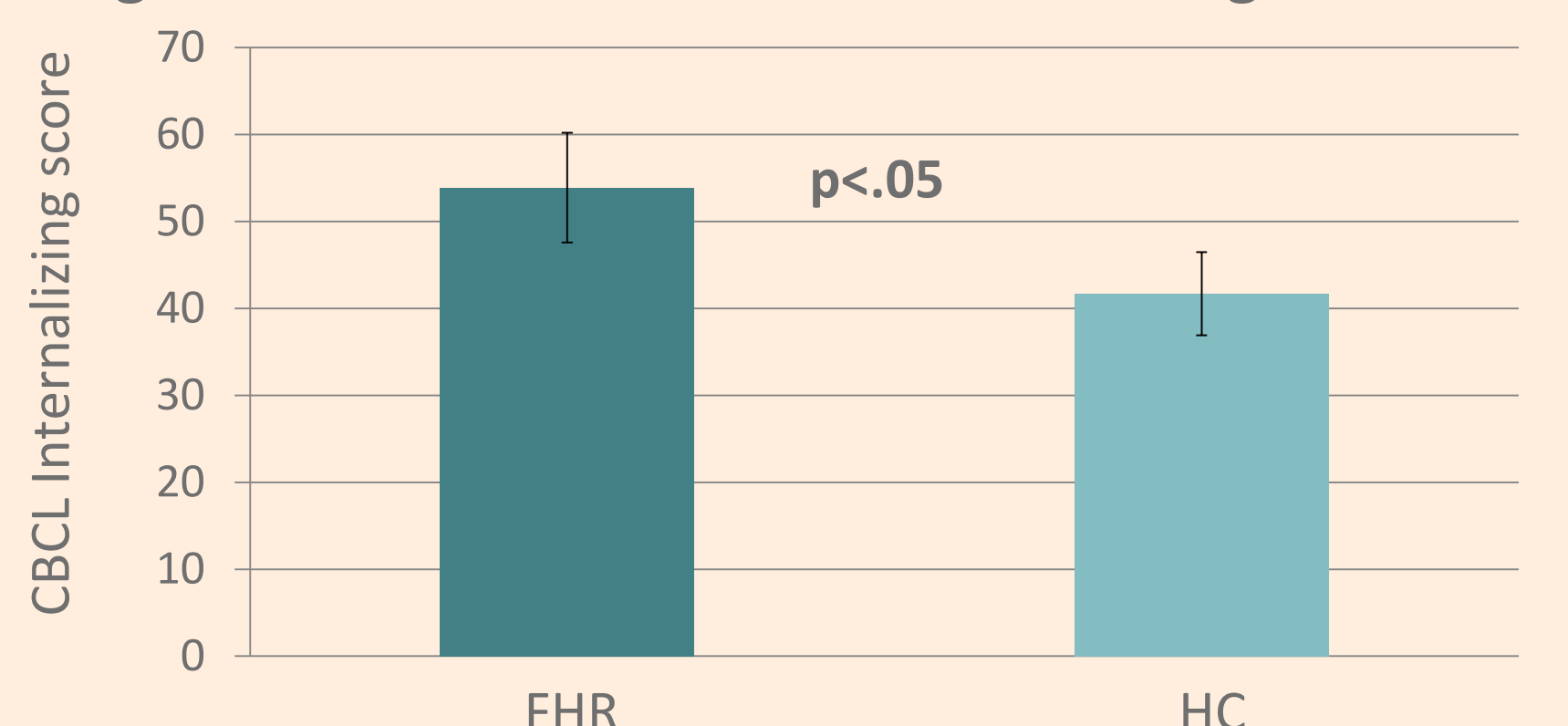


Figure 2: Mean differences in Internalizing Behavior



- Partial correlations controlling for parental SES for each group showed differences in associations between PLE and the other outcomes.
- Some associations between PLE and outcomes for FHR were significantly or marginally different from the HC and vice versa, based on Fisher's R-to-Z tests.

Correlations between PLE and different Child Behavioral Outcomes by Risk Status

Questionnaire subscales	FHR	HC	Fisher's R-to-Z (p-value)
MTQ Thought	0.502 [†]	-0.016	Ns
MTQ Action	0.316	-0.057	Ns
IRI Fantasy	0.307	0.667 ^{**}	Ns
IRI Personal Distress	0.748 ^{**}	0.114	.07
CBCL Internalizing Problems	-0.162	0.162	Ns
CBCL Externalizing Problems	-0.11	0.726 ^{**}	.03

[†]p<0.1, *p<.05, **p<.01

DISCUSSION

- Psychotic-like experiences may be associated with a different set of cognitive experiences and behaviors in FHR and HC children.
- It is possible that Psychosis-Like Experiences in FHR and HC subjects may be related to distinct mechanisms. More studies are needed to determine extent to which some profiles of Psychosis-Like Experiences, Fantasy and Magical Thinking may be more predictive of later problematic outcomes by group.
- Limitations of this study include the sample size; A larger sample is needed to further untangle the relationship between PLE, Magical Thinking and Fantasy.

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