Positive Psychotherapy for Youth at Clinical High-Risk for Psychosis

Lauren Drvaric, MSc. Psych., PhD. Candidate (co-investigator)

Doctoral Research Trainee, Complex Mental Illness, Centre for Addiction and Mental Health

Institute of Medical Science
UNIVERSITY OF TORONTO

camh
Centre for Addiction and Mental Health

General Outline

The Clinical High-Risk (CHR) State

KEY FEATURES:

1. Three psychosis-risk syndromes

2. Specific clinical measures can reliably identify CHRs, such as the Structured Interview for Psychosis-risk Syndromes (SIPS) (Miller et al., 2003. *Schizophr Bull*)

3. 29-36% psychosis conversion rate, 2-3 years following diagnosis (Fusar-Poli et al., 2012. *Arch Gen Psychiatry*)

CHR for Psychosis

Genetic risk
Trauma
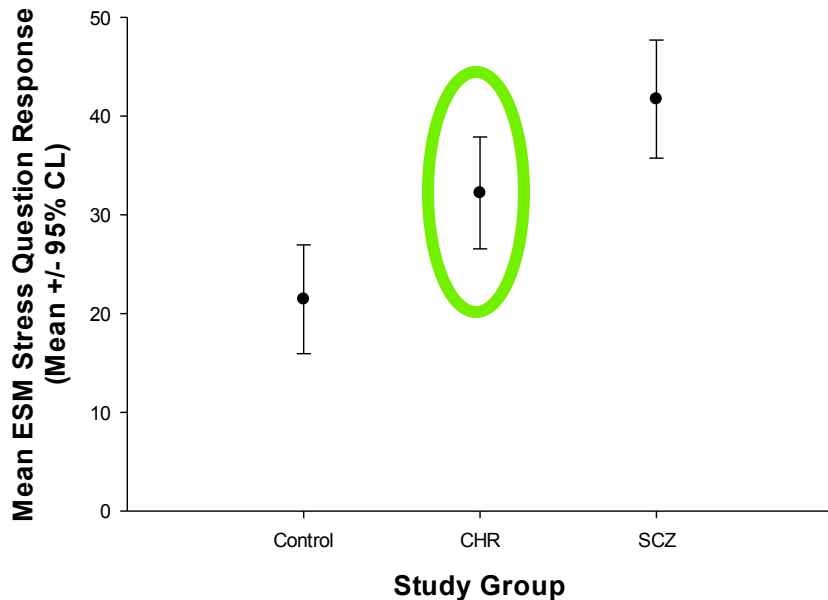**Stress**
**Environmental**
stressors
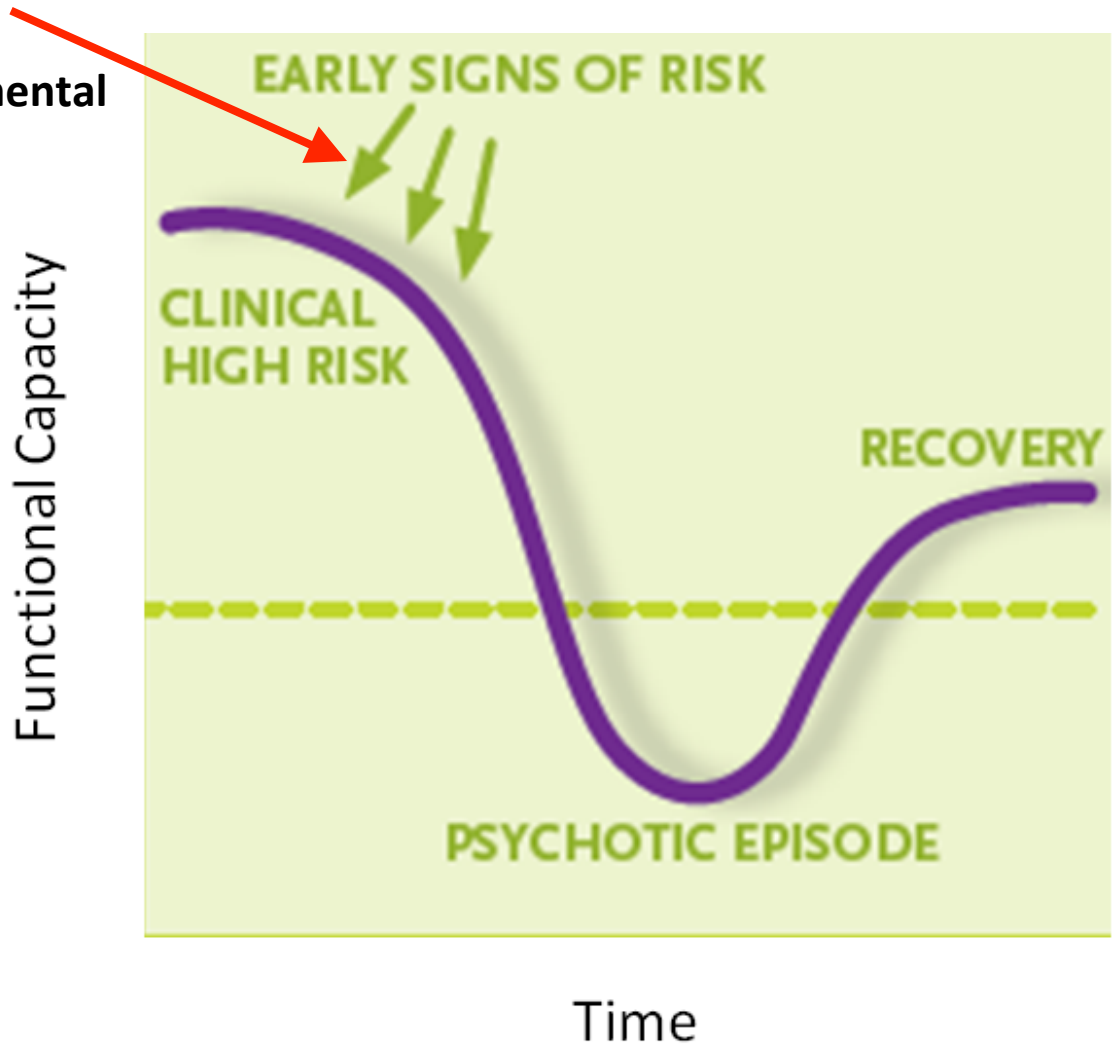
CHR Case Formulation

- 18 year old female
- Preoccupation with delusional thoughts
- Hypervigilance
- Sense that others are watching her
- Sees shadows in peripheral
- Withdrawing from friends
- **INSIGHT** is intact

Increase in stress contributes to increase in psychotic experiences in CHR

Figure a. CHR and SCZ patients experience higher levels of daily stress compared to healthy controls.
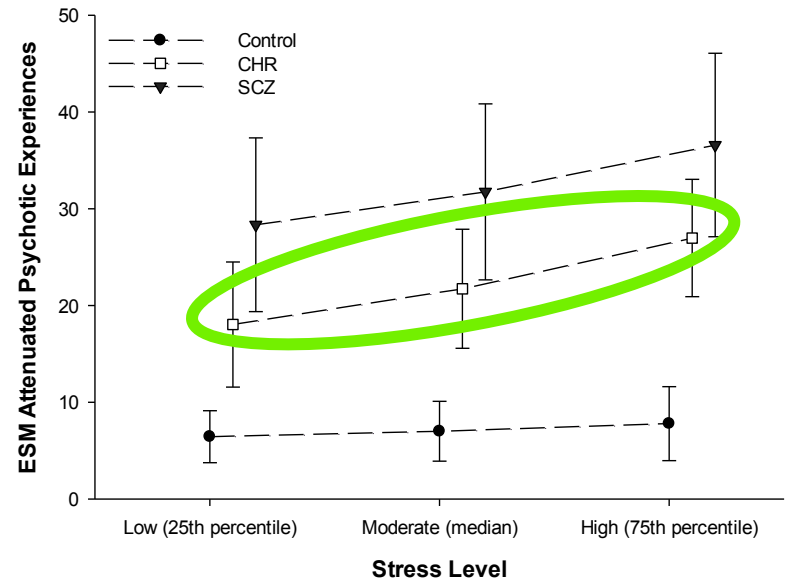
Figure b. CHR and SCZ patients reveal increased attenuated psychotic experiences at all stress level as compared to healthy volunteers (p<0.001), with no significant difference between CHR and SCZ (p>0.04).

Psychosocial Intervention in CHR

Available psychotherapeutic treatments for CHR:

- Cognitive Behavioral Therapy (CBT)
- Family Focused Therapy (FFT)

Positive Psychotherapy (PPT) and implications for use in CHR youth:

- Resilience-building approach
- Enhanced well-being
- Previous RCTs demonstrate moderate effect sizes in reducing stress and symptoms

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Introduction
- CHR for psychosis
- Stress and CHR
- Psychosocial Intervention in CHR

Objectives
- Aims and Hypotheses

Method
- Overall design
- Measures

Results
- Preliminary analysis

Conclusions
- RCT for PPT in CHR youth

Aims and Hypotheses

Aims

To investigate the effect of PPT on CHR youth in reducing stress and psychosis-risk syndrome symptoms, while increasing overall wellbeing.

Hypotheses

<u>Primary</u>: CHR participants will exhibit a decrease in stress and psychosis-risk syndrome symptoms post-PPT intervention.

<u>Secondary</u>: CHR participants will exhibit an increase in wellbeing post-PPT intervention.

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Overall Design

- Pilot, open-label trial
- Single-armed, no control comparator
- 16 CHR completed 12 weeks of PPT
- 1 hour per week for 12 consecutive weeks

Measures

Primary:

- Perceived Stress Scale (PSS) (Cohen, Kamarck, & Mermelstein , 1983)
  - Measure of subjective global stress
  - 10-item scale
  - Two subscales:
    1) Perceived distress
    2) Perceived coping
- Scores range from 0-40, where scores closer to 40 are indicative of high perceived stress

0 Never	1 Almost Never	2 Sometimes	3 Fairly Often	4 Very Often

Measures

Primary:

- Structured Interview for Psychosis-risk Syndromes (SIPS) (McGlashan et al., 2001)
  - Positive Symptoms Scale
    - P1 Unusual Thought Content/Delusional Ideas
    - P2 Suspiciousness/Persecutory Ideas
    - P3 Grandiose Ideas
    - P4 Perceptual Abnormalities/Hallucinations
    - P5 Disorganized Communication

Scale of Psychosis-risk Symptoms (SOPS)

- Positive Symptoms (P1-P5) are rated on a SOPS scale that ranges from 0 (Absent) to 6 (Severe and Psychotic):

Positive Symptom SOPS

0 Absent	1 Questionably Present	2 Mild	3 Moderate	4 Moderately Severe	5 Severe but Not Psychotic	6 Severe and Psychotic

Measures

Secondary:

- Warwick-Edinburgh Mental Well-being Scale (WEMWBS) (Stewart-Brown & Janmohamed, 2008)

  - 14-item scale

  - Assesses positive well-being

  - Covers both hedonic and eudaimonic perspectives

  - Total scores range from 14-70, where higher scores closer to 70 indicate a high level of well-being

1 None of the time	2 Rarely	3 Some of the time	4 Often	5 All of the time

Intervention

Positive Psychotherapy (Seligman & Rashid, in press)

- PERMA
  - Positive emotion; Engagement; Relationships; Meaning; and Accomplishment
- Non-stigmatizing
- Not symptom focused
- Encourages use of internal resources
- Solution focused
- Necessitates individual autonomy

Intervention

Session	Description
1	**Orientation to PPT**
2	**Character Strengths** Exercise: Story of resilience and Signature Strengths Questionnaire-72
3	**Introduction to Grudges** Exercise: Better version of myself
4	**Good & Bad Memories** Exercise: Open and closed memories
5	**Continuation of How to Cope with Bad Memories** Exercise: Positive cognitive re-appraisal strategies
6	**One Door Closes, One Door Opens**
7	**Hope, Optimism & Post-Traumatic Growth** Exercise: Gratitude letter and visit
8	**Positive Relationships & Communication** Exercise: Assertiveness and Active Constructive Responding
9	**Savoring**
10	**Meaning & Purpose**
11	**Revisiting the Benefits of Engaging in Activities**
12	**Leaving a Legacy** Exercise: Positive legacy

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Preliminary Analysis

- Linear regression
  - Assess for comorbid diagnoses effect on stress at baseline
- Mixed model analyses
  - Repeated measures (Pre- and Post-Intervention)
  - Account for potential confounds:
    - Medication
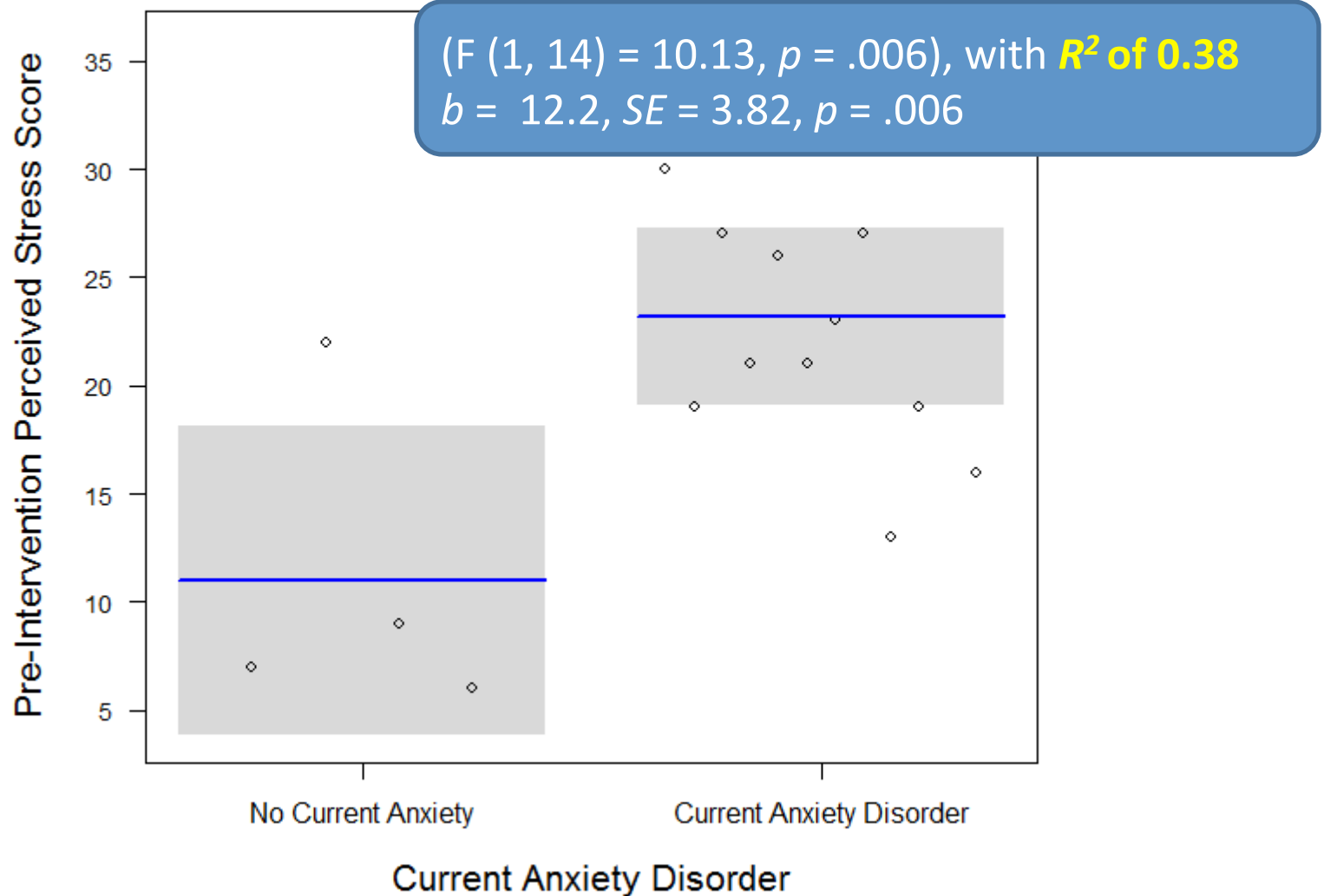   - Comorbid diagnoses (e.g., depression, anxiety)
    - Stress

CHR Youth Characteristics

Characteristic	CHR Youth (n = 16)
Mean age in years (SD)	20.56 (2.78)
Gender, n (%)	
Male	9 (56%)
Female	7 (44%)
Racial Background, n (%)	
White	9 (56%)
Black	3 (19%)
Asian	4 (25%)
Current Comorbid diagnosis	
Mood disorder, n (%)	8 (50%)
Anxiety disorder, n (%)	12 (75%)
Psychotherapy experience, n (%)	
Never practiced	13 (81%)
Practiced once or twice	3 (19%)

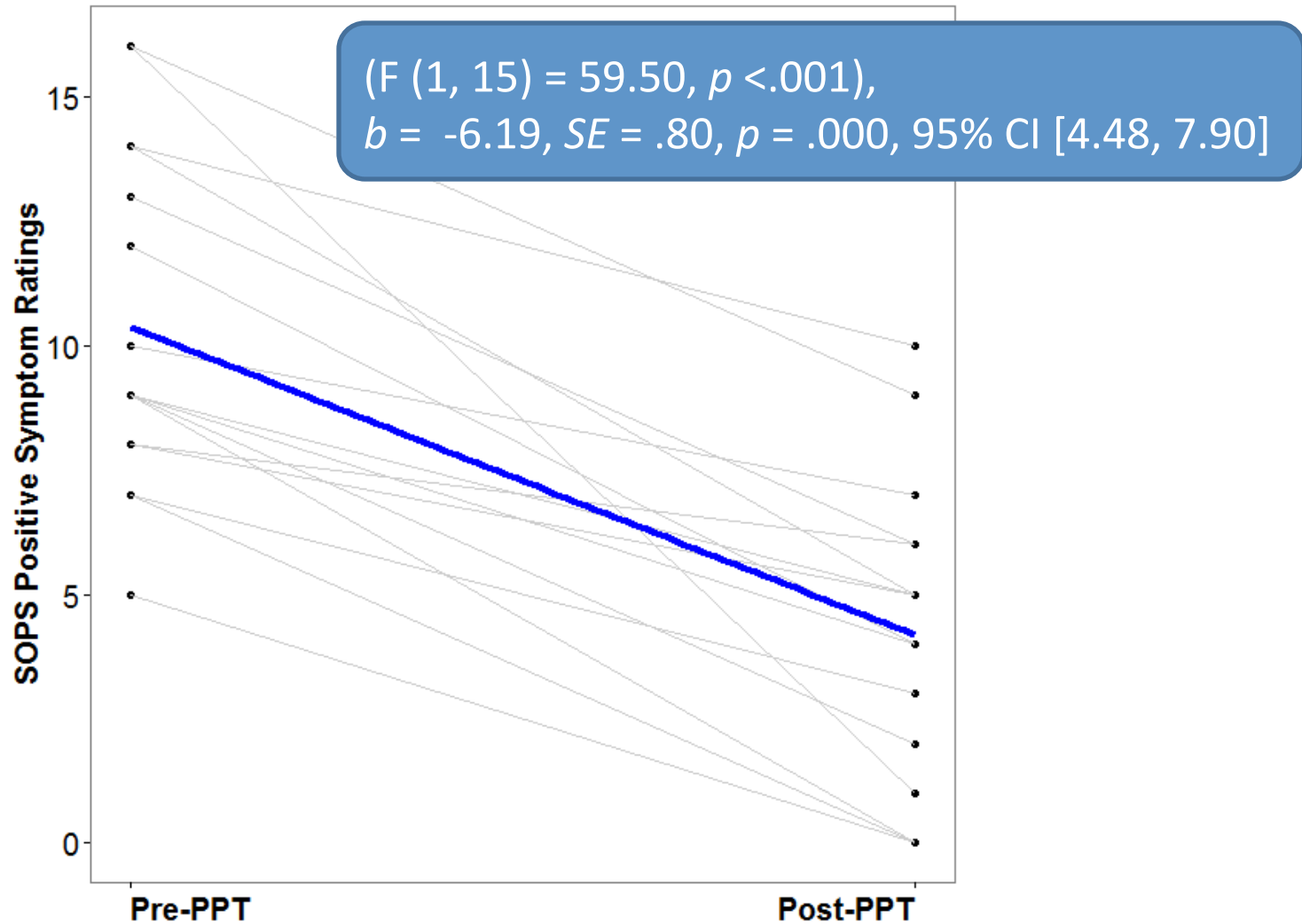# Perceived Stress and Comorbid Mood Disorders

(F $(1, 14) = 9.23$, $p = .009$), with R^2 of 0.35
$b = 10.25$, $SE = 3.37$, $p = .009$
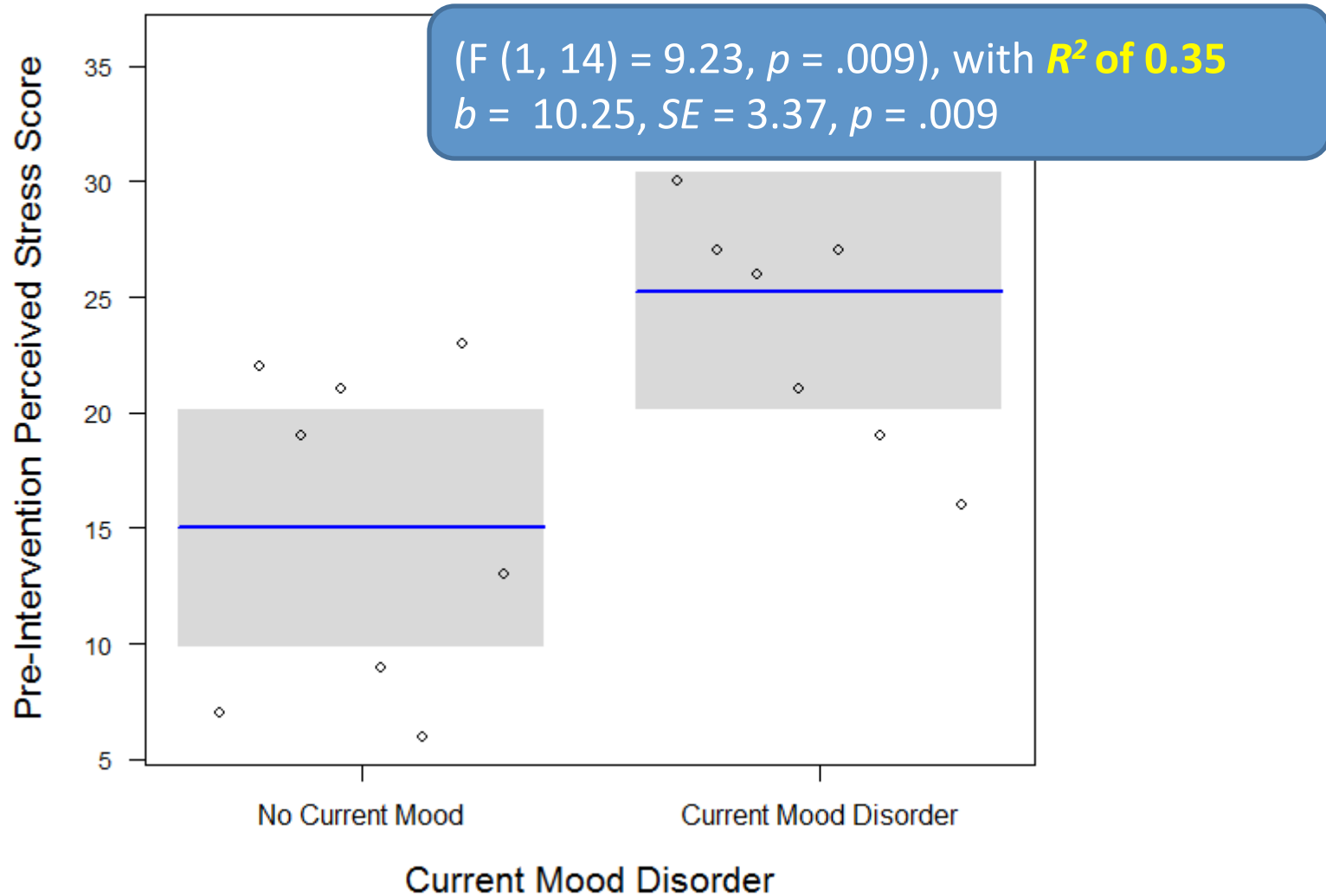
Perceived Stress and Comorbid Anxiety Disorders

(F (1, 14) = 10.13, p = .006), with R^2 of 0.38
b = 12.2, SE = 3.82, p = .006

Primary Hypothesis: Perceived Stress

(F (1, 15) = 5.41, *p* = .035),
b = -4.19, *SE* = 1.80, *p* = .035, 95% CI [.35, 8.03]
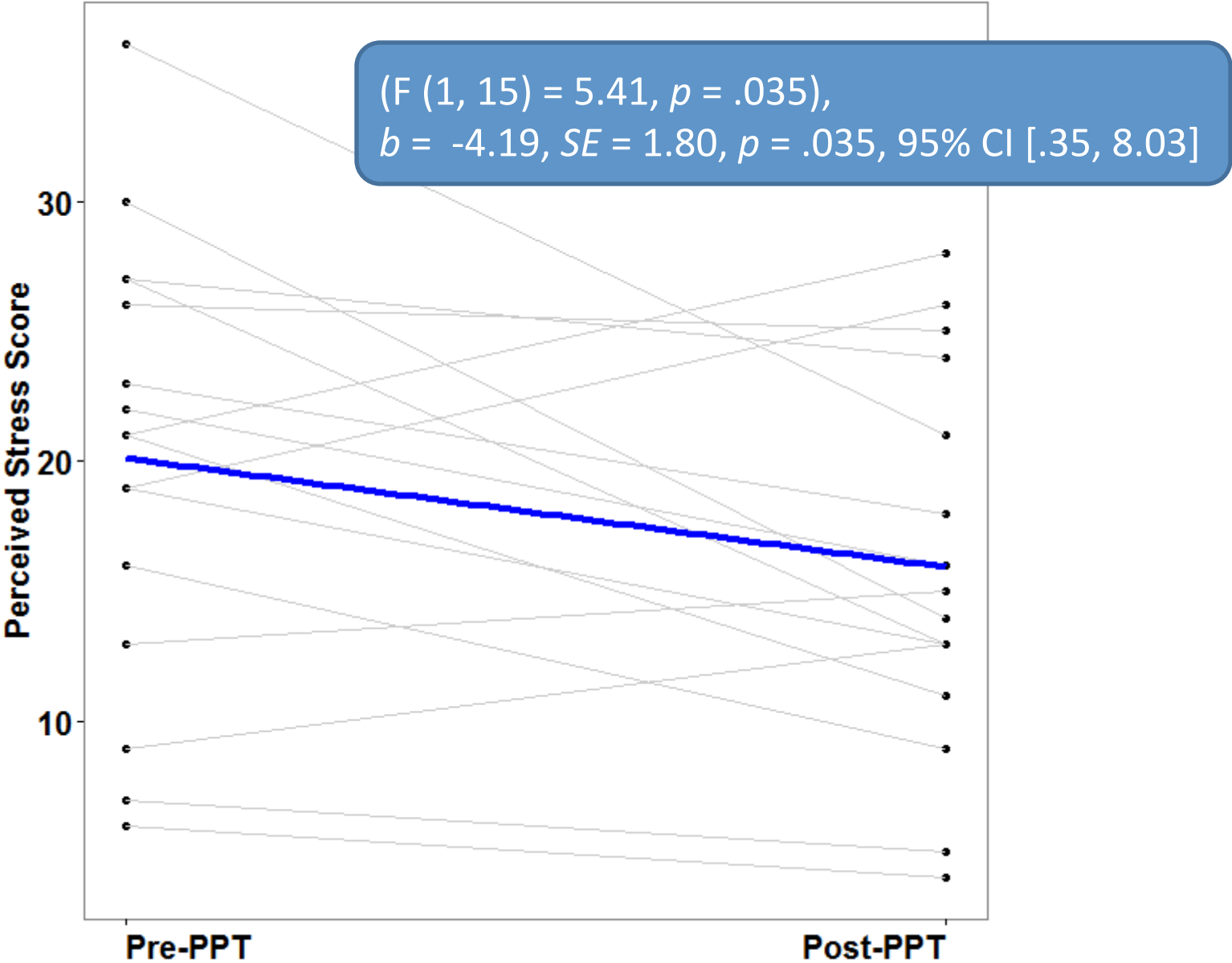
Primary Hypothesis: Psychosis-risk Syndrome Symptoms

Secondary Hypothesis: Well-being

(F (1, 15) = 12.00, *p* = .003),
b = 5.94, *SE* = 1.71, *p* = .003, 95% CI [-9.59, -2.28]
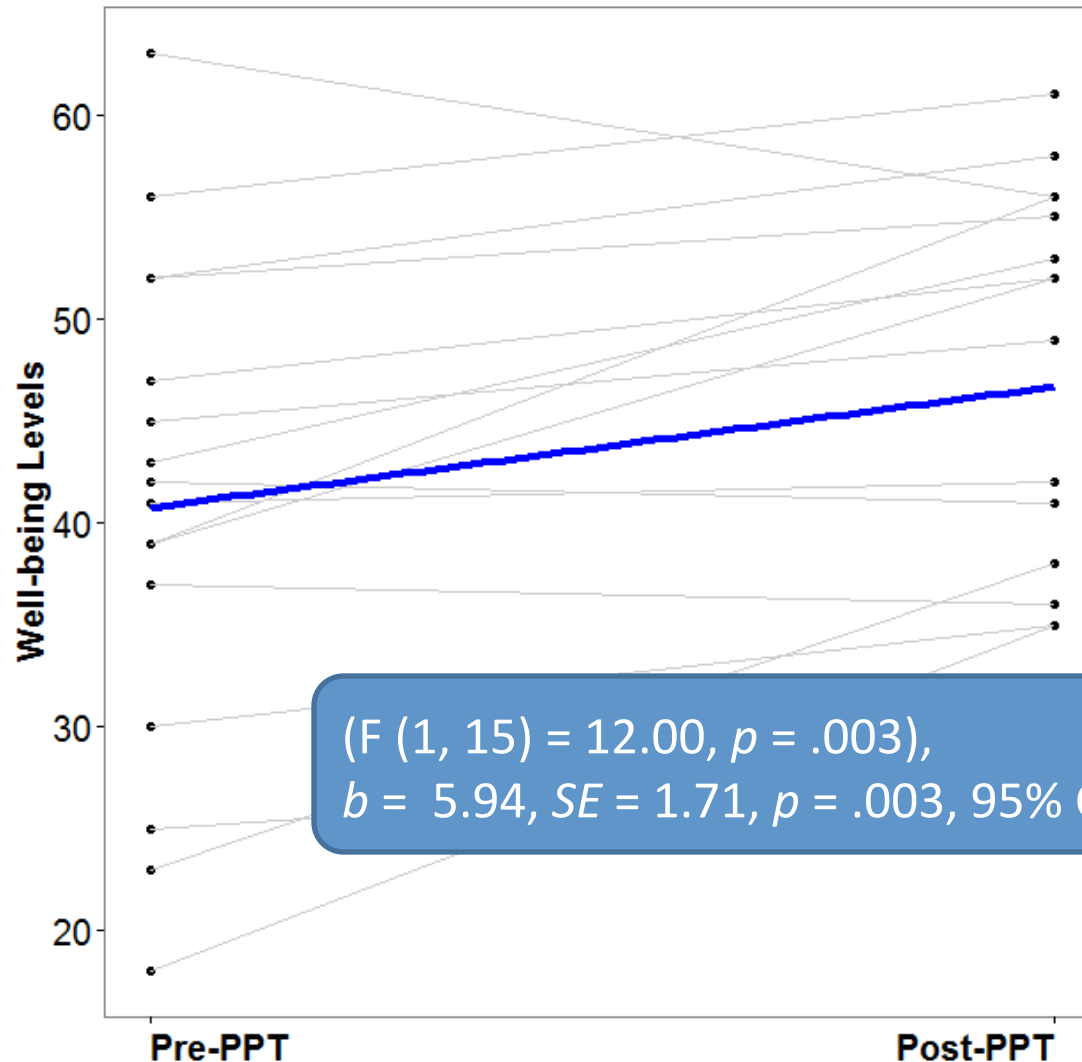
Stress and Well-Being

The effect of well-being on <u>stress levels</u>

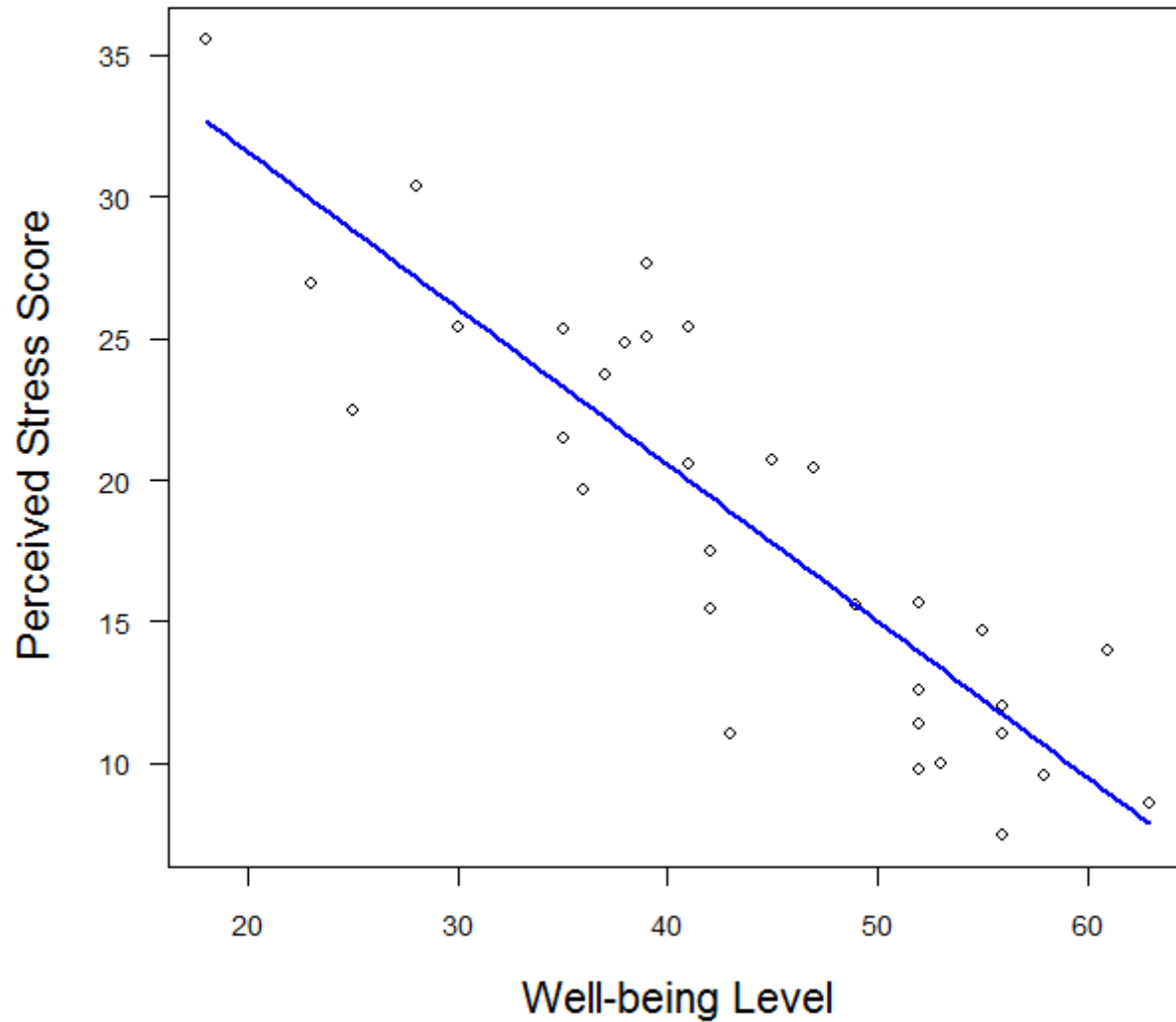- Well-being is a potentially important predictor of stress

(F $(1, 19.58)$ = 38.59, p = <.001)

- Perceived stress scores decreased as well-being scores increased

b = -.55, SE = .09, p = <.001, 95% CI[-.74, -.37]

- The effects of well-being were maintained after partialing out the effects of SOPS scores
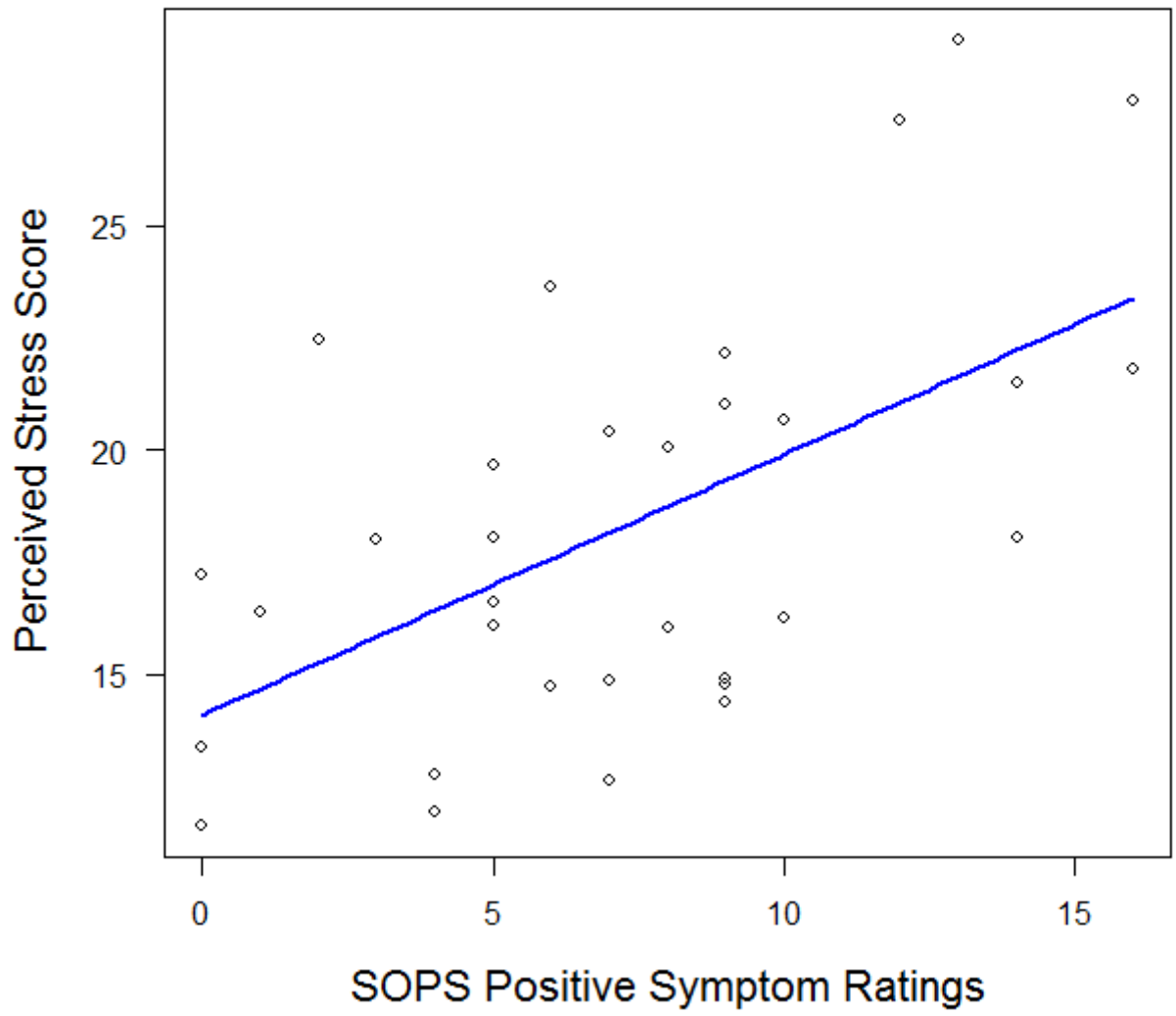
Effect of Well-being on Stress

Stress and Psychosis-risk Syndrome Symptoms

- The effect of SOPS on <u>stress levels</u>
- SOPS is not a potentially important predictor of stress

(F (1, 28.493) = 1.88, *p* = .181)

b = .58, SE = .42, *p* = .181, 95% CI[-.29, 1.45]

Effect of Psychosis-risk Syndrome Symptoms on Stress

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Limitations

- Open label trial
- Single armed (no control comparator)
- Small sample size
- Time effect vs. treatment effect

Conclusions

After PPT:

↓ Stress

↓ Psychosis-risk syndrome symptoms

↑Well-being

PPT can effectively be applied to CHR youth, however, effect of treatment is unknown without a control comparator

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Clinical trial of PPT for CHR Youth

Negation of symptoms ≠ WELLBEING

Address stress specifically

Necessitate living well

PERMA – Seligman's **_Flourishing_**

Acknowledgements

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