Borderline Personality Disorder in Children and Adolescents

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Complex Case
Personality disorder in adolescence: The diagnosis that dare not speak its name

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When is a disorder valid?

Robins & Guze (1970):

- Clinical description (establishing that disorder represents a syndrome of symptoms that can be empirically shown to co-occur)
- Lab studies (biological substrate of the disorder)
- Delimitation from other disorders (disorders are divided into discreet categories)
- Follow-up studies (common course to symptom patterns across individuals)
- Family studies (genetic basis of the biological phenomenon associated with the disorder)

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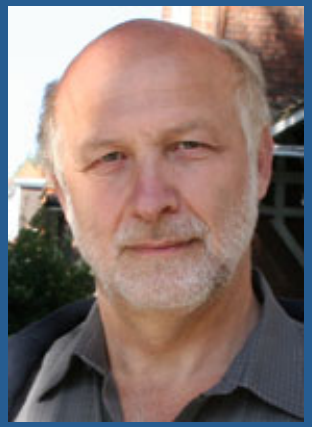
- Family studies (genetic basis of the biological phenomenon associated with the disorder)

Our work so far

- Can one accurately assess and identify BPD in children and adolescents?
- How does one understand the development or early precursors of BPD in children and adolescents?



Identification of BPD in children

Personality Disorders: Theory, Research, and Treatment

1949-2715/12/$12.00 DOI: 10.1037/a0027948

An Item Response Theory Analysis of the *DSM–IV* Borderline Personality Disorder Criteria in a Population-Based Sample of 11- to 12-Year-Old Children

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Aims

1) Evaluate the dimensional structure of the BPD criteria in youth using categorical factor analysis

2) Examine utility of each individual BPD criterion through two separate statistical approaches:
   (a) Use of IRT modeling
   (b) Conditional probabilities to evaluate the diagnostic efficiency (sensitivity, specificity, PPP, and NPP)

3) Test for DIF across gender using IRT

Study Participants

- 11-12 year-olds who were administered the CI-BPD (Zanarini et al., 2004) from ALSPAC study in England
- 7,149 children attended the 11-yr-old clinic visit:
  - 6,409 were evaluated with the CI-BPD
  - Final **N = 6,339** (after randomly removing 1 child from every twin pair)
- 3,071 boys (48.45%); 3,268 girls (51.55%)
- 96% of sample was Caucasian
- Mean age = 11.75 years
- BPD was diagnosed in 0.66% (n=42) of the sample
  - Non-significant gender difference: $\chi^2(1) = 0.17$, $p = .68$
  - 0.70% (n=23) of girls; 0.62% (n=19) of boys

Results: Dimensionality

Table 1

Goodness of Fit Statistics for 3 CFA Models Performed Separately by Gender

Model	χ^2	*df*	$\Delta\chi^2$	Δ_{df}	RMSEA	CFI	TLI
Boys							
Model 1: Unidimensional	140.22***	27			.037	.987	.982
Model 2: 2 Factors (Feske et al., 2007)	132.08***	26	9.42**	1	.036	.987	.983
Model 3: 3 Factors (Sanislow et al., 2002)	98.91***	24	38.88***	3	.032	.991	.987
Girls							
Model 1: Unidimensional	126.85***	27			.034	.988	.985
Model 2[a]: 2 Factors (Feske et al., 2007)	126.39***	26	1.03	1	.034	.988	.984
Model 3: 3 Factors (Sanislow et al., 2002)	121.22***	24	7.90*	3	.035	.989	.983

Results: Dimensionality

- Factor correlations
  - Boys:
    - 2-factor (Feske et al. , 2007): *r* = .96
    - 3-factor (Sanislow et al., 2002): *rs* = .85 to .97
  - Girls:
    - 2-factor (Feske et al. , 2007): > 1.0
    - 3-factor (Sanislow et al., 2002): *rs* = .89 to .98

***1-factor model is most parsimonious

Discussion: Dimensionality

- Single-factor model fit well.
- Unidimensional factor structure is consistent with adult BPD literature (e.g., Aggen et al., 2009; Clifton & Pilkonis, 2006; Johansen et al., 2004; Sanislow et al., 2002).
- BPD criteria constitute a coherent combination of traits and symptoms even in early pre-teenage youth.
- Consistent with growing trend to view psychiatric diagnoses as continuously distributed phenomena (e.g., Widiger & Samuel, 2005).
- A dimensional perspective may be better able to account for developmental fluctuations and increased heterogeneity that have been reported in younger samples (Miller et al., 2008).

Discussion: IRT

- **Discrimination**
  - Each BPD criterion showed adequate discrimination, for boys and girls.
  - Criteria were most discriminating at the high (positive) end of the BPD liability continuum, with measurement precision (information) for the instrument as a whole highest between +1 to +3 on the underlying construct continuum.
  - Consistent with results from a general population sample of adults (Aggen et al., 2009)

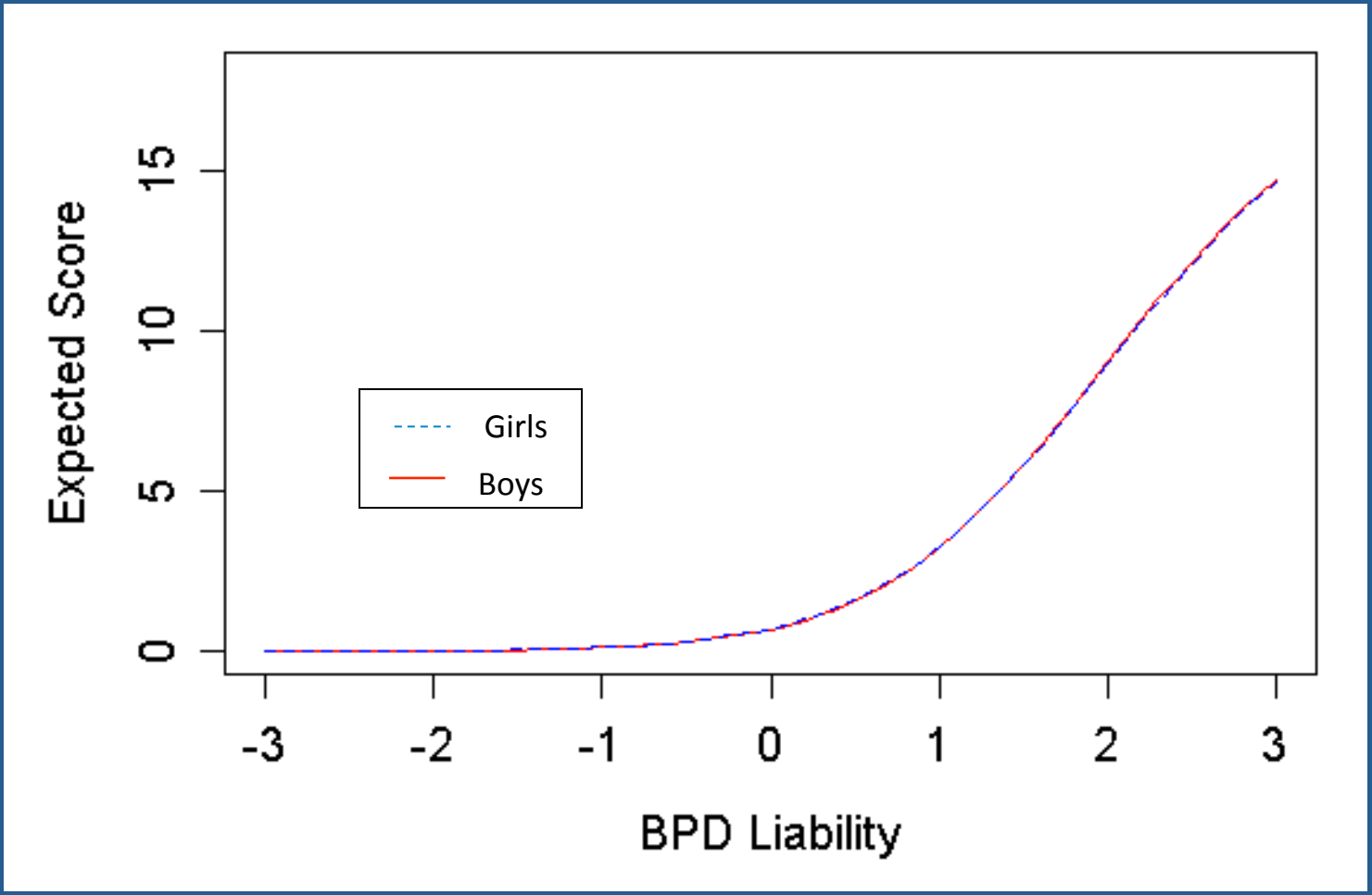
Discussion: IRT

- **Thresholds**
  - Abandonment fears and suicidal behavior were the most "difficult" symptoms for both boys and girls.
  - Consistent with studies showing that abandonment fears is the least commonly exhibited symptom (Becker et al., 2002; Clifton & Pilkonis, 2007)
  - And that suicidal behaviors are rare in young children (e.g., Resch, Parzer, & Brunner, 2008).

Discussion: DIF

- Several BPD criteria functioned differently across gender.
- DIF was greatest for *Abandonment Fears* and *Impulsivity*
- 5 instances of DIF:
  - ***Boys*** more likely than girls to be rated as exhibiting: *Uncontrolled anger*, *Suicidal Behaviors*, and *Impulsivity*
  - ***Girls*** more likely to be rated as exhibiting *Abandonment Fears* beginning at +1 std unit, with difference increasing as BPD liability increases
  - *Unstable relationships* was more discriminating for boys than girls
- Possible explanations for DIF:
  - Problems in wording of CI-BPD items (e.g., impulsivity, uncontrolled anger)
  - Gender stereotyping (e.g., uncontrolled anger)
  - In addition to the common factor that is being measured, a given item also taps a specific factor that really does differ across subgroups (Wicherts & Dolan, 2010)
- DIF balances out for total interview

Figure 3. Test characteristic curves.



The BPFSC

Article

Clinical Child Psychology and Psychiatry
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The cross-informant concordance and concurrent validity of the Borderline Personality Features Scale for Children in a community sample of boys

Carla Sharp,[1] Orion Mosko,[2] Bonny Chang,[3] and Carolyn Ha[1]

BPFS-C ID: _____

Date: _____

How I Feel About Myself and Others

Instructions: Here are some statements about the way you feel about yourself and other people. Put an X in the box that tells how true each statement is about you.

1. I'm a pretty happy person.

Not at All True	Hardly Ever True	Sometimes True	Often True	Always True

2. I feel very lonely.

Not at All True	Hardly Ever True	Sometimes True	Often True	Always True

3. I get upset when my parents or friends leave town for a few days.

Not at All True	Hardly Ever True	Sometimes True	Often True	Always True

4. I do things that other people consider wild or out of control.

Not at All True	Hardly Ever True	Sometimes True	Often True	Always True

5. I feel pretty much the same way all the time. My feelings don't change very often.

Not at All True	Hardly Ever True	Sometimes True	Often True	Always True

Aims

- Investigate cross-informant concordance of the BPFSC with newly developed parent version
- Investigate criterion validity with measues of Axis I

Participants

- N = 171 2nd-12th graders
- 48.5% ages 8-12; 51.5% ages 13-18
- 62% European Americans, 14% Hispanics, 11% African Americans, 10% Asian Americans, 2% Middle Eastern, 1% other
- Primarily middle class

Table 2. Spearman correlation coefficients for psychopathology measures

Psychopathology YSR problem scale	Psychopathology							Borderline Features (BPFS)	
	CBCL problem scale							Child	Parent
	Total	Affective	Anxiety	Somatic	ADHD	ODD	CD		
1. Total	.27**	—	—	—	—	—	—	.63**	.33**
DSM problem									
2. Affective	—	.36**	—	—	—	—	—	.49**	.22**
3. Anxiety	—	—	.14	—	—	—	—	.46**	.21**
4. Somatic	—	—	—	.08	—	—	—	.29**	.16*
5. Attention	—	—	—	—	.37**	—	—	.49**	.23**
Deficit/Hyperactivity									
6. Oppositional Defiant	—	—	—	—	—	.28**	—	.41**	.32**
7. Conduct	—	—	—	—	—	—	.33**	.47**	.24**
Borderline Features (BPFS)									
8. Child	.21**	.15	.15	.13	.20*	.15	.14	—	.24**
9. Parent	.64**	.47**	.33**	.33**	.47**	.54**	.48**	.24**	—

**significant at $p < .001$
*significant at $p < .01$

Table 3. Differences on the YSR between high and low scorers determined by the BPFS-C ($N = 166$)

Variable YSR problem scale	Borderline Features group - child-report				Pearson χ^2	*p*-value	Relative risk
	Control ($N = 132$)		High BPD trait ($N = 34$)				
	Raw	%	Raw	%			
Total					44.74	0.01	6.27
Subthreshold	119	90.15	13	38.24			
Clinical	13	9.85	21	61.77			
DSM-oriented							
Affective					10.6	0.01	2.86
Subthreshold	119	90.15	25	73.53			
Clinical	13	9.85	9	28.13			
Anxiety					14.29	0.01	4.99
Subthreshold	125	94.7	25	73.53			
Clinical	7	5.3	9	26.47			
Somatic					17.13	0.001	2.65
Subthreshold	104	78.79	15	44.12			
Clinical	28	21.12	19	55.88			
ADH					19.22	0.001	3.88
Subthreshold	120	90.91	22	64.71			
Clinical	12	9.09	12	35.29			
OD					8.32	0.05	2.22
Subthreshold	118	89.39	26	76.47			
Clinical	14	10.61	8	23.53			
Conduct					23.5	0.001	4.59
Subthreshold	121	91.67	21	61.77			
Clinical	11	8.33	13	38.24			

Note: Relative risk > 2.0 represents a reliable group difference.

Table 6. Differences on the YSR between high and low scorers determined by the BPFS-P ($N = 161$)

Variable YSR problem scale	Borderline Features group - parent-report				Pearson χ^2	*p*-value	Relative risk
	Control ($N = 125$)		High BPD trait ($N = 36$)				
	Raw	%	Raw	%			
Total					8.79	0.01	2.43
Subthreshold	105	84	22	61.11			
Clinical	20	16	14	38.89			
DSM-oriented							
Affective					1.68	0.2	1.74
Subthreshold	111	88.8	29	80.56			
Clinical	14	11.2	7	19.44			
Anxiety					1.15	0.28	1.74
Subthreshold	115	92	31	86.11			
Clinical	10	8	5	13.89			
Somatic					0.39	0.54	1.19
Subthreshold	90	72	24	66.67			
Clinical	35	28	12	33.33			
ADH					1.96	0.16	1.74
Subthreshold	109	87.2	28	77.78			
Clinical	16	12.8	8	22.22			
OD					21.75	0.01	5.64
Subthreshold	117	93.6	23	63.89			
Clinical	8	6.4	13	36.11			
Conduct					3.17	0.08	1.95
Subthreshold	109	87.2	27	75			
Clinical	16	12.8	9	25			

Note: Relative risk > 2.0 represents a reliable group difference.

Conclusions

- Modest, but significant agreement between parents and children (similar to most studies: e.g. Achenbach et al., 1987 .25)
- Teens themselves report significantly higher means of BPD compared to parents
- Cross method analyses show strong relationship with externalizing behavior problems

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THE CRITERION VALIDITY OF THE BORDERLINE PERSONALITY FEATURES SCALE FOR CHILDREN IN AN ADOLESCENT INPATIENT SETTING

Bonny Chang, MEd, Carla Sharp, PhD, and Carolyn Ha, BS

Aims

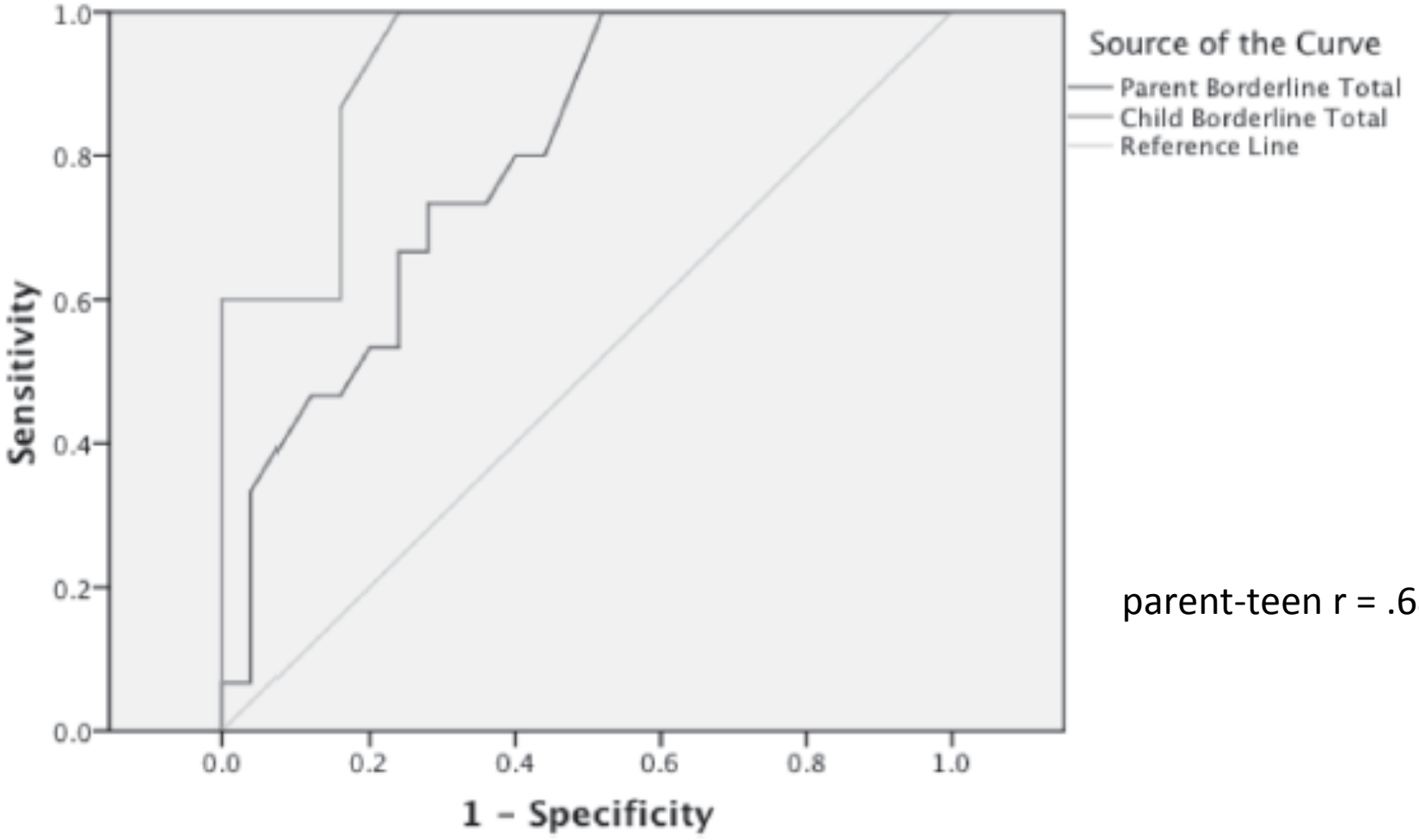
- Criterion validity of the BPFSC against standardized interview

Participants

TABLE 1. Demographic and Clinical Characteristics Across BPD Subgroups

	No BPD (n = 31)	BPD (n = 20)
Demographics		
Age in years: Mean (*SD*)	16 (1)	16 (1)
Males: n (%)	18 (58.1)	4 (20)
Females: n (%)	13 (41.9)	16 (80)
White: n (%)	28 (90.3)	16 (80)
Hispanic: n (%)	1 (3.2)	3 (15)
Asian: n (%)	1 (3.2)	1 (5)
African American: n (%)	1 (3.2)	0 (0)
Comorbid diagnoses: n (%)		
Mood disorder	21 (67.7)	17 (85)
Anxiety disorder	19 (61.3)	11 (55)
Substance use disorder	13 (41.9)	10 (50)
GAF: Mean (*SD*)	49.4 (5.8)	49.7 (6.4)
Total scores: Mean (*SD*)		
BPFS-C	59.45 (11.88)	79.45 (12.50)
BPFS-P	64.67 (14.51)	78.20 (9.68)

Notes. Subgroup determined by CI-BPD diagnosis. Comorbid diagnoses and GAF were evaluated at time of discharge.



parent-teen r = .68

FIGURE 1. ROC curve of the overall sample. There were 15 positive cases and 25 negative cases for BPD (based on the CI-BPD diagnosis). Thirteen adolescents were missing either a BPFS-C or BPFS-P. The AUC of the BPFS-P is .795 (SE = .070; $p = .002$), indicating moderate accuracy in discriminating adolescents with BPD. The AUC of the BPFS-C is .931 (SE = .038; $p < .001$), indicating high accuracy.

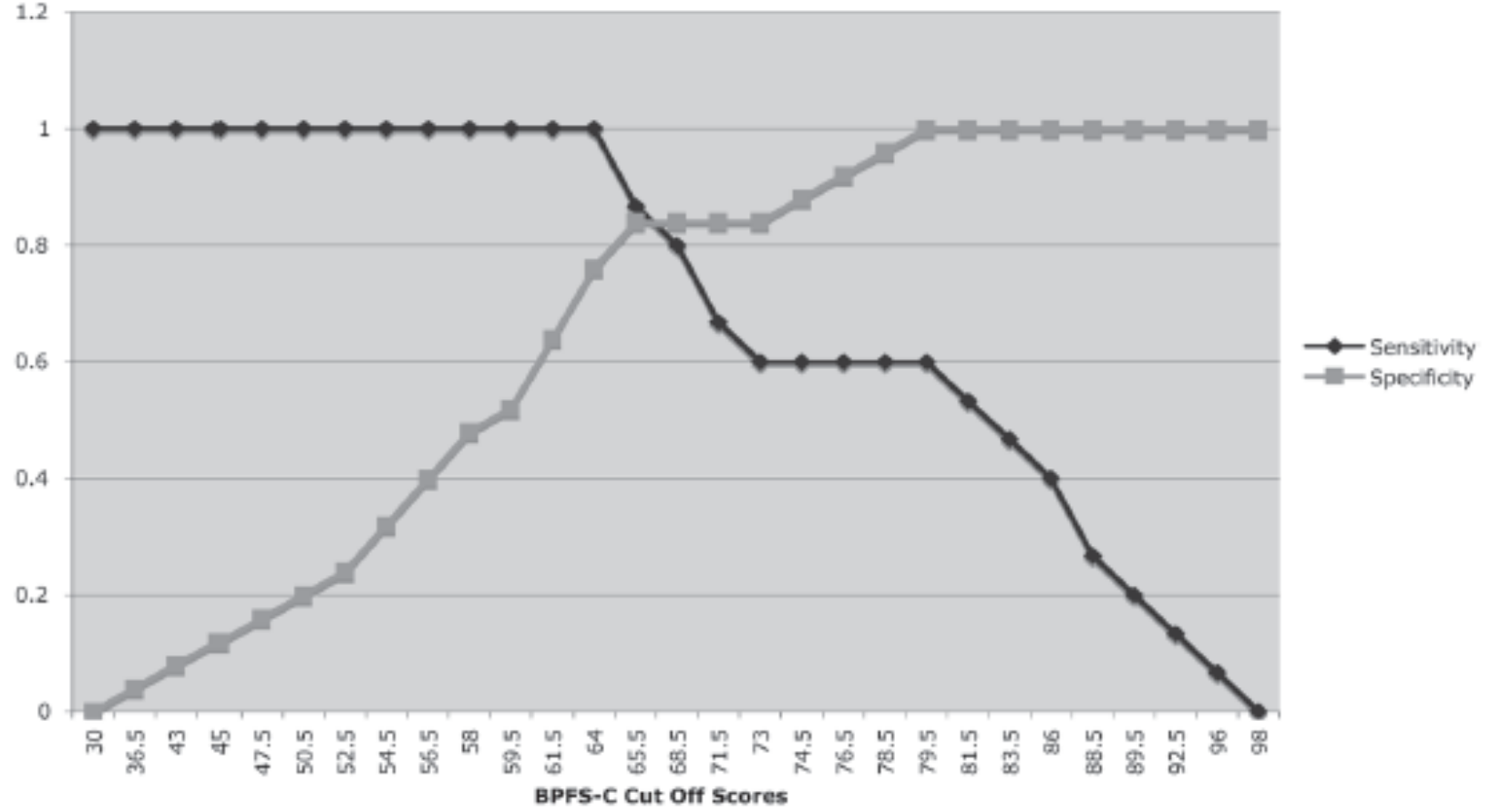


FIGURE 2. Sensitivity and specificity plotted against different cut-off scores on the BPFS-C. The optimal cutpoint is determined by the intersect point of sensitivity and specificity.

CI-BPD

Available online at www.sciencedirect.com

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Borderline personality disorder in adolescents: evidence in support of the Childhood Interview for *DSM-IV* Borderline Personality Disorder in a sample of adolescent inpatients

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[b]*The Menninger Clinic, Houston, TX 77080, USA*

Before we begin, I want to point out that the questions in this interview concern the past two years of your life or the period since you were (APPROPRIATE AGE) and were in the (APPROPRIATE YEAR IN SCHOOL) grade. I also want to point out that I'm mainly interested in learning about feelings, thoughts, and behaviors that have been typical for you during this two-year period. However, I will be asking you a number of questions about specific things that you may have done only when you were particularly upset.

BORDERLINE PERSONALITY DISORDER

During the past two years, have you ...

1. ... felt very angry a lot of the time?

   How about often felt really angry inside but managed to hide it so that other people didn't know about it?

   Frequently behaved in an angry manner (e.g., often teased people or said mean things, frequently yelled at people, repeatedly broken things)?

   How about become very angry and gotten into physical fights with someone you're close to?

   (Inappropriate, intense anger or difficulty controlling anger, e.g., frequent displays of temper, constant anger, recurrent physical fights: 2=definitely present, 1=probably present, 0=absent)

Aims

- Internal construct validity
- Inter-rater reliability
- Criterion validity (BPFS-C; PAI; clinician diagnosis; YSR, CBCL, CDISC, DSHI, DERS)
- Categorically and dimensionally

Participants

- N = 190
- Mean age 15.39 (SD = 1.45)
- 113 (59%) females
- 91.6% Caucasian

Internal construct validity

- CFA: 1-factor model showed adequate fit
  - $\chi^2(27) = 55.22$, $p < .001$
  - RMSEA = .07
  - CFI = .96
  - TLI = .94
- CFA: Standardized factor loadings ranged from
  - unstable relationships (.79)
  - identity disturbance (.75)
  - abandonment fears (.74)
  - affective instability (.74)
  - suicidal behaviors (.67)
  - uncontrolled anger (.62)
  - chronic emptiness (.61)
  - transient paranoid ideation (.60)
  - impulsivity (.60)
- Internal reliability: Cronbach's alpha - .80
- Inter-rater reliability (15%): Kappa = .89

Criterion validity

- Clinician diagnosis: Kappa = .34; p < .001
- Higher means on
  - BPFSP (*t(171)* = -2.59; *p* = .01)
  - BPFSC (*t(183)* = -6.86; *p* < .001)
- Higher means on the PAI-A Borderline Features scale (*t(165)* = -7.15; *p* < .001)
  - affective instability (*t(165)* = -6.79; *p* < .001)
  - identity problems (*t(165)* = -5.13; *p* < .001)
  - negative relationships (*t(165)* = -5.32; *p* < .001)
  - self-harm (*t(165)* = -5.37; *p* < .001)

Criterion validity

	CIBPD	YSR Internal	YSR External	CBCL Internal	CBCL External	DERS	PAI-A BOR	BPFSC	BPFSP	DSHI
CIBPD	1									
YSR Internal	.416**	1								
YSR External	.541**	.324**	1							
CBCL Internal	.272**	.442**	0.139	1						
CBCL External	.264**	-.161*	.521**	.161*	1					
DERS	.552**	.664**	.427**	.319**	0.057	1				
PAI-A BOR	.657**	.655**	.577**	.374**	.207*	.703**	1			
BPFSC	.599**	.548**	.605**	.244**	.269**	.698**	.815**	1		
BPFSP	.279**	-0.045	.281**	.297**	.689**	0.088	.264**	.330**	1	
DSHI	.494**	.371**	.343**	.226**	0.106	.465**	.498**	.464**	0.134	1

Criterion validity

- Higher means on
  - CBCL internalizing ($t(181) = -2.28$; $p = .02$)
  - CBCL externalizing ($t(181) = -3.00$; $p = .003$)
  - CBCL total problems ($t(181) = -3.20$; $p = .002$)
- Higher means on
  - YSR internalizing ($t(186) = -3.59$; $p < .001$)
  - YSR externalizing ($t(186) = -5.88$; $p < .001$)
  - YSR total problems ($t(186) = -6.20$; $p < .001$)
- Higher means in
  - suicidal ideation ($t(165) = -4.78$; $p < .001$)
  - NSSI ($t(183) = -4.74$; $p < .001$)
  - emotion dysregulation ($t(188) = -6.13$; $p < .001$)

Criterion validity

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CIBPD	1									
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BPFSP	.279**	-0.045	.281**	.297**	.689**	0.088	.264**	.330**	1	
DSHI	.494**	.371**	.343**	.226**	0.106	.465**	.498**	.464**	0.134	1

Criterion validity

- Over-represented for Axis I psychopathology as measured by CDISC:
  - anxiety ($\chi^2 = 5.25$; $df = 1$; $p = .02$)
  - depressive ($\chi^2 = 5.78$; $df = 1$; $p = .02$)
  - eating ($\chi^2 = 5.23$; $df = 1$; $p = .02$), and
  - externalizing disorders ($\chi^2 = 11.16$; $df = 1$; $p = .001$).
- However, patients with BPD were not over-represented for bipolar disorders ($\chi^2 = 2.16$; $df = 1$; $p = .14$).

MSI; Noblin, Sharp & Venta (under review)

MSI Questionniare

Date: _____
SUBID: _____

1. Have any of your closest relationships been troubled by a lot of arguments or repeated breakups?	YES	NO
2. Have you deliberately hurt yourself physically (e.g., punched yourself, cut yourself, burned yourself)? How about made a suicide attempt?	YES	NO
3. Have you had at least two other problems with impulsivity (e.g., eating binges and spending sprees, drinking too much and verbal outbursts)?	YES	NO
4. Have you been extremely moody?	YES	NO
5. Have you felt very angry a lot of the time? How about often acting in an angry or sarcastic manner?	YES	NO
6. Have you often been distrustful of other people?	YES	NO
7. Have you frequently felt unreal or as if things around you were unreal?	YES	NO
8. Have you chronically felt empty?	YES	NO
9. Have you often felt that you had no idea of who you are or that you have no identity?	YES	NO
10. Have you made desperate efforts to avoid feeling abandoned (e.g., repeatedly called someone to reassure yourself that he or she still cared, begged them not to leave you, clung to them physically)?	YES	NO

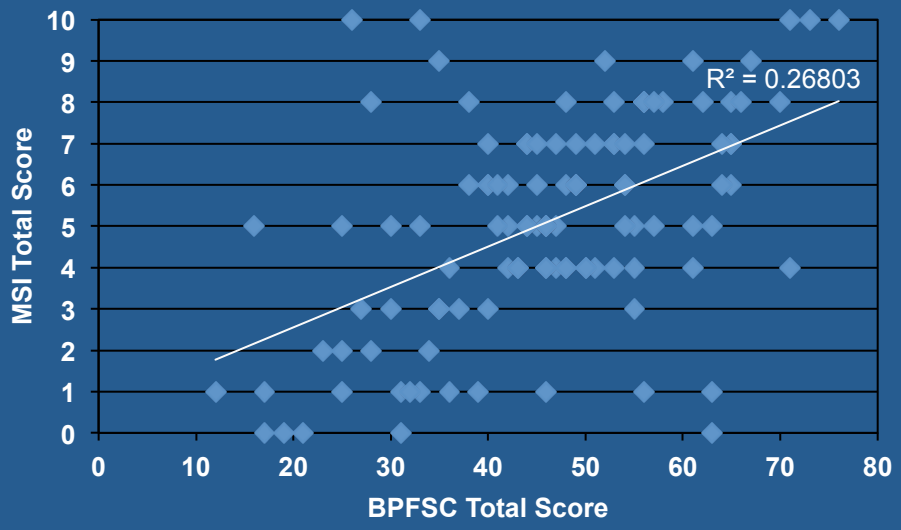
Aim

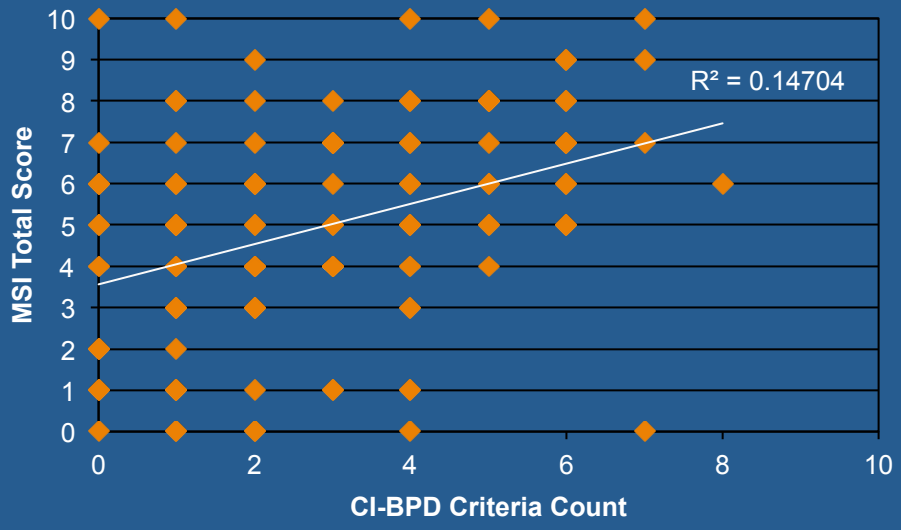
- To establish the criterion validity of the MSI-BPD in predicting CIBPD diagnosis and establish a clinical cutoff score for the MSI-BPD in predicting CIBPD diagnosis.

Participants

- N = 118 inpatients
- Mean age 14.64 (SD = 1.44)
- 64.4% female
- 38.1% Hispanic; 30.5% African-American; 27.1% White; 2.5% Multiracial; and 0.8% other.

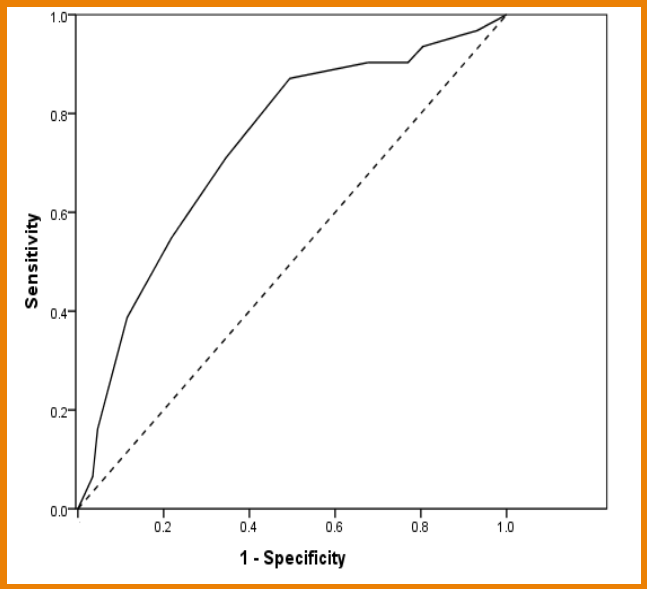
Results



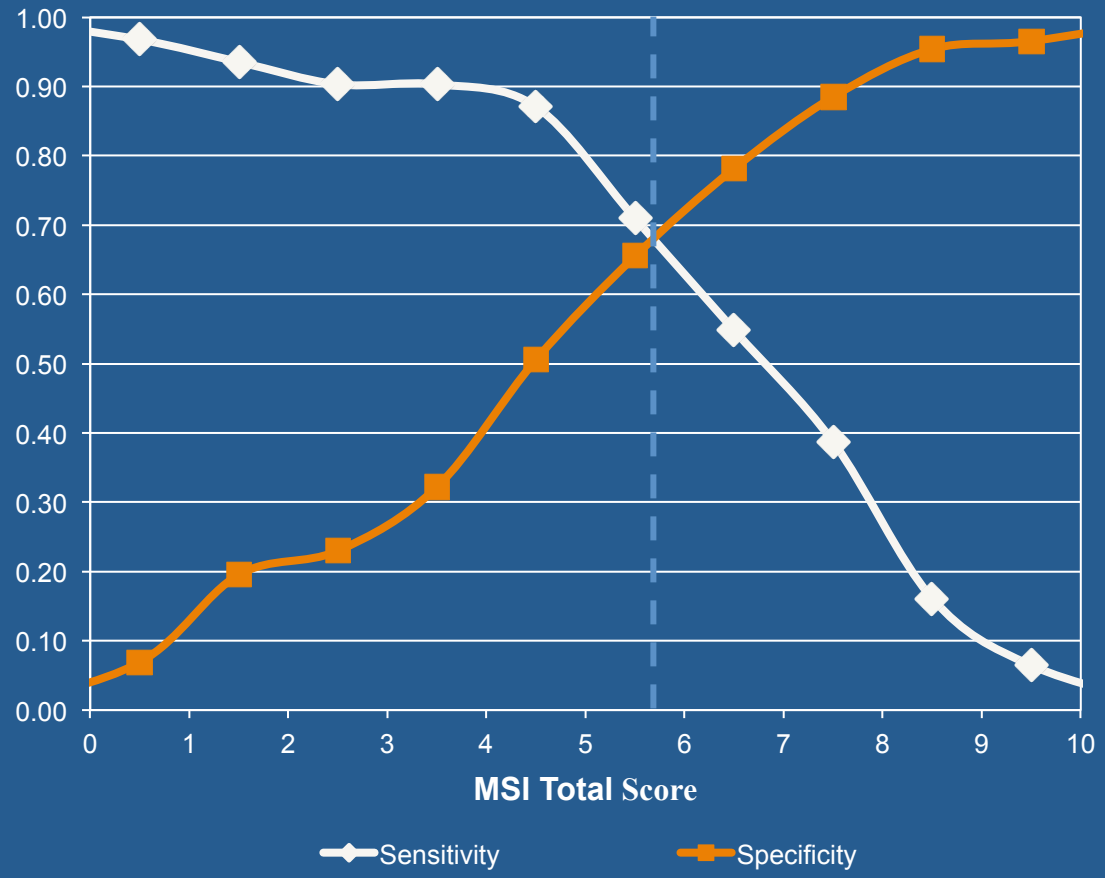


- MSI-BPD highly correlated with BPFSC (r = .52, p < .001)
- M_{BPFSC} = 46.04
- MSI-BPD highly correlated with CI-BPD (r = .38, p < .001)
- CI-BPD dichotomous: M_{BPD} = 6.45; $M_{\text{Non-BPD}}$ = 4.44; t = -3.821, p < .001; d = -0.81)

Results



AUC = 0.733
(*SE* = .053, *p* < .001)
moderate accuracy



Our work so far

- Can one accurately assess and identify BPD in children and adolescents?
- How does one understand the development or early precursors of BPD in children and adolescents?

Our work so far

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Our work so far

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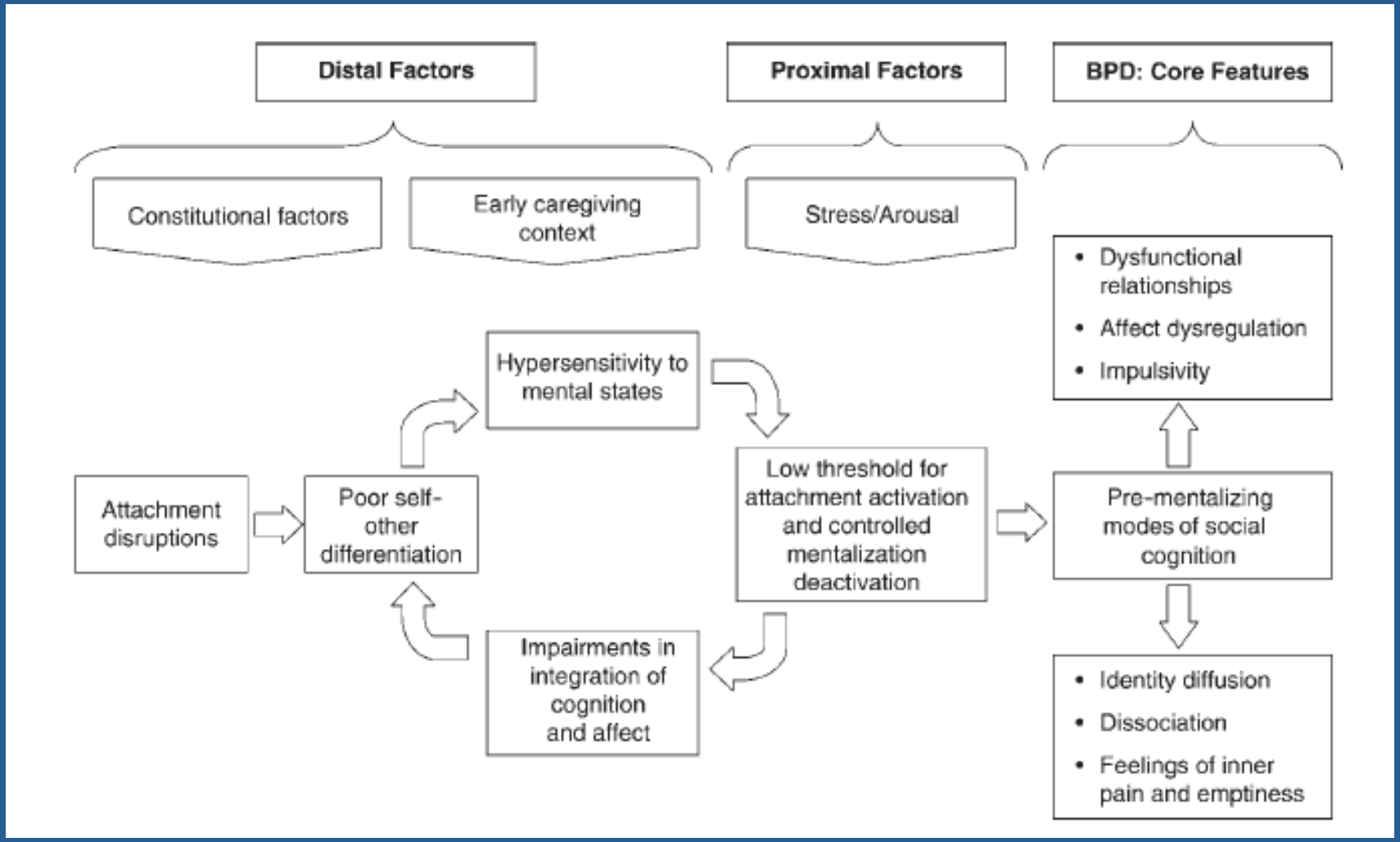
Etiological pathway: Interpersonal functioning

- "Stop walking on eggshells"; "I hate you – don't leave me"
- Greater number of breakups (Labonte & Paris, 1993)
- Impairment in social relationships (Skodol et al., 2002)
- Lower marital satisfaction (Bouchard & Sabourin, 2009)
- Prospective (CIC; Chen et al., 2004)
- Children: hostile attribution biases; enmeshment with best friends (Crick et al., 2005)

DSM interpersonal functioning

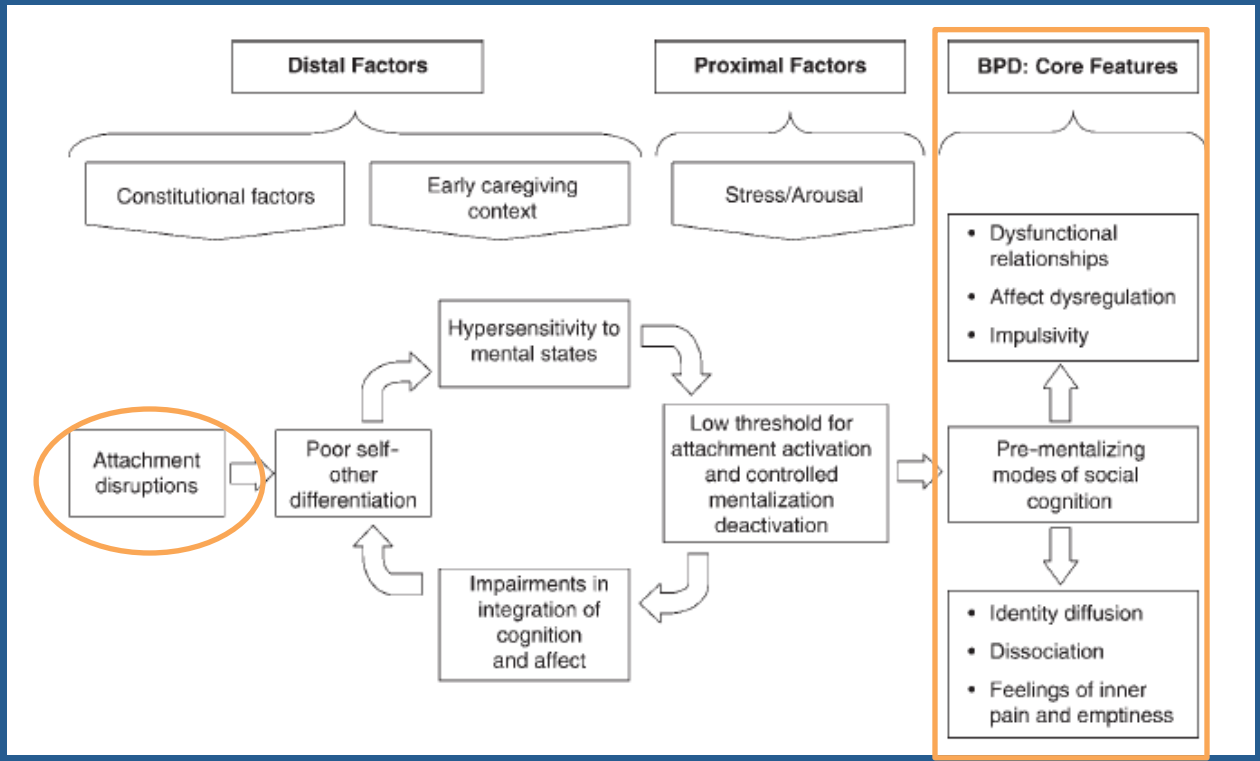
- #1: Frantic efforts to avoid real or imagined abandonment
- #2: A pattern of unstable and intense interpersonal relationships characterized by alternating between extremes of idealization and devaluations
- #3: identity disturbance manifests itself most often in situations in which an individual feels a lack of a meaningful relationships, nurturing and support
- #4: impulsivity includes unsafe sex and anger outbursts in the context of relationships
- #5: suicidal behaviors often precipitated by threats of separation or rejections
- #6: affective instability criterion reflect the individual's extreme reactivity to interpersonal stresses
- #8: anger often elicited when a caregiver or lover is seen as neglectful, withholding, uncaring, or abandoning

Advancement in treatment follows from improved etiological understanding



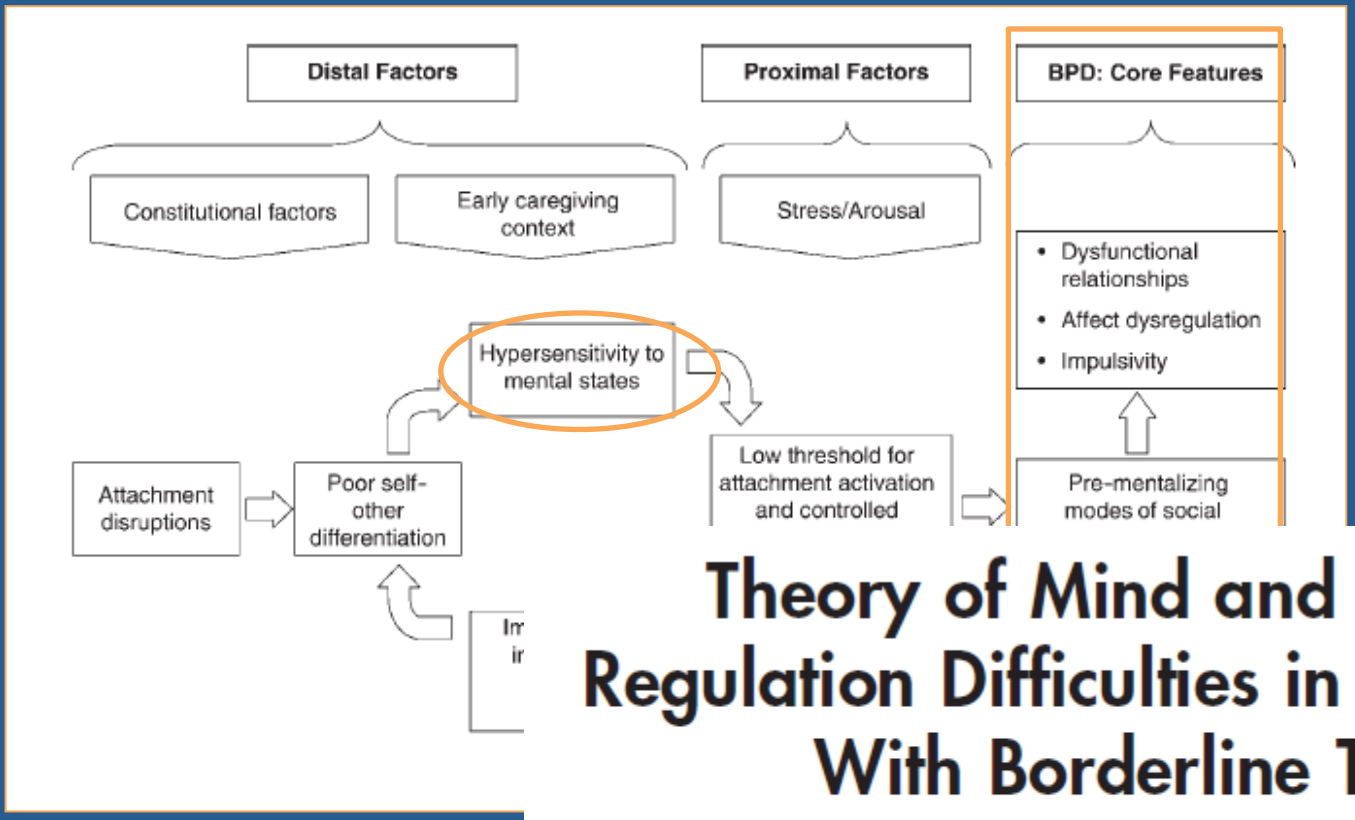
Fonagy & Luyten, 2009

Insecure attachments

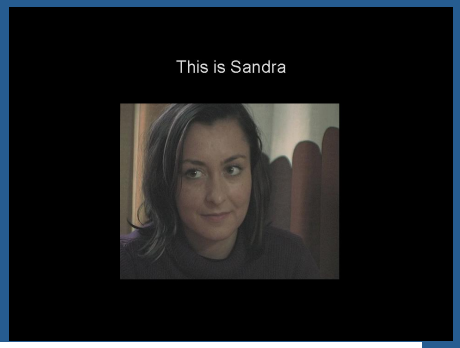


- Part of early conceptualizations (Gunderson, 1984; Kernberg, 1967)
- Cross-sectional and retrospective studies in adults (Levy, 2005)
- Prospective studies showing attachment disturbance in childhood predict BPD in adulthood (Bezirganian et al., 1993; Carlson et al., 2009)
- No studies in teens

Hypermentalizing



Sharp et al., 2011, JACAAP



Theory of Mind and Emotion Regulation Difficulties in Adolescents With Borderline Traits

Carla Sharp, Ph.D., Heather Pane, M.A., Carolyn Ha, B.S., Amanda Venta, B.A., Amee B. Patel, M.A., Jennifer Sturek, Ph.D., Peter Fonagy, Ph.D.

You will be watching a 15 minute film. Please watch very carefully and try to understand what each character is feeling or thinking.

Now, you will meet each character.

This is Sandra

This is Betty

This is Cliff

This is Michael

You will be watching a 15 minute film. Please watch very carefully and try to understand what each character is feeling or thinking.

Now, you will meet each character.

This is Sandra

This is Betty

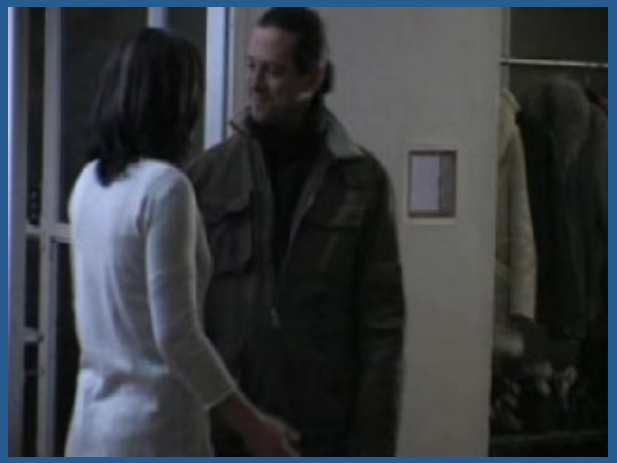
This is Cliff

This is Michael

The film shows these four people getting together for a Saturday evening.

The movie will be stopped at various points and some questions will be asked. All of the answers are multiple choice and require one option to be selected from a choice of four. If you are not exactly sure of the correct answer, please guess.

When you answer, try to imagine what the characters are feeling or thinking at the very moment the film is stopped.



Clip A from Scene 1:

A young and attractive woman named Sandra opens the front door.

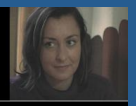
Clip B from Scene 1:

Upon opening the door, a man, who looks to be around the same age as Sandra, enters the house.

Clip C from Scene 1:

Before she can answer, he tells her that she looks terrific. He asks whether she did something with her hair.

1. What is Sandra feeling?



a. her hair does not look that nice

b. she is pleased about his compliment

c. she is exasperated about Michael coming on too strong

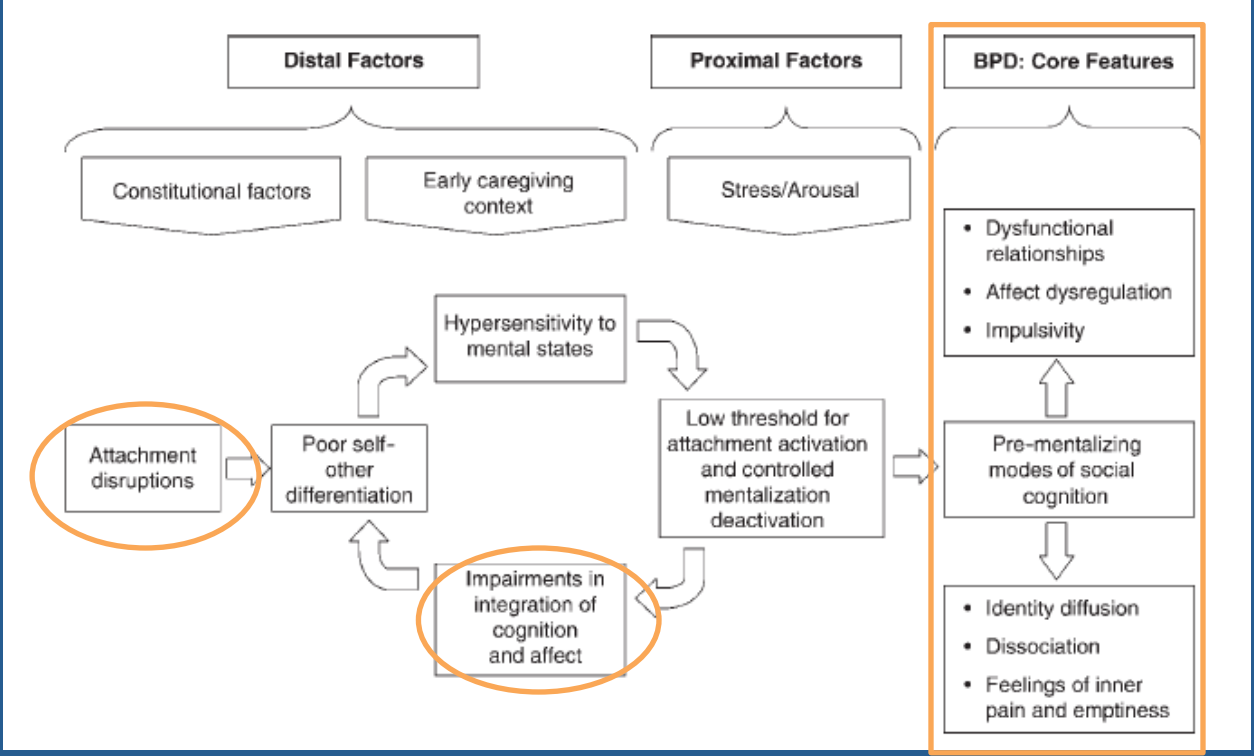
d. she is flattered but somewhat taken by surprise

Clip D from Scene 1:

Sandra touches her hair and starts to say something but the young man compliments her by telling her that her hair looks very classy.

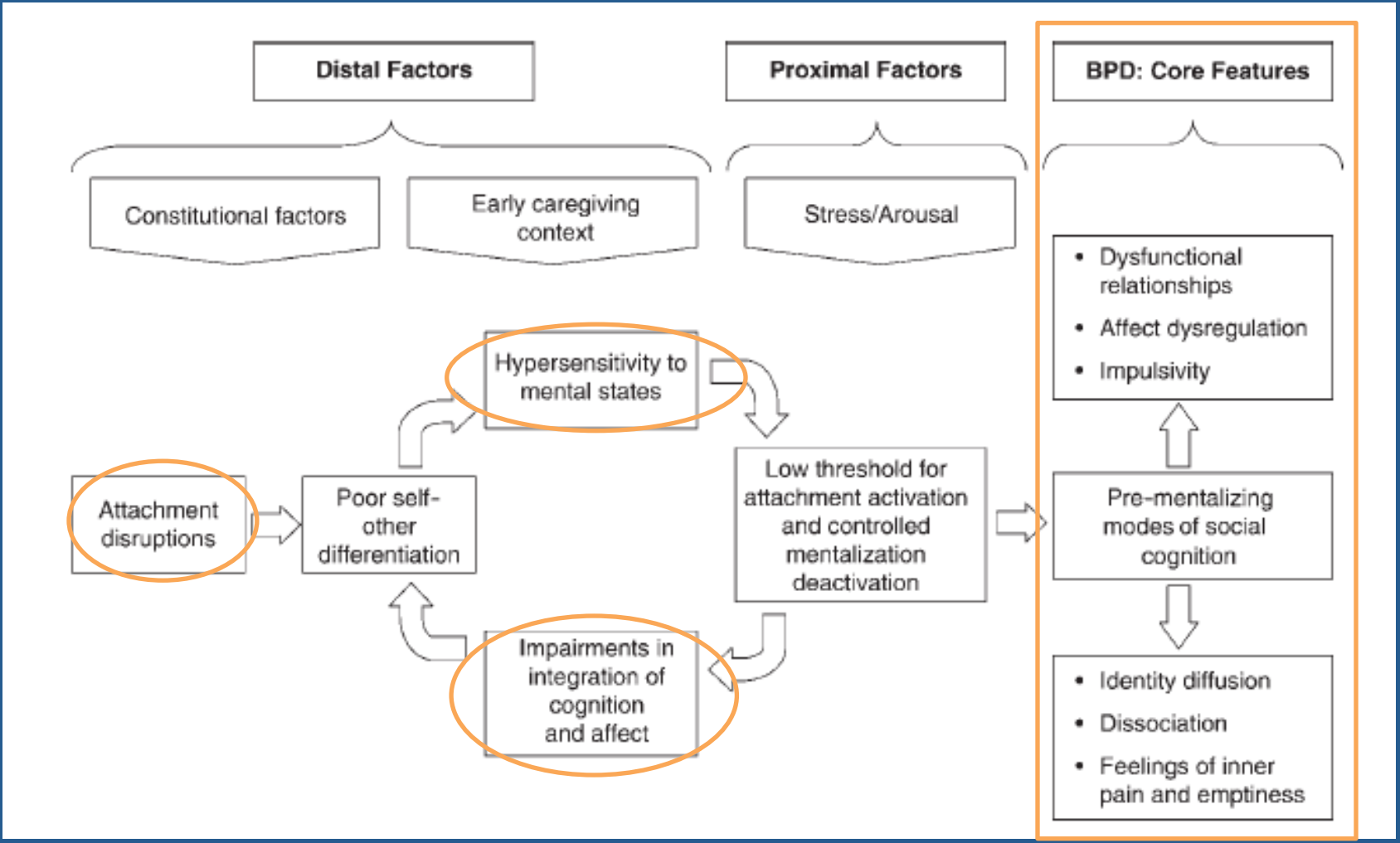
The movie then stops and subjects are asked to answer the following question

Emotion dysregulation



- Biosocial theory (Linehan, 1993)
- Developmental studies linking attachment and emotion regulation (Cassidy, 1994; Mikulincer et al., 2003)
- Clear link between emotion dysregulation and BPD in adults (Putnam & Silk, 2005) and adolescents (Hankin et al., 2011).
- Fonagy's MZ model of BPD
- No studies in teens examining attachment, MZ, ER in teens

Aims of the study



Participants

- N = 259 (mean age15.42, SD = 1.43)
- 63.1% females
- Inclusion criteria
  - IQ>70
  - English proficiency
  - 12-17
  - No psychosis/ASD
- 31% (n = 80) met criteria for BPD
- Severity of the sample
  - 86.9% mood disorder
  - 69.9% anxiety disorder
  - 28.6% disruptive behavior disorder
  - 39.4% substance abuse or dependence
  - Modal number of diagnosis = 2
  - 23% one or more suicide attempts the last year
  - 37.8% reported cutting during the past year; 44.4% lifetime cutting
  - YSR: 54% internalizing; 43% externalizing

Measures

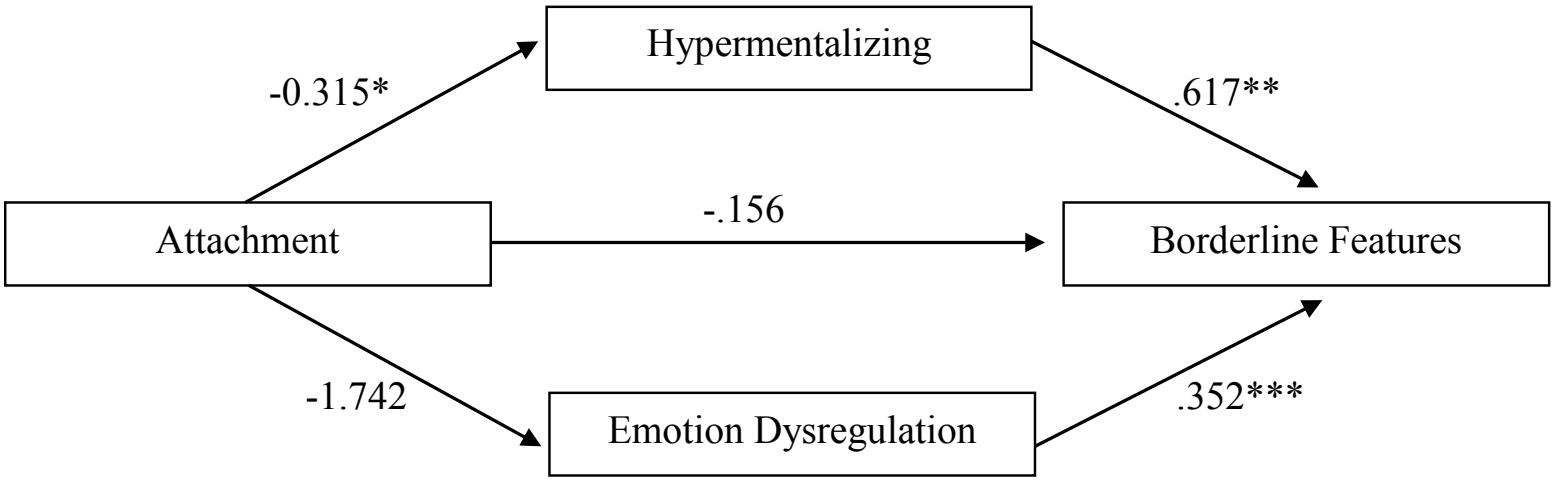
- Child Attachment Interview (Target et al., 2007)
- Movie Assessment of Social Cognition (Dziobek et al., 2006)
- Difficulties in Emotion Regulation Scale (Gratz & Roemer, 2004)
- Borderline Personality Disorder Features Scale (Crick et al., 2005)

Bivariate correlations

	Attachment	Hyper MZ	DERS	BFSC	Age
Attachment	-	-	-	-	-
Hyper MZ	-.202**	-	-	-	-
DERS	-.107	.129*	-	-	-
BPFSC	-.118	.220***	.704***	-	-
Age	.176**	-2.14***	.026	-.038	-

* $p < .05$. ** $p < .01$. *** $p < .001$.

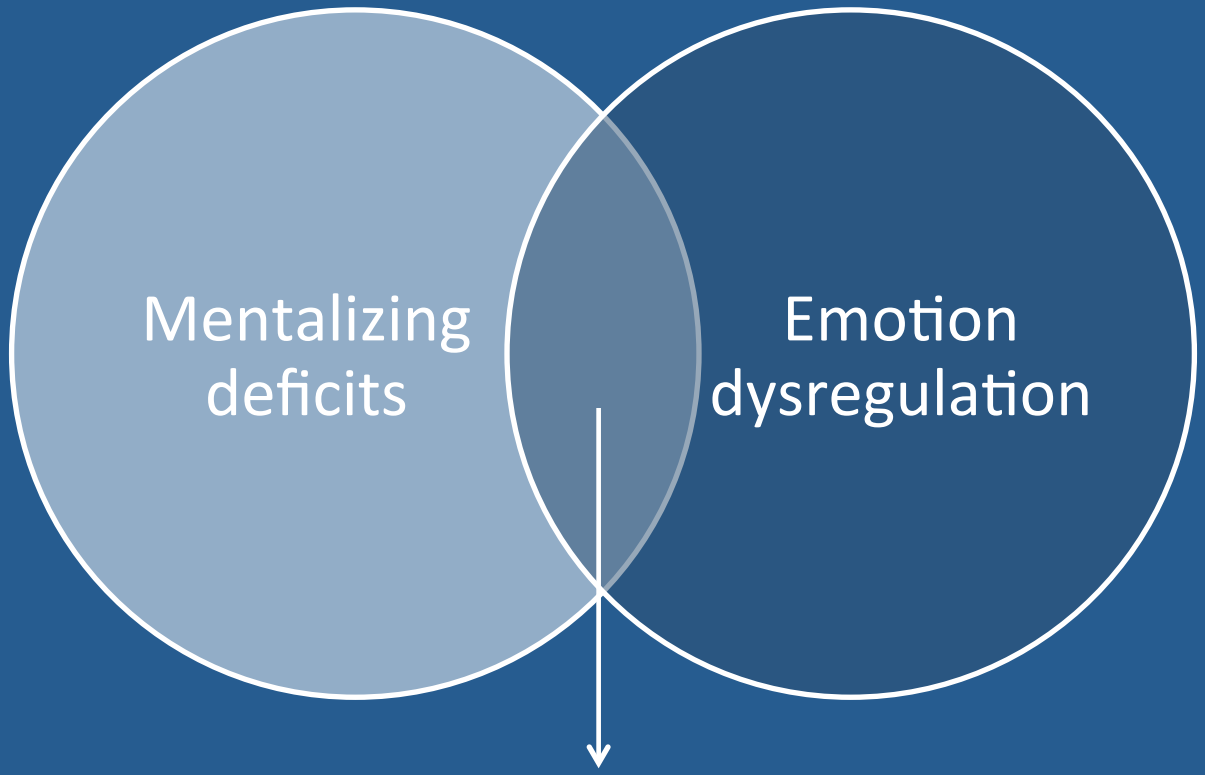
Multi-mediational model



Conclusions

- First study to empirically test models that examine the proposition that theory of mind or mentalizing should be predicted by or relate to attachment schemas in adolescence (see e.g. Dykas & Cassidy, 2011; Sharp, Fonagy, & Allen, 2012).
  - positive social feedback (Cassidy, et al., 2003)
  - positive memories of social interactions with attachment figures (Dykas, et al, 2005)
  - perceive and generate expectations and attributions about others in a negatively biased schematic manner (Zimmermann, 1999).
- First study that explicitly tests Fonagy's developmental model of BPD where the potentiating affect of attachment security in derailing the development of optimal mentalizing capacity is proposed.
- First study to have MZ and ER compete in a mediational model.

Hypermentalizing theory of BPD



Hypermentalizing

Sharp, in press

Our work so far

- Can one accurately assess and identify BPD in children and adolescents?
- How does one understand the development or early precursors of BPD in children and adolescents?

When is a disorder valid?

Robins & Guze (1970):

- Clinical description (establishing that disorder represents a syndrome of symptoms that can be empirically shown to co-occur)
- Lab studies (biological substrate of the disorder)
- Delimitation from other disorders (disorders are divided into discreet categories)
- Follow-up studies (common course to symptom patterns across individuals)
- Family studies (genetic basis of the biological phenomenon associated with the disorder)


RECOVERY