

*A Review of Risk Factors for Suicidal  
Behavior in Borderline Personality  
Disorder*

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# Recurrent Suicidal Behavior in BPD

- The “behavioral specialty of the borderline patient” (Gunderson & Ridolfi,2001)
- Attempts in ~70% ; ~ 3.3 attempts/pt.
- Suicide completion in 3-10%
- Co-morbidity with BPD increases risk:
  - half of hospitalized parasuicides have BPD,
  - one-third of completed suicides have BPD (Soderberg, 2001; Isometsa et.al.1996)

# Risk Factors for Suicidal Behavior

- Suicidal behavior is multi-determined. APA Guidelines (2003) list over 60 risk factors associated with suicide.
- Risk factors influence the likelihood of suicidal behavior, a statistical prediction.
- Risk factors differ for attempters vs. completers; high vs. low lethality attempters (Soloff et.al.2005).

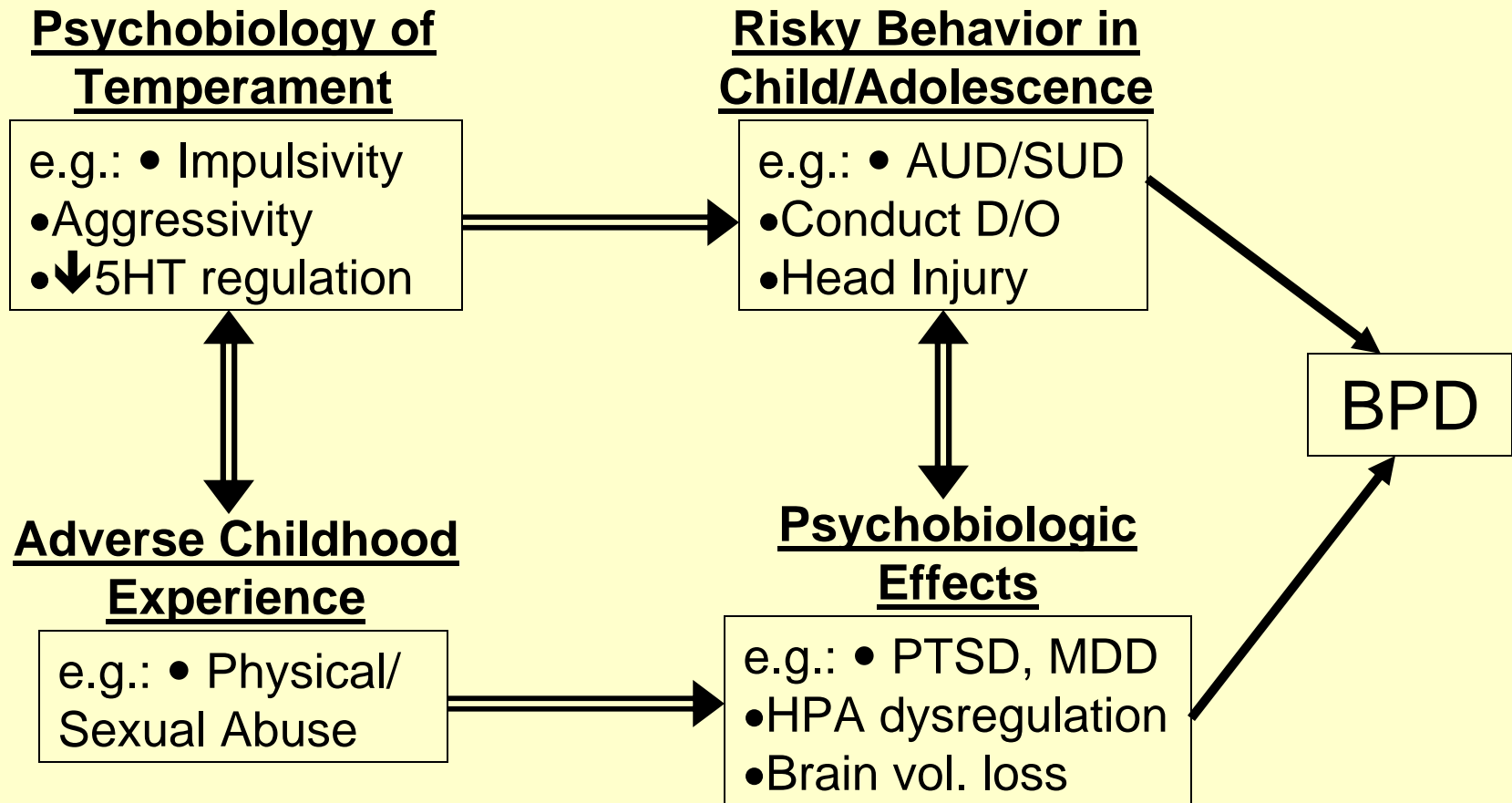
# Risk Factors for Suicidal Behavior

- Some are “proximal” to the behavior, some are “distal.” Some are changeable, others not.
- Risk factors change over time (e.g. Fawcett et.al. 1990). The “suicidal process” in BPD may last for months or decades (Runeson et.al. 1996, Paris & Zweig-Frank, 2001).
- Addressing risk factors is rational treatment, but which ones, and how to treat?

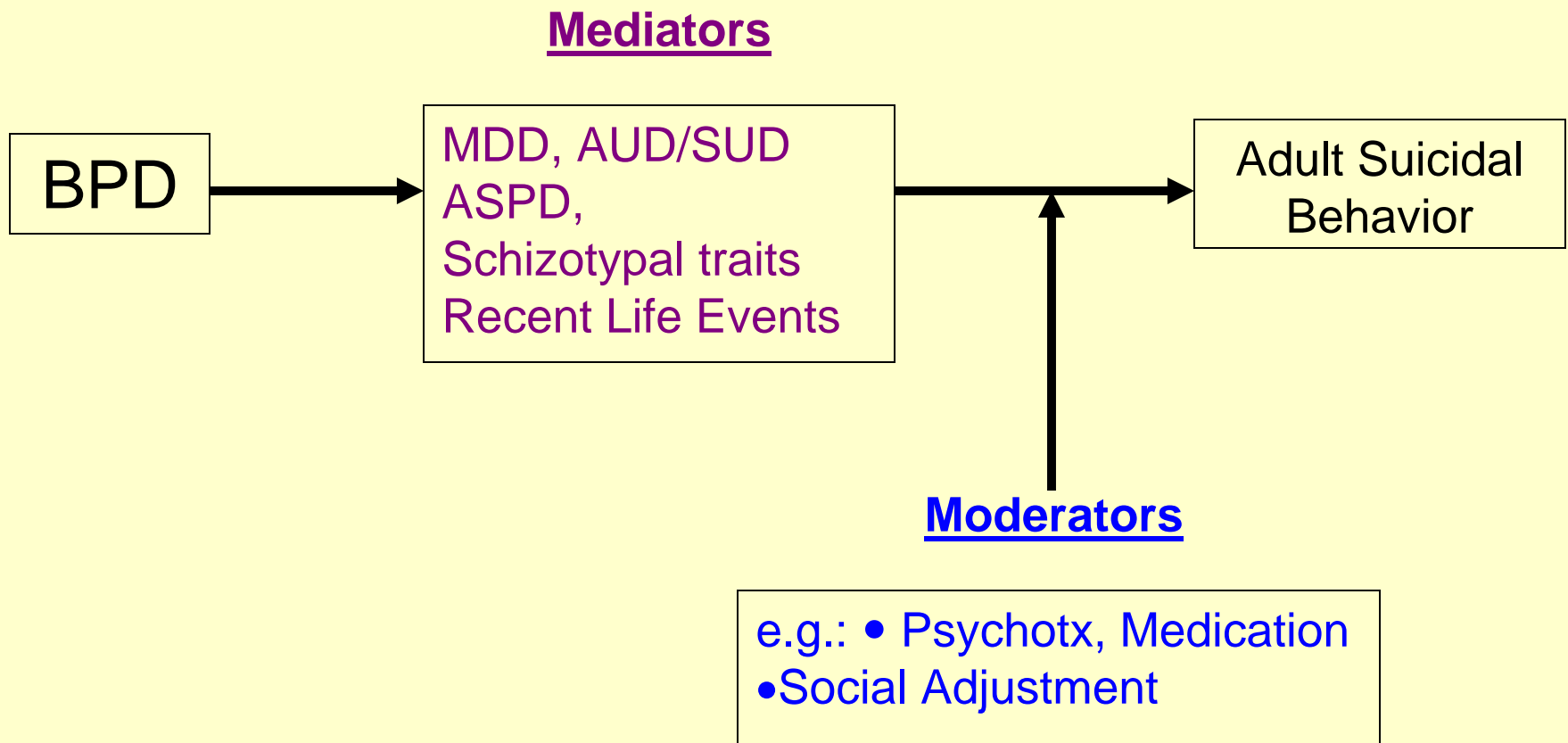
# Problems with identifying risk factors in BPD

- BPD is heterogeneous ( 5 of 9 criteria = 256 possible combinations)
- Some (but not all) BPD dimensions are risk factors (e.g. affect. instability, impulsivity)
- Common co-morbid dxs are risk factors: (e.g. MDD, SUD) (Zanarini et.al.1998).
- Social and vocational consequences of BPD are risk factors (Cloninger et.al. 1997).

# A Theoretical Model of Suicidal Behavior: BPD as a vulnerable phenotype



# A Theoretical Model of Suicidal Behavior in BPD



## Methods of Study

- Retrospective Studies of Completers:
  - questionable reliability of diagnoses, narrow range of predictors, variable follow-up.
- Cross-sectional Studies of Attempters:
  - Standardized, systematic assessments at one point in time. Can't define predictive value of discriminating variables.

## Methods (cont.)

- Prospective study: The “Gold Standard”
  - Standardized, systematic assessments at baseline
  - Follow-up at fixed intervals
  - Survival analysis to determine likelihood of attempt over time as a function of assessed variables (Leon et.al.1990).

# Review of Risk Factors in BPD:

## 1. Demographic variables

- Lower SES, less education, lower income, older age: associated with high lethality attempts/suicide completion. (e.g. Paris et.al.2001)
- Gender, Race, Religion, Marital status don't discriminate attempters from non-attempters in our studies,
- Children are not protective in our BPD studies (assoc. with high lethality attempts ) (Soloff et.al.2005)

## 2. Diagnostic Variables

- Co-morbid MDD, Substance Use Disorders in some studies (but not all):
  - incr. #attempts, lethality, completion.
- Co-morbid Antisocial PD/ antisocial behavior/ “sentence by court”:
  - high lethality attempts, completed suicide
- Co-morbid Schizotypal PD/ # SPD criteria :
  - incr attempts, completion in some studies

### 3. Personality Traits

- Impulsivity, impulsive-aggression: incr. #attempts but not lethality
- Anger is assoc. with low lethality attempts
- “Hysteroid dysphoria”: is assoc. with high lethality attempts
- # BPD criteria/ Cluster B traits:
  - incr. #atts, completion, even after correction for BPD suicide criterion

## 4. Childhood and Family History

- Prolonged (6 mo.) separation from a parent before age 15 years; Loss of parents, parental divorce: incr.#atts or completion
- Childhood sexual abuse (10x incr in odds of an attempt) (Soloff et.al 2002), also assoc. with incr. #atts or completion
- Family History of Substance Abuse: assoc. with high leth. attempts, completed suicide

## 5. Suicide History

- Hx of Prior attempts: predicts future attempts, assoc. with # lifetime attempts, attempt lethality, completed suicide
- Intent to die: High lethality attempts
- Fewer Reasons for Living (Linehan): incr. # attempts
- Self-Injurious Behavior: incr. atts. but not lethality in several studies; completed suicide in one study (Stone 1989)

## 6. Clinical Presentation

- Increased likelihood of attempts:
  - Depressed mood,
  - Hopelessness,
  - Impulsiveness,
  - Aggression,
  - Anxiety symptoms/disorders
  - Poor global functioning (low GAS)

## 7. Social Adjustment

- Poor social adjustment predicts attempts: (e.g. SAS overall score, esp. social/leisure subscales (few friends), and extended-family (few contacts) (Soloff et.al,.2008).
- Interpersonal loss, family conflict, job and financial problems, legal and housing problems: completed suicide in PD pts.
- Social isolation, living alone, loneliness, avoidance of intimacy: completed suicide in BPD (Paris 2001) and PD pts (Heikkinen et.al.1997).

## 8. Treatment history

- Extensive Tx. Hx: hospitalization, number of admissions, OPD psychotherapy, assoc. with high lethality attempts and completed suicide.
- Administrative discharge from hospital can precipitate suicide in BPD (Kjelsberg 1991).
- Completed suicide in Cl.B pts preceded by lack of treatment, no health contacts in prior 3 mos:.. (Isometsa et.al.1996)

## High (n = 44) vs. Low (n = 69) Lethality Attempters

- Older\*, with children\*; less education\* and lower SES\*
- More MDD\*, co-morbid ASPD\*\*, family history of SUD\*
- Greater intent to die\*\* (Suicide Intent Scale), more lifetime attempts\*\*
- More hospitalizations\*\*, time spent inpt.\*\* (Soloff et.al.(2005): (\*p.≤.05, \*\*p.≤.01). Identifies High Lethality attempters with 80% sensitivity, 65.1% specificity

# Predictors of suicide attempts at 12 month follow-up

- N = 137. 26 interval attempters (19%), 92.3% were attempters at baseline.
- Suicide risk increased by:
  - Baseline MDD [RR=13.23, 95% c.i.= 3.38 -51.73, p.<.001]
  - Poor Social Adjustment (SAS-sr) [RR= 6.08, 95% c.i.= 1.68 - 21.96, p.<.01]

## Intermediate term F/U: 18 - 24 mos.

- N = 133. 33 interval attempters (24.8%); 93.9% were attempters at baseline.
- Suicide risk increased by:
  - Hospitalization (prior to any attempt)  
[RR= 3.58, 95% c.i.= 1.55-8.27, p.= .003]
  - Poor Social Adjustment (SAS-sr)  
[RR=2.59, 95% c.i.= 1.23-5.43, p.=.01]

## Within the long term interval: at 2 – 5 years

- N = 122. 17 interval attempters (13.9%); 94.1% were attempters at baseline.
- Suicide risk incr. by:
- Med. visits (prior to any attempt) [RR=7.17, 95% c.i.= 2.47-20.83, p.<.001]
- Prior attempt in 1<sup>st</sup> yr. interval. [RR=4.94, 95% c.i.=1.19-20.53, p.=.03]
- Hospitalization in interval (prior to any attempt) [RR=3.40, 95% c.i.=1.14-10.11, p.=.03]; (Low) GAS at baseline. [RR=0.92, 95% c.i.= 0.87-0.98, p =.01]

## Long term (cont.) : 2 – 5 years

- Decreased risk of suicide attempts:
  - “Any OPD treatment” (includes all psychotherapies +/- meds, and meds alone). [RR=0.24, 95% c.i. = 0.08-0.73, p.=.01]
  - Family Hx of suicide. [RR = 0.27, 95% c.i. = 0.087- 0.84, p.=.02]

## Conclusions

- Younger BPD patients may signal distress through repeated angry, impulsive, low lethality attempts,
- Older patients complete suicide after years of co-morbid depression, treatment, social isolation, loss of family support (Paris, J. 2002).
- Psychosocial adjustment (family/friends) may be the best focus of treatment in long term.