

# Effects on psyche/emotions/relationships/distress

## Part II

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Psy 607:  
Trauma as etiology

## Overview

- Six articles: Brief summary of each
- Common themes: CSA and longitudinal associations, mechanisms of transmission of psychopathology, specificity of psychopathology, mediators, methodology (e.g., correlation, causality)
- Discussion questions for the whole group

## Childhood Maltreatment Increases Risk for Personality Disorders During Early Adulthood

(Johnson, Cohen, Brown, Smailes, & Bernstein, 1999)

### The Study

- A community-based longitudinal study investigating whether childhood maltreatment (physical abuse, sexual abuse, and neglect) increases the risk for DSM-IV personality disorders (PDs) during early adulthood
- Controlled effects of offspring age and sex, difficult childhood temperament, parental education, and parental psychiatric disorders; Assessed during maternal interviews in 1975, 1983, and 1985-1986.
- Combination of self-reports *and* official data obtained from the state registry of child abuse and neglect
- Retrospective self-reports of childhood maltreatment obtained from young adult offspring in 1991-1993

### Results

- Physical abuse associated with elevated antisocial and depressive PD symptoms
- Sexual abuse associated with elevated borderline PD symptoms
- Neglect associated with elevated symptoms of antisocial, avoidant, borderline, narcissistic, and passive-aggressive PDs

## Implications

- Given that childhood physical abuse, sexual abuse, and neglect are differentially related to certain PDs, researchers need to investigate specific etiologic models for each of the different PDs
- Etiologic theories pay little attention to childhood neglect. Current and previous findings suggest that theoretical exploration should be devoted to the harmful effects of childhood neglect
- Still many questions about the mechanisms of association between self-reported childhood maltreatment and PDs

## Childhood Adversities, Interpersonal Difficulties, and Risk for Suicide Attempts During Late Adolescence and Early Adulthood (Johnson, Cohen, Gould, Kasen, Brown, & Brook, 2002)

### The Study

- An investigation based on data from a previous community-based longitudinal study.
- These data were used to investigate the following:
  - Do negative life events or severe interpersonal difficulties during adolescence mediate the association between childhood adversities and suicide attempts during late adolescence or early adulthood?
  - Does maladaptive parenting mediate the association between parental psychiatric symptoms and offspring suicide attempts?
  - Do adolescent psychiatric symptoms mediate the association between childhood adversities and suicide attempts during late adolescence or early adulthood, as indicated by recent research?
  - Participants consisted of 659 families with children ages 1 – 11, who were interviewed in 1975, 1983, 1985 to 1986, and 1991-1993.

## Results

- The following childhood adversities were associated with increased offspring risk for suicide attempts during late adolescence or early adulthood:
  - High levels of school violence
  - Harsh parental punishment
  - Low maternal educational aspirations for their youth
  - Maternal possessiveness and verbal abuse
  - Childhood physical and sexual abuse
- Serious fights with family members were the only negative life events that were significantly associated with increased offspring risk for suicide attempts during late adolescence or early adulthood
- Extreme interpersonal difficulties during middle adolescence mediated the association between maladaptive parenting or abuse during childhood or early adolescence and suicide attempts during adolescence or early adulthood
- Psychiatric disorders during adolescence neither moderated nor mediated the association between maladaptive parenting or abuse during childhood or early adolescence and suicide attempts during late adolescence or early adulthood
- High level of maladaptive parental behavior during childhood and adolescence was associated with the risk for suicide attempts during late adolescence or early adulthood (after controlling for parental psychiatric disorders)

## Implications

- First prospective longitudinal study that investigates this mediational hypothesis in a systematic way
- Findings suggest that high levels of maladaptive parenting or child abuse → difficulty developing social skills to maintain meaningful relationships with peers and adults → tendency to become interpersonally isolated or relate to others in a dysfunctional way → feelings of hopelessness, despair, and suicidal ideation and/or behavior
- Possible to prevent onset of suicidal behavior among adolescents and young adults by raising the awareness among parents, educators, and health professionals about the impact of interpersonal difficulties on the development of such suicidal behavior

Kendler, K. S., Bulik, C. M., Silberg, J. Hettema, J. M., Myers, J., Prescott, C. A. (2000). Childhood sexual abuse and adult psychiatric and substance use disorders in women: An epidemiological and cotwin control analyses. *Archives of General Psychiatry*, 57, 953-959

- Study aimed to examine the association between childhood sexual abuse (CSA) and the development of psychiatric and substance use disorders for women in adulthood. Authors were particularly interested in further clarifying 4 aspects of this association 1) determine the magnitude of the relationship between CSA and adult adjustment, 2) determine if there is a casual relationship between CSA and adult disorders or if the observed association is confounded by other related risk factors (family environment and genetic predisposition, 3) does the observed association reflect a reporter bias, in that persons with disorders may be more likely to recall and report abuse, and 4) does CSA have specific associations with 1 or 2 disorders or is CSA associated with a wide range of disorders?

## Study design

- Sample: Participants were female-female twin pairs who were participating in an ongoing population-based Virginia Twin Registry. Women ages ranged from 17-55. Ethnic breakdown of the sample was not specified though the authors noted that the sample is "broadly representative of white women on the United States."
- Procedure: Twin pairs were included in the present study if both twins responded to mail questionnaire which indicated their willingness to participate in the current study. Data pertaining to CSA were gathered via face to face, mail-in and telephone interviews. Data was collected over about 8 years, though it was not clear what information was collected at which wave. Twins provided information on their own CSA, their own substance and psychiatric disorder and these experiences in their cotwin. Parents reported on their own psychiatric and substance use histories as well as the family environment in which the twins were reared (finances, stress, parent-child relationship etc).
- Analyses: Data was analyzed using logistic regression procedures (correcting for the correlations embedded in the data (not specified). Odds ratios and confidence intervals, yielded from the logistic regressions were examined.

## Results/Conclusion

- Nongenital CSA was significantly associated with increased risk for developing alcohol and other drug dependence. Genital CSA was significantly associated with every disorder except panic disorder and BN. All disorders were significantly associated with intercourse.
- When controlling for family context: the association between CSA and most disorders was reduced...however for panic disorder and BN these association was strengthened. Authors interpreted these results to suggest that little of the association between CSA and adult disorders can be accounted for by parental disorders
- Authors reported that their pattern of findings suggest there is a causal relationship between CSA and psychiatric and substance use disorders in adulthood.
- Authors attempted to rule out the possibility that "reporter bias" was accounting for the observed association. Acknowledged that reports were inconsistent but that this was largely due to the fact that twins (approximately 30%) had not disclosed their CSA experience to anyone

## Some Limitations (identified by the authors)

- Sample was all women- CSA experience may vary across genders
- Modest reliability in CSA self report and Twin report
- Reliability assessment requires the information is available to all informants- this was not the case with CSA experiences
- Retrospective reports of potentially confounding variables such family environment and parental psychopathology
- Analyses did not attempt to examine the temporal relationship between CSA and onset of psychiatric or substance use disorders
- (additional concerns)
- Drawing causal conclusions based on correlational analyses

Nelson et al. (2002).

Association between self reported childhood sexual abuse and adverse psychosocial outcomes: Results from a twin study.

- Study aims to examine the association between CSA and adverse adult outcomes.
- Sample: 1,991 same sex twin pairs (1159 females, 832 males) from an Australian volunteer twin panel. Mean age of sample was around 30 years old (SD= 2.5 years).
- Procedure: Telephone interviews were conducted with both twins between 1996-2000. The twin pairs included in this study represented the "young cohort" of the Australian registry. To be included in this study, both twins had to respond (endorse?) atleast one CSA question.

### Question components:

- Five questions about CSA were used to create a composite CSA score:
  - Forced sexual intercourse or any other form of sexual activity BEFORE the age of 18
  - Any sexual contacts (touching sexual body parts, yours or theirs between, or sexual intercourse) between yourself and anyone other than a family member who was 5 or more years older than you, BEFORE you were 16 years old.
  - Same as #2 but referring to family members, listed parent, stepparent, grandparent, uncle, aunt, brother, sister, cousin.
  - Have you ever been raped: has someone ever had sexual intercourse with you when you did not want to, by threatening you or using some degree of force?
  - (apart form an experience of rape) Have you ever been sexually molested (someone touched or felt your genitals when you did not want them to?)
- A standardized psychiatric interview and an adapted version of Semi-Structured Assessment for the Genetics of Alcoholism (SSAGA) were conducted via telephone.
- Lifetime diagnoses were gathered for MD, Conduct DO, and Alcohol and Nicotine Dependence. Data was also gathered about marital history, suicidal ideations and attempts, traumatic events, parental alcohol related problems, family background and social anxiety.

## Analyses/Results

### Analyses:

- Descriptive analyses were conducted overall and by gender. CSA and a range of outcome variables (including divorce and rape at or after age 18) were assessed using logistic regressions and survival analyses. Odds ratios and confidence intervals were examined.

### Results:

- CSA prevalence rates (at least one item endorsed) were 16.7% (women) and 5.4% (men)
- Survival analyses revealed that CSA was most highly associated with conduct disorder, suicide attempts and rape after age 18
- When comparing CSA discordant pairs, the twin with CSA experiences was at increased risk for all adverse outcomes assessed.

### Read et al., 2001

#### The contribution of early traumatic events to schizophrenia: A traumagenic neurodevelopmental (NT) model

- Article proposes that for some schizophrenic adults, adverse life events/losses/deprivations may “trigger” as well as mold neurodevelopmental abnormalities
- A new diathesis-stress model: for some adults, the diathesis is the abnormal neurodevelopmental process originating in traumatic events in childhood
- TN model (Traumagenic Neurodevelopmental)
  - Neurological and biochemical abnormalities can be caused by child abuse
  - Specifically, over-reactivity of HPA axis, abnormal neurotransmitter systems, and structural brain changes
  - Such trauma-induced abnormalities may contribute to our understanding of various aspects of schizophrenia

## Biopsychosocial model

- Assumption that diathesis is a genetic predisposition
  - Has impeded consideration of relevance of stress
  - Example of a paradigm asking only those questions that confirm its central assumptions
- Extent to which we have achieved a balanced integration of bio-psycho-social actually has declined over the decades (for schizophrenia)
- Need a more longitudinal, inclusive approach to role of stressful life events than the current focus on perinatal events and events immediately preceding the first overt psychotic episode

## Neurodevelopmental theories

- Walker and DiForio (1997) posit that stressors can exacerbate symptoms but do not constitute causal factors
  - “constitutional vulnerability”, heightened sensitivity to stressors
  - Activation of HPA axis is of one of the primary manifestations of the stress response
  - Adrenal cortex, stimulated by ACTH from pituitary, releases glucocorticoids (including cortisol)
    - Basically, exposure to stressors can lead to permanent changes in the HPA axis (impairing the system that serves to dampen HPA activation)
  - Call to clarify the nature of developmental changes in the HPA system, especially response to stress and its relation to symptoms
  - Read et al. argue that exposure to traumatic events in childhood, particularly physical and sexual abuse, may be individual characteristics that predict sensitivity to stressors

## Relationship between childhood abuse and schizophrenia

- Widely assumed that child abuse is more related to depression, anxiety, PTSD, etc. and less related to more severe psychiatric disorders
- Child abuse among psychiatric inpatients
  - In 13 studies of SMI women, 45-92% experienced CPA or CSA
- Child abuse and schizophrenia
  - Research measures: CSA/CPA related to measures of psychosis
  - Clinical diagnoses: Worse outcomes
  - Specific symptomatology: Schneiderian symptoms (positive)

## Neurodevelopmental effects of childhood abuse and neglect

- Repeated stressors can sensitize neurobiological processes so that the homeostasis returned to is at a higher level of responsivity
- Evidence that child abuse can cause
  - hyper-responsivity of the HPA axis
  - neurotransmitter abnormalities
  - structural abnormalities in the brain
  - Deficits in cognitive functioning
- Other research implications
  - Multiple pathways to positive and negative symptoms
  - Specificity and severity: weakness of NT model is that not all schizophrenic adults suffered traumatic events or neglect as children
  - A posttraumatic dissociative psychosis: a focus on common etiology rather than symptoms (challenge to reliability, validity, utility of “schizophrenia construct”)

## Clinical implications/ Conclusion

- Assessment
  - Clinicians identify an alarmingly small proportion of abuse
  - Response of mental health staff to identified abuse
  - Minimization of relationship between childhood abuse and schizophrenia: genes versus family blaming
- Treatment: Lack of effective treatments for survivors of child abuse who have been diagnosed with schizophrenia
- Summary: NT model in need of further exploration

## Widom, 1999

-critique of Johnson et al., 1999-

- Specificity and overlap
- Importance of studying neglect
- Gender
- Ecological model: consider the broader environment in which the child develops
  - Need to take into account characteristics of the child (e.g., temperament)
- Need to move beyond retrospective accounts

## Discussion Questions

- Johnson et al., 1999 and Widom, 1999
  - Why do you suppose childhood neglect is given little attention in etiological studies?
    - How would we study and define childhood neglect?
      - *Discussion notes: Neglect: difficult to study, examples from previous studies that don't account for neglect; need to look deeply at physical/emotional/sexual abuse; Definition? Physical versus emotional; emotional: difference between emotional abuse and neglect?; also manifested in child social programs, reporting to child protective services; cultural variations? (reflects cultural values); Family blaming; Difficult for children to define, ambiguous: How much can children decipher neglect? From societal restrictions? Was it intentional? Subtle? How do we measure neglect? How much do drugs/alcohol usage play a role in neglect? As measurement, possibly take a look at presence of good things; easier than asking about absence of good things.*
  - How do you think that gender plays a role in the manifestation of formerly abused and neglected men and women?
    - How would this impact different forms of resulting personality and psychiatric disorders?
      - *Discussion notes: Are situations different for girls than boys? Is it a risk factor to be female? Family dynamics: boys and girls may be treated differently.*
- Johnson et al., 2002
  - Fathers were not interviewed to assess paternal behavior and psychiatric symptoms. Rather, these were assessed during maternal and offspring interviews. So, how might this have impacted the results?
    - *Discussion notes: Are situations different for moms and children may not correlate with dad's report, moms and children report may be affected by social desirability; issue of getting fathers involved*

## Discussion questions, con't-2

- Kendler et al., 2000
  - What is the utility of a co-twin design in childhood abuse research?
    - *Discussion notes: No consensus on utility of a co-twin design, difficult to understand why authors used it. Is there a trait that rape victims have? Similar personality factors could contribute to psychiatric and substance use disorders, putting selves in certain circumstances; Not a distinction between social factors and personality differences. Or genetic factors that increase correlation, hard to tell. Distinction between genetic and social factors: sometimes studies neglect to look at all factors in twin studies. Circumstances that may not be shared between twins (e.g., environmental) rarely examined.*
- Nelson et al., 2002
  - What are some implications of using a wide-range definition of CSA?
  - What are the advantages and disadvantages of retrospective and prospective studies (both practical and methodological)?
    - *Discussion notes: ethical issues of getting prospective reports, is it worth the robust sample? Access to medical charts, ethical implications?*

## Discussion questions, con't-3

- Read et al., (2001)
    - The authors propose a Traumagenic Neurodevelopmental (NT) model as a potential explanation for findings in schizophrenia research; is (are) there another disorder for which this model may be appropriate as well?
    - The authors discuss two extreme causal explanations for schizophrenia:
      - 1) an over-reliance on a simplistic biological paradigm (genes)
      - 2) “family-blaming”
- \*Is the NT model an integration of both perspectives? If so, how? If not, what would the model need?

*Discussion notes: NT model may explain overall effects of abuse, could apply to any disorder, schizophrenia diagnosis should be explored from etiological model*