

Absence of Gender Differences in Co-occurring Internalizing and Externalizing Disorders in Youth: A Network Conceptualization

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Introduction

- ◆ Why do we need to continue to study comorbidity in youth?
 - ◆ Problems with excluding comorbidity in research (Caron & Rutter, 1991)
 - ◆ Can form misleading conclusions
 - ◆ Not practical in that this would result in an atypical sample
 - ◆ Statistics (Caron & Rutter, 1991)
 - ◆ Epidemiological surveys often show that comorbidity rates are more than double than what is expected by chance
 - ◆ Clinic samples tend to show disproportionately higher referral rates for combined disorders compared to single disorders

Introduction

- ◆ **Definition of Comorbidity:**

- ◆ Two or more existing mental disorders present at the same time (Borsboom et al., 2011)

- ◆ **Implications from comorbidity:**

- ◆ Suggests that both disorders are linked by the time in which it is present (Kaplan et al., 2006)
- ◆ Not clear what type of relationship disorders have with one another (Kaplan et al., 2006)
- ◆ Shift from categorical to dimensional model (Widlger & Mullins-Sweatt, 1997)

Introduction

- ◆ **Characteristics:** internalizing disorders vs. externalizing disorders
 - ◆ Females are more likely to exhibit internalizing disorders than males while males are more likely to exhibit externalizing disorders than females (Nottlemann & Jensen, 1995)
- ◆ **Purpose/Goals:**
 - ◆ Understand the nature of comorbidity by examining the co-occurrence of internalizing and externalizing disorders across genders
 - ◆ Provide/support a conceptual approach for comorbidity in assessing and treating children/adolescents with multiple diagnoses using the Network Model

Method

◆ Sample

- ◆ 280 youth referred to a psychopharmacology clinic and evaluated for psychopathology
- ◆ 78 girls (28%)
- ◆ 202 boys (72%)
- ◆ Range – 3-18 years ($M = 10.5$; $SD = 3.4$)

◆ Measure

- ◆ Schedule for Affective Disorders and Schizophrenia for School Age Children (K-SADS)

Results

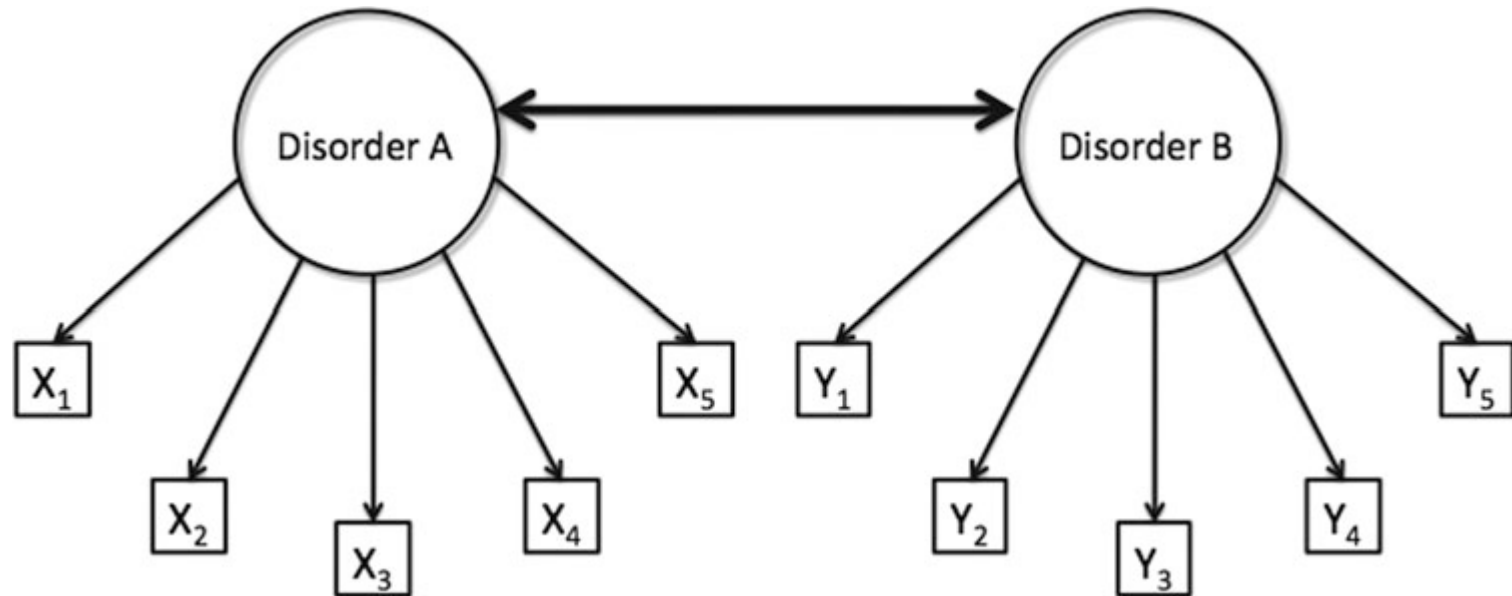
- ◆ Internalizing disorders = 81.4%
 - ◆ Girls (89.7%) more likely than boys (78.2%)
 - ◆ $X^2 (1, N = 280) = 4.94, p < .05$
- ◆ Externalizing disorders = 86.8%
 - ◆ Boys (90.6%) more likely than girls (76.9%)
 - ◆ $X^2 (1, N = 280) = 9.17, p < .01$
- ◆ Co-occurring = 69.3%
 - ◆ No difference in gender: Girls (67.9%); Boys (69.8%)
 - ◆ $X^2 (1, N = 280) = 0.09, p = .763$

Results

- ◆ Although significant difference between genders, both genders had a high percentage of experiencing either an internalizing disorder or an externalizing disorder (75%+)
- ◆ *No difference between genders for co-occurring internalizing and externalizing
 - ◆ Both girls (67.9%) and boys (69.8%) experience at least one internalizing and one externalizing disorder
- ◆ May be more clinically appropriate to recognize that a significant proportion of both females and males are experiencing at least one internalizing disorder and at least one externalizing disorder.

Questions Raised

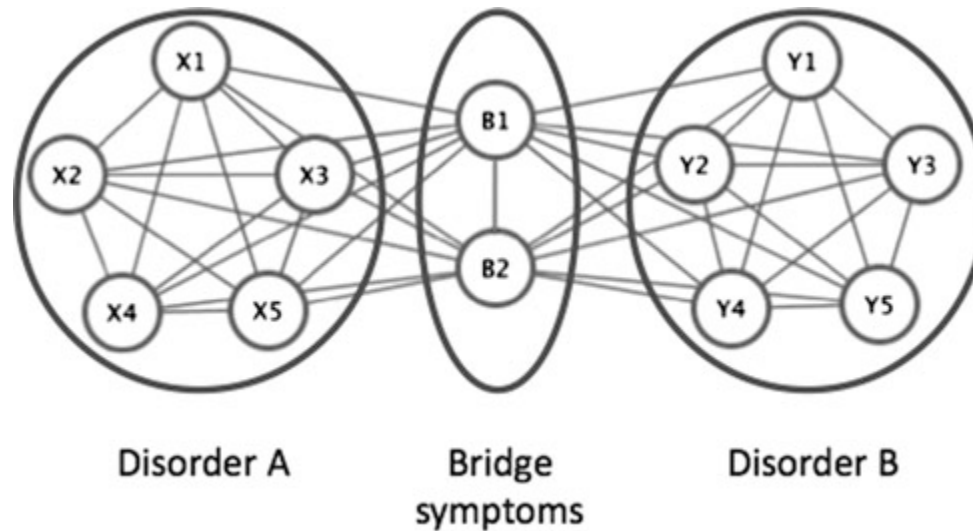
- Classical Conceptualization – Latent Variables



- Why is the occurrence of both so prevalent?

A Novel Approach

- ◆ The Network Model (Cramer, Waldorp, van der Maas, & Borsboom, 2010; Borsboom, Cramer, Schmittmann, Epskamp, & Waldorp, 2011)



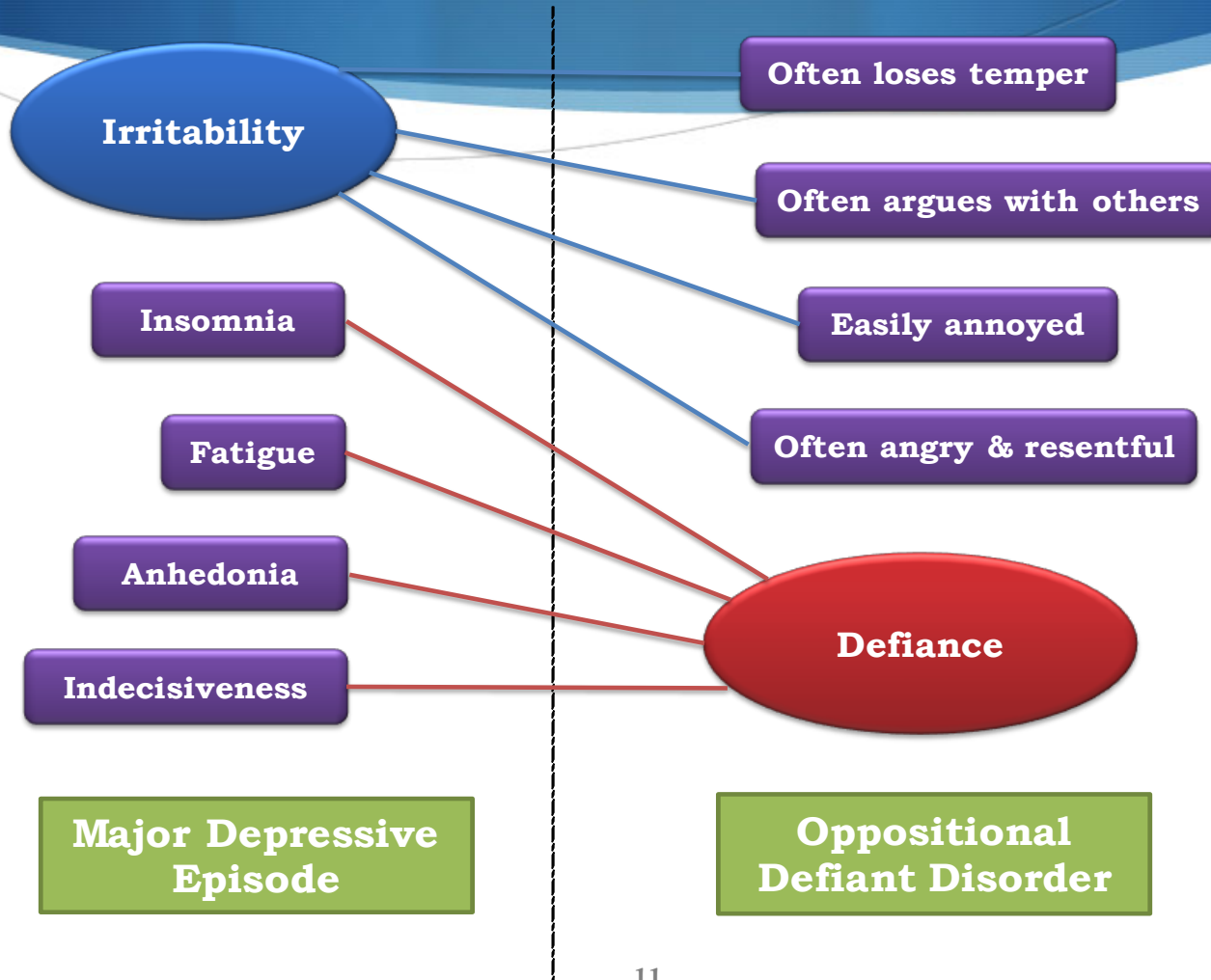
- ◆ Comorbidity is prevalent because disorders interact

Practical Application

- ◆ Work at the symptom level
 - ◆ Avoid the assumption that clusters of symptoms (disorders) yield the same information as the individual symptoms
- ◆ Make connections, and look for clusters
 - ◆ Borsboom et al. (2010) hypothesize that some symptoms are more central than others, which may have diagnostic and treatment ramifications
- ◆ Consider new hypotheses
 - ◆ Variation may exist at the symptom level

Our Expectations

Network Model Comorbidity Symptom Overlap in Children: Example



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