

# CUMULATIVE BURDEN OF ADOLESCENT PSYCHOPATHOLOGY: YOUNG ADULT OUTCOMES AND MENTAL HEALTH SERVICE UTILIZATION

Alexis Dawson<sup>1</sup>, Isaac Rhew<sup>2</sup>, Elizabeth McCauley<sup>2</sup>, Robert J. McMahon<sup>1</sup>, Ann Vander Stoep<sup>2</sup>

<sup>1</sup>Department of Psychology, Simon Fraser University and BC Children's Hospital, <sup>2</sup>Department of Psychiatry and Behavioral Sciences, University of Washington, and Seattle Children's Hospital

## Abstract

- Little research has investigated potential specificity of the effects of different adolescent mental health disorders on young adult outcomes and patterns of mental health service utilization.
- We employed data from the **Developmental Pathways Project (DPP)**, a longitudinal study of the development of comorbid **depression and disruptive behaviour problems (conduct disorder and oppositional defiant disorder)**. The DPP cohort was recruited from Seattle Public Schools at middle school entry. Utilizing the Diagnostic Interview for Schedule for Children, we estimated the cumulative burden of adolescent psychopathology measured across 6th-12th grades.
- How an adolescent with mental health problems functions in young adulthood depends upon what type of psychopathology the adolescent has experienced. Implications of our findings for how to support vulnerable adolescents as they transition into adult roles will be highlighted.

## Introduction

- The young adult years are a critical period for acquiring the occupational and interpersonal skills necessary for long-term stability (Arnett, 2014).
- Adolescents with mental health disorders tend to struggle with the transition to adulthood in a variety of key domains (Leadbeater & Ames, 2017; Vander Stoep et al., 2000).
- Psychiatric history during childhood has been found to be a significant predictor of negative functional outcomes in young adulthood, over and above the effects of current psychiatric disorder alone (Ormel et al., 2017).
- Cumulative childhood exposure to psychiatric disorders is considered the best predictor of functional outcomes, although few studies have explored this (Copeland et al., 2011).

## Aims

**Aim 1:** Examine the role of different types of cumulative adolescent psychopathology in self-reported young adult functioning in vocational, social, and academic domains.

**Aim 2:** Assess the role of adolescent psychopathology in self-reported mental health service utilization in young adulthood.

## Methods: Sample

- Community-based cohort** study of the development and consequences of comorbid depression and disruptive behaviour disorders (conduct disorder/oppositional defiant disorder).
- 521 Students from Seattle Public Schools at middle school entry (age 11-12) followed until age 21-22.
- 406 students completed young adult interview.
- Sample is 52% female, 27% African American, 20% Asian American/Pacific Islander, 5% American Indian, and 48% European American.

## PROCEDURES: Study assessments

**DPP** |====|====|====|====|=====|=====|

Screen 6<sup>th</sup> 7<sup>th</sup> 8<sup>th</sup> 9<sup>th</sup> 12<sup>th</sup> 21-22 years

## Methods: Measures

- Computerized-Diagnostic Interview Schedule for Children-IV:** Assessment of Major Depressive Disorder, Oppositional Defiant Disorder and Conduct Disorder. Parent and child interviews combined into total symptom count.
- Young Adult Milestones Timeline (YAMT):** (ages 21-22) Self-report online measure. Assesses young adult education, vocation, financial support, romantic relationships, reproductive outcomes, and parenting since turning 18.
- Getting Help Questionnaire:** (ages 21-22): Assesses various kinds of help received for emotional or behavioral problems since turning 18.

## Methods: Analysis

### Measuring cumulative burden of psychopathology

- Sum of past-year symptoms endorsed across 6<sup>th</sup>, 7<sup>th</sup>, 8<sup>th</sup>, 9<sup>th</sup>, 12<sup>th</sup> grades
- Top 20% cumulative depression symptoms (MDD)
- Top 20% cumulative disruptive behavior symptoms (ODD and CD)
- Four psychopathology subgroups: Comorbid, High Depression, High Disruptive Behavior Problems, Low Psychopathology

	Low Disruptive Behaviour	High Disruptive Behaviour
Low Depression	209 (69.2%)	31 (10.3%)
High Depression	32 (10.6%)	30 (9.9%)

**Logistic regression** used cumulative psychopathology burden during adolescence (low symptomatology as reference group), with adjustment for family SES, to predict young adult outcomes.

(\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ ).

## Results: Young Adult Outcomes

- Comorbid psychopathology** associated with a higher likelihood of homelessness in young adulthood (OR: 9.34,  $p < .001$ ).
- Disruptive Behaviour Problems** associated with being financially self-supporting since the age of 18 (OR: 4.99,  $p < .001$ ).
- Depression/Disruptive Behaviour Problems** independently associated with young adult pregnancy (OR: 3.78,  $p < .01$ ; OR: 4.16,  $p < .001$ ).

## Results: Mental Health Service Utilization

- Depression** associated with a higher likelihood of meeting with a mental health professional (OR: 3.60,  $p < .01$ ), seeing a medical doctor for emotional or behavioral concerns (OR: 4.33,  $p < .05$ ), and being in residential treatment or having an inpatient psychiatric hospitalization as a young adult (OR: 10.86,  $p < .01$ ).
- Comorbid psychopathology** associated with seeing a medical doctor for emotional or behavioral concerns, including at an ER (OR: 4.18,  $p < .05$ ).
- Disruptive Behaviour Problems** not associated with more utilization of any type of services compared to adolescents with low psychopathology.

Young Adult Outcomes	Lower 80% Depression and DBP N=209 (reference group)	Highest 20% Depression Only N=31	Highest 20% DBP Only N=32	Highest 20% Comorbid Depression and DBP N=30
Homeless episode	3.3%	12.5%	12.9%	30%***
Pregnancy	11.3%	34.6%**	50%***	30.8%
Self-supporting	34.5%	53.8%	75%**	57%
Academic probation	10.2%	30.8%**	8.3%	3.8%

Mental Health Service Utilization	Lower 80% Depression and DBP N=209	Highest 20% Depression Only N=31	Highest 20% DBP Only N=32	Highest 20% Comorbid N=30
Outpatient mental health professional	24%	52%**	10%	33.3%
Drug and alcohol counselor	7%	8.7%	5%	8.3%
Inpatient psych. hospitalization	1.2%	13%**	0%	8.3%
Nurse or medical doctor including at an ER	6.5%	21.7%*	5%	20.8%*

DBP= Disruptive Behaviour Problems (Conduct Disorder, Oppositional Defiant Disorder)

## Conclusion

- Adolescents with depression, DBP, and comorbid psychopathology need support to prepare them for specific challenges each group is likely to face as young adults.
- Particular attention is needed for adolescents who have disruptive behavior problems with or without depression. Compared to adolescents with depression, only, they are less likely to transition to adult mental health services.

## Acknowledgements

National Institutes of Health: NIMH, NIDA, NIAAA

R01 MH/DA63711, *Emergence of Co-Occurring Depression and Externalizing Problems*: Vander Stoep & McCauley, 2001-2007

R01 MH079402, *Adolescent Psychopathology: Implications of Comorbidity*: Vander Stoep & McCauley, 2008-2013

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