Mental health symptoms and employment in adolescents with mental illness in the justice system

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Acknowledgements

The mission of the Transitions to Adulthood Center for Research is to promote the full participation in socially valued roles of transition-age youth and young adults (ages 14-30) with serious mental health conditions. We use the tools of research and knowledge translation in partnership with this at risk population to achieve this mission. Visit us at: <u>http://www.umassmed.edu/TransitionsACR</u>

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Context for the research presented today

- Juvenile justice system is the de facto treatment system for many adolescents with mental health disorders
- Current emphases
 - > diversion
 - > more mental health services for these adolescents
- Challenges
 - integration of services
 - > positive outcomes (not just the mirror of offending)
- Little is known about mental health symptoms and employment
 - very few substantial research studies of juvenile offenders with mental health problems
 - > literature on employment in the area of adult services

Pathways to Desistance Study



Two-site study that follows 1,354 serious adolescent offenders as they make the transition from adolescence into early adulthood, using regular interviews and official records over a seven year period.

Research on Desistance



- Why does it matter?
 - Theoretical reorientation: emphasis on promoting positive change rather than fixing deficits
 - Practical possibilities: improving risk assessments and targeting interventions

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Study design

- Two sites: Philadelphia and Phoenix
- Enroll serious adolescent offenders
 - 1,354 felony offenders, aged 14 -18
 - Females and adult transfer cases
- Regular interviews over seven years
 - Initial interviews
 - Time point interviews (background characteristics, psychological mediators, family context, relationships, community context, life changes)
 - Release interviews
- Other sources of information
 - Collateral interviews
 - Official records

Living situation calendar

| | Month 1 | Month 2 | Month 3 | Month 4 | Month 5 | Month 6 | | |
|-----------|------------------------|------------------------|------------------------|-------------------|-------------------------|---------------------------|--|--|
| Subject 1 | 900 West Huntington | St Gabe's Hall | 900 West Huntington | St Gabe's Hall | Vision Quest | Youth Forestry Camp | | |
| Subject 2 | 2429 W. Augusta | Madison Street Jail | 1808 S. Wilmot | 1808 S. Wilmot | 1808 S. Wilmot | Tucson Prison | | |
| Subject 3 | 5050 Master | 4th and Norris | 4th and Norris | 4th and Norris | House of Corrections | House of Corrections | | |

Who are these adolescents?

- At Enrollment
 - 16 years old on average
 - 86% males
 - Average of two prior court appearances
 ✓ 32% had no prior petitions to court
 ✓ Most of priors were for a person crime
- Ethnically diverse



Caucasian African American Latino Other

Assessing Mental Health

- Mental Health Disorders were assessed for the year prior to the baseline interview
 - Major Depression
 - Dysthymia
 - Mania
 - PTSD
 - ADHD

Mood/anxiety problems

Alcohol/Drug abuse and dependence

Assessment methods

- Composite International Diagnostic Interview (CIDI; 1990)
- Disruptive Behavior Disorders scale (Pelham, 1992)

Sample Characteristics for these analyses

- 572 youth who met diagnostic criteria
 - > mental health disorder: n=102
 - > substance use disorder: n= 358
 - Co-occurring: n=112
- Age: 16.61 (s.d. =1.08) years old
- Male: 57%
- Race/ethnicity: 74% minority
- Most serious adjudicated felony as index offense
 - Person Crime: 38%
 - > Property: 24%
 - ➢ Drug: 22%
 - > Weapon: 9%
 - ➢ Other: 6%
- Average number of prior petitions to court: 2.22
- Average age at first prior petition: 14.90 (s.d. = .07)

Measures over time

- Mental Health Symptoms
 - Brief Symptoms Inventory (BSI; Derogatis & Melisaratos, 1983)
 - 53-item self-report inventory
 - rate the extent to which they have been bothered (0 ="not at all" to 4="extremely")
 - > Use the Global Severity Index (GSI)
- Employment
 - > Based on reports from life event calendar (legitimate or "under the table" work)
 - Four aspects of employment
 - Weeks worked of weeks in community
 - Wages earned per week
 - \circ Whether worked at all
 - Whether made any money at all

Mean BSI-Global Severity Index at each wave



Interview Wave

Percent of Youth Employed at Each Interview Wave (n=582)



Interview Wave









| | Weeks Worked | Wages | Weeks Worked (Dichotomized) | Wages (Dichotomized) |
|---|--------------|--------|--------------------------------|-------------------------|
| Autoregressive Estimates | | | | |
| Employment (T) \rightarrow Employment (T+1) | .50*** | .53*** | .43*** | .44*** |
| GSI (T) → GSI (T+1) | .48*** | .49*** | .46*** | .48*** |
| | | | | |
| Cross-Lags Estimates | | | | |
| Employment (T) \rightarrow GSI (T+1) | 01 | 02 | .02 | .03 |
| GSI (T) → Employment (T+1) | 05** | 04* | 04** | 04* |
| | | | | |
| Concurrent Associations | | | | |
| Employment (T) \rightarrow GSI (T) | .01 | .01 | .02 | .02 |
| | | | | |
| Covariates | | | | |
| Age (T) \rightarrow Employment (T) | .07*** | .08*** | .06*** | .07*** |
| Age (T) \rightarrow GSI (T) | .01 | .01 | .01 | 01 |
| | | | | |

Table 1. Path coefficients for Cross Lag Panel Analysis of Mental Health Symptoms and Employment Outcomes

Notes: *** = $p \le 0.001$; ** = $p \le 0.01$; * = $p \le 0.05$

Symptom level and employment outcomes change some, but not a great deal, from one six-month recall period to the next one

| | | | Weeks Worked | Wages |
|--------------------------------------|--------------|--------|----------------|----------------|
| | Weeks Worked | Wages | (Dichotomized) | (Dichotomized) |
| Autoregressive Estimates | | | | |
| Employment (T) → Employment (T+1) | .50*** | .53*** | .43*** | .44*** |
| GSI (T) → GSI (T+1) | .48*** | .49*** | .46*** | .48*** |
| | | | | |
| Cross-Lags Estimates | | | | |
| Employment (T) → GSI (T+1) | 01 | 02 | .02 | .03 |
| GSI (T) → Employment (T+1) | 05** | 04* | 04** | 04* |
| | | | | |
| Concurrent Associations | | | | |
| Employment (T) \rightarrow GSI (T) | .01 | .01 | .02 | .02 |
| | | | | |
| Covariates | | | | |
| Age (T) \rightarrow Employment (T) | .07*** | .08*** | .06*** | .07*** |
| Age (T) \rightarrow GSI (T) | .01 | .01 | .01 | 01 |

Table 1. Path coefficients for Cross Lag Panel Analysis of Mental Health Symptoms and Employment Outcomes

Notes: *** = $p \le 0.001$; ** = $p \le 0.01$; * = $p \le 0.05$

Symptom level and employment outcomes are not highly related within any given recall period

| | Weeks Worked | Wages | Weeks Worked (Dichotomized) | Wages (Dichotomized) | | |
|--------------------------------------|---------------|-------------|--------------------------------|-------------------------|--|--|
| Autoregressive Estimates | | | | | | |
| Employment (T) → Employment (T+1) | .50*** | .53*** | .43*** | .44*** | | |
| GSI (T) → GSI (T+1) | .48*** .49*** | | .46*** | .48*** | | |
| | | | | | | |
| Cross-Lags Estimates | | | | | | |
| Employment (T) → GSI (T+1) | 01 | 02 | .02 | .03 | | |
| GSI (T) → Employment (T+1) | 05** | 05**04*04** | | 04* | | |
| | | | | | | |
| Concurrent Associations | | | | | | |
| Employment (T) → GSI (T) | .01 | .01 | .02 | .02 | | |
| | | | | | | |
| Covariates | | | | | | |
| Age (T) \rightarrow Employment (T) | .07*** | .08*** | .06*** | .07*** | | |
| Age (T) → GSI (T) | .01 | .01 | .01 | 01 | | |
| | | | | | | |

 Table 1. Path coefficients for Cross Lag Panel Analysis of Mental Health Symptoms and Employment Outcomes

Notes: *** = $p \le 0.001$; ** = $p \le 0.01$; * = $p \le 0.05$

Employment measures *are not* significantly related to symptom level in the next recall period

BUT

Symptom levels *are* significantly related to employment outcomes in the next period (i.e., less symptoms, better employment outcomes)

Limitations

- Sample may not be highly generalizable
- Different clinical profiles or diagnoses may show distinct patterns of effects
- Other aspects of working can be more important to examine than money earned or job regularity; e.g., sense of belonging. These may be important outcomes in themselves or mediators of longer term outcomes.
- The role of mental health or substance use treatment is not considered

Conclusions

- Intraindividual analyses provide a strong test of the effects of mental health symptomatology and employment
- Unlike the results seen in the adult literature, having a job for a longer time period or making more money does not affect overall symptomatology
- Symptom levels (either deteriorating or improving) does appear to affect job performance
- Supportive employment with regular access to mental health services could have a positive impact on this group of adolescents



A study of serious adolescent offenders as they transition to adulthood and out of crime



If using the Internet Explore browser to view this site you should use version 6.0 or greater.

The Pathways to Desistance study is a multi-site, longitudinal study of serious adolescent offenders as they transition from adolescence into early adulthood. Between November, 2000 and January, 2003, 1,354 adjudicated youths from the juvenile and adult court systems in Maricopa County (Phoenix), Arizona (N = 654) and Philadelphia County, Pennsylvania (N = 700) were enrolled into the study.

The enrolled youth were at least 14 years old and under 18 years old at the time of their committing offense and were found guilty of a serious offense (predominantly felonies, with a few exceptions for some misdemeanor property offenses, sexual assault, or weapons offenses).

Each study participant was followed for a period of seven years past enrollment with the end result a comprehensive picture of life changes in a wide array of areas over the course of this time.

Largest longitudinal study of serious adolescent offenders ever done.

Rich picture of change over time based on over 20,000 interviews

The study was designed to

To identify distinct initial pathways out of juvenile justice system involvement and the characteristics of the adolescents who progress along each of these pathways. To describe the role of social context and developmental changes in promoting desistance or continuation of antisocial behavior. To compare the effects of sanctions and selected interventions in altering progression along the pathways out of juvenile justice system involvement.

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