Summary

These findings provide a quick overview of the relations between diagnostic groups and later outcomes for a sample of serious offenders. **It is important to remember that they are just an initial view of a very complicated process.** Even so, it does seem that mental disorders do, at even this broad level, have an effect on how life unfolds for serious offenders. This effect, however, wasn't as powerful or as consistent as we initially expected. The nuances of the relation will only be known after much more analysis.

At this stage, some potentially relevant patterns can be observed:

- The mental disorders we selected do not consistently relate to outcomes across sites. The differences between the Philadelphia and Maricopa County samples might indicate considerable variability in how mental health problems and opportunities unfold for adolescent offenders in different places with different detection and treatment environments.
- The presence of one of the mental disorders we examined did relate to some of the outcomes examined, but the relations seen were not all negative and overwhelming. ***Relative to the other factors we considered***, a substance use disorder (either alone or co-occurring) showed the most consistent impact on outcomes; associated with a greater likelihood of making a transition to college (both sites), having community-based treatment (Phoenix only) and being re-arrested. However, ***relative to the other factors we considered***, the diagnosed disorders we examined did not seem to have much of a relation to job stability, earning power, housing stability, or the amount of time out of the community. It is still to be determined whether a diagnosis of substance use problems at this age indicates a long standing pattern of substance use problems, and whether other disorders don't affect community adjustment in more subtle ways.
- Systematically considering the effects of institutional placement and receipt of services presents a large challenge to sorting out any effects of having a mental disorder during this developmental transition. These adolescents spend a fair amount of time out of the community and this limits the opportunity to participate in some types of outcomes; it also changes the chances for some outcomes to ever occur. Having mental health problems can no doubt affect one's adjustment to the community in subtle ways related to development, in this sample and other groups of adolescents.

Currently, we have only taken the first steps toward unraveling the complex processes that can affect adolescents who have the dual challenge of controlling both mental health problems and antisocial involvement. We welcome your thoughts regarding our initial findings and your ideas about other things we might consider in sorting out the role of mental disorders. Please send any reactions and thoughts to: rpd@msx.upmc.edu

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Coordinating Center
University of Pittsburgh Medical Center
3811 O'Hara Street
Pittsburgh, PA 15213

Phone: 412-647-4760
Fax: 412-647-4751

Visit our website at
www.mac-adoldev-juvjustice.org

Data Collection at a Glance

as of June, 2009

- ✓ 1,354 participants
- ✓ Over 24,290 interviews completed to date (subject, collateral and release interviews)
- ✓ All subjects have passed through their opportunity to complete the 60-month interview
- ✓ 45 subjects have died since the baseline (3%)
- ✓ 44 subjects have dropped out of the study since the baseline (3%)
- ✓ Subject retention rates for each time point (6-60-month) are averaging 91%
- ✓ As of the 60-month interview, 84% of the subjects have completed 7 or 8 of their eight possible interviews
- ✓ Yearly collateral reports are present for about 89% of subjects at baseline and about 90% for annual follow-ups during the first three years

PATHWAYS

Research on Pathways to Desistance

VOLUME 14

Offenders with Mental Illness

Indicators of Community Integration Over the Course of 5 Years

Mental disorder and criminal involvement: Double trouble

Researchers have firmly established that juvenile offender populations have disproportionately high rates of mental health disorders compared to the general population of adolescents. Exact prevalence rates differ, depending on the measurement method used, but estimates suggest that anywhere from 50% to 70% of juvenile offenders have a diagnosable mental health disorder (1, 2, 3, 4) whereas prevalence estimates for youth in the general population are estimated to be between 9 and 13 percent (5). Furthermore, many of these diagnosable youth in the juvenile justice system are dealing with more than one disorder, most commonly a co-occurring substance use disorder and another serious disorder. A study of juvenile detainees in Chicago showed that nearly 30% of females and more than 20% of males with substance use disorders also had a mental health disorder (6). These general patterns are also found among young offenders in the adult system. Findings from Bureau of Justice Statistics (BJS) surveys indicate that at least two-thirds of younger inmates (age 24 or younger) had a mental health problem and rates of substance use disorders were highest among inmates with mental health problems (7).

Both mental illness and a criminal history have been *independently* linked to problems with employment, lower educational attainment and unstable living arrangements. Thus, having *both* a criminal record and a mental illness would seem to make it all that much tougher for an individual to establish a stable and productive life. Furthermore, getting and maintaining proper treatment for a mental disorder can be sidetracked by contacts with the juvenile and criminal justice systems, with many offenders who have mental health problems lacking sufficient access to treatment both during and following incarceration. Not surprisingly, adult probationers who also have a mental illness are rearrested at nearly double the rates of those without mental illness (54% versus 30%, 8), and it is possible that this pattern holds for juveniles as well.

What can the Pathways study tell us?

Characteristics of the adolescents with diagnoses.

The Pathways study provides an opportunity to look at a group of young offenders, some with mental illness and others without, to compare how they fare across a range of indicators for community adjustment. At their initial interview, all Pathways study participants (all of whom who

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PATHWAYS PERSONNEL

COORDINATING CENTER:

Edward P. Mulvey, Ph.D.

Elizabeth Cauffman, Ph.D.

Carol Schubert, M.P.H.

University of Pittsburgh
Medical Center
3811 O'Hara Street
Pittsburgh, PA 15213
Phone: (412) 647-4760
Fax: (412) 647-4751

PHILADELPHIA SITE:

Laurence Steinberg, Ph.D.

Sonia Cota-Robles, J.D., Ph.D.

Temple University
Department of Psychology
Philadelphia, PA 19122
Phone: (215) 204-4470
Fax: (215) 204-1286

PHOENIX SITE:

Laurie Chassin, Ph.D.

George Knight, Ph.D.

Sandra Losoya, Ph.D.

Arizona State University
Department of Psychology
Box 871104
Tempe, AZ 87287
Phone: (480) 965-5505
Fax: (480) 727-7294

had been found guilty of a serious offense) were assessed for the presence of certain mood and substance use disorders. They were not given a full diagnostic battery, but were assessed systematically for several relevant disorders. Specifically, the Composite International Diagnostic Interview (CIDI; World Health Organization, 1990), which is a comprehensive, fully structured diagnostic interview, was administered to determine the presence of a history of major depressive disorder, dysthymia, mania, posttraumatic stress disorder, alcohol abuse, alcohol dependence, drug abuse, and drug dependence. To see how well the diagnosed adolescents were doing later on, we identified a subset of 1,147 study participants for whom we had nearly 5 full years of follow-up data, broke them into groups based on diagnosis, and compared their community adjustment during the follow-up period.

Table 1: Sample Size and Gender For Each Diagnostic Group

	Sample size	% (of 1,147)	% Male	% Female
No Diagnosis	581	51	88	12
SU only	394	34	87	13
Mood/anxiety disorder only	54	5	76	24
Co-occurring	118	10	79	21

As expected, a rather high proportion of our sample had the diagnosable disorders we assessed. Approximately one half of the Pathways youth did not meet the threshold for any of these diagnoses, 44% had a substance use disorder at some point in their lives, either alone or along with a mood disorder, and a small number (5%) met just the criteria for one of the mood/anxiety disorders we assessed.

Table 2: Ethncity For Each Diagnostic Group

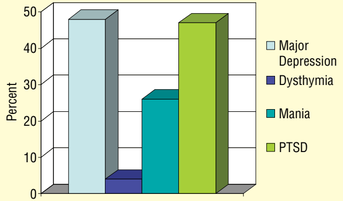
	% Black	% Latino	% White	% Other
No Diagnosis	45	32	20	3
SU only	34	39	22	5
Mood/anxiety disorder only	48	28	20	4
Co-occurring	26	39	26	9

There were some differences in ethnicity and gender characteristics among these groups. For instance, the adolescents with just mood/anxiety disorders and co-occurring disorders were disproportionately female. In addition, the adolescents with any diagnosis were disproportionately white. As in other samples of juvenile offenders (see 9), white adolescents and females in the juvenile justice system are more likely to qualify for diagnoses in general.

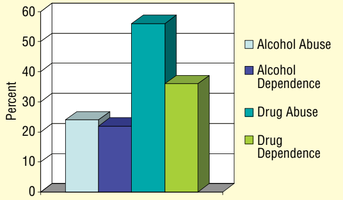
Outcomes for adolescents with diagnosable disorders.

In the following sections, we describe outcomes for those adolescents with diagnoses across several areas of community adjustment, i.e., education, employment, housing, sanctions and interventions, and new petitions or arrests. As an initial step, we looked at the relative impact of age, gender, ethnicity, antisocial history (a summary variable that combines number of prior petitions to court and offending variety scores in the year previous to entry into the study), and diagnostic group on a variety of outcomes. We considered all of these variables together in one model, looking at each outcome separately. This tested whether any of the variables significantly predicted a particular

Specific Diagnoses for Those With a Mood/Anxiety (n=172)



Specific Diagnoses for Those With a Substance Use Disorder (n=512)



outcome, taking all of the other variables into account. In other words, does each variable distinguish those who achieve the outcome, even accounting for the other variables in the model?

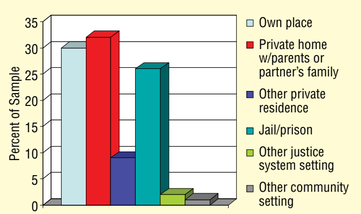
These findings represent an initial step in identifying the role of mental health disorders, relative to other factors (e.g. demographic and antisocial history), in determining community adjustment over the five years after court involvement. They are far from the final word; they are initial descriptions of outcomes. Understanding the rippling effect of having a diagnosable disorder on adjustment in these adolescents will take a good bit more work.

In doing these analyses, it was important to account for time in the community in the calculation of some of the outcome variables. How much some of these outcomes occur depends on how much time the adolescent spent in the community. Specifically, we looked at the rate of turning jobs over (number of jobs divided by number of days in the community), average wages (amount earned over the follow-up period divided by the number of days in the community), and stability of community living arrangements (again, number of places lived divided by number of days in the community). Considering the other outcomes, we simply ensured that the adolescent had spent some time in the community to be included in the analysis. In addition, we looked for the relations between mental health disorders and outcomes within each study site (Maricopa County, AZ and Philadelphia County, PA) independently to be sure that we didn't miss some big differences between the two locales.

Educational Attainment. Completing high school is a key step in the transition to adulthood, with a high school diploma or equivalency usually serving as the springboard for finding a job and earning a living wage. We considered two outcomes in this area: 1) receiving a high school diploma or GED and 2) attending college at some point in the follow-up period. Fifty-nine percent of the Pathways sample (as a whole) received a high school diploma or GED and 18% of the sample attended college at some point. We found evidence that diagnostic group is related to both outcomes, but in different ways in the two locales.

- In Philadelphia, gender was related to having a high school diploma or GED (girls were more likely to have attained these). In addition, having a co-occurring disorder was related to being in college at some point.
- In Phoenix, being Hispanic with a co-occurring disorder made it less likely to get a high school diploma or GED. Similar to the Philadelphia findings, youth with a co-occurring disorder were more likely to have been enrolled in college at some point.

A Snapshot of Where the Pathways Full Sample Was Living at the 72-Month Interview (n=512)



Employment. Financial independence (and self-respect) in adulthood relies, at least in part, on the ability to find stable and satisfying employment. We considered the total number of different jobs the youths held while in the community over the five-year follow-up period as an indicator of job stability. We also looked at the cumulative total wages from those jobs. Diagnostic group was not independently related to these outcomes in either site.

Housing. Housing is a fundamental and immediate need for individuals returning to the community following a stay in a residential facility as well as offenders trying to stabilize their lives. For individuals without family or friends to live with, the challenges to finding stable housing may be complicated by a criminal history. Indeed, when we considered the number of places the Pathways youths lived over the course of five years (exclusive of court-ordered placements) in light of the amount of time they spent in the community, we found that a more serious criminal history was linked to more instability in living arrangements (i.e. living in more places in a given period). This pattern was observed in Phoenix only, in contrast to Philadelphia where none of the variables we considered independently predicted stability of housing.

Sanctions and interventions. We also considered whether the proportion of time the youth spent removed from the community over the course of five years was associated with diagnostic group. When just the straight relation between diagnostic group and proportion of time spent in a facility is examined, the group with only a substance use disorder spent a significantly greater proportion of the follow-up period in a facility compared to the group with no diagnosis. This difference among diagnostic groups doesn't hold up, however, when the other variables are considered. Interestingly, we find that diagnostic group is only related to proportion of time spent in a facility when criminal history is not considered. Once antisocial history is accounted for, the diagnostic group is no longer predictive of the proportion of time in confinement. In both locales, males with a more serious antisocial history had a higher proportion of time out of the community, and diagnostic group was not independently related to this outcome when these factors were considered. While in the facility, 60% of those with either a mood/anxiety disorder or a co-occurring disorder reported receiving mental health services, and 62% of those with a SU or co-occurring disorder reported receiving drug or alcohol treatment.

Community-based services. Receiving treatment in the community was related to diagnostic group in Phoenix, but not in Philadelphia. In Phoenix, younger, white youth with a substance use or co-occurring disorder were more likely to receive community-based treatment. Of note, fewer than one half of the youth with a diagnosed substance use disorder or co-occurring mood and substance use disorders reported receiving D&A treatment in the community. Interestingly, we also found that 15% of our "no diagnosis " group and 24% of the mood disorder only group also reported receiving D&A treatment in the community. This treatment could be for a substance-use related problem that developed after our diagnostic interview or for a substance-use related problem that did not meet a diagnostic threshold.

Re-arrests. The likelihood of being re-arrested over the five year follow-up period was related to diagnostic group, along with antisocial history and some of the demographic variables tested. A more serious antisocial history and a substance use disorder were associated with an increased likelihood of being rearrested.

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