Mental Health Screening with the MAYSI-2

for Juvenile Probation

National Youth Screening & Assessment Project
University of Massachusetts Medical School

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Purpose of the Module

• To assist juvenile justice personnel to understand the use of the Massachusetts Youth Screening Instrument-2nd Version (MAYSI-2)

• Developed for personnel who will administer the MAYSI-2 or use its results

• Useful for initial training of personnel and for orientation of new personnel across time
Agenda

Mental disorders among youths in JJ programs

The reason for mental health screening in JJ programs, and how it works

The MAYSI-2

- History and description
  - Meanings of MAYSI-2 scales and scores
    - Administration of the MAYSI-2
      - Using the scores to make decisions
    - Introduction to MAYSIWARE

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Mental Disorders Among Youths in Juvenile Justice Programs

What do we mean by “mental disorders?”

How frequent are they among youths entering pretrial detention centers?
### Types of Mental Disorders Among Adolescents

<table>
<thead>
<tr>
<th>Disorder</th>
<th>Implications for behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety disorders</td>
<td>Risk of impulsive reactions due to fear</td>
</tr>
<tr>
<td>Mood disorders</td>
<td>Depressed, sullen, angry, self-harm risk</td>
</tr>
<tr>
<td>Attention Deficit Hyperactivity Disorder</td>
<td>Poor attention, misses cues, impulsive actions</td>
</tr>
<tr>
<td>Substance use disorders</td>
<td>Withdrawal reactions</td>
</tr>
<tr>
<td>Thought disturbances (e.g., schizophrenia)</td>
<td>Might respond to bizarre thoughts unpredictably</td>
</tr>
<tr>
<td>Disruptive behavior disorders (conduct disorder)</td>
<td>Angry, manipulative behavior</td>
</tr>
</tbody>
</table>
Research on Mental Health Needs of Youth in the Juvenile Justice System

- The proportion of youths meeting criteria for mental disorders is...
  - 2-in-3 youths (70%) for juvenile justice settings
  - 2-in-10 youths (20%) in the general adolescent population
Prevalence of Mental Disorders in Juvenile Programs (Teplin et al., 2002)

- Substance use disorders 50%
- Disruptive behavior disorders 40%
- Anxiety disorders (especially PTSD) 25%
- Mood disorders (Dysthymia, Major Depression) 25%
- Att. Deficit/Hyperactivity Disorder 15%
- Schizophrenia 3%
Research on Mental Health Needs (cont’d)

• 2-in-3 (70%) meet criteria for one or more psychiatric diagnoses (compared 20% in general adolescent population)

• Symptoms are higher for girls, but few differences by age or type of setting
MAYSI-2 National Norms Study (2005)

• Obtained MAYSI-2 data bases
  – from JJ systems in 19 states
  – Including over 200 programs/agencies of different kinds (intake probation, detention, corrections)
  – Including cases accumulated 2000-2003

• Final sample = 70,695 cases

• Some results...
MAYSI-2 National Norms

Gender

Percent Above “Caution” Cut-Off

- Alc/Drug
- Anger
- Dep-Anx
- Somatic
- Suicide
- Tht Dist

BOYS
GIRLS
MAYSI-2 National Norms

Age Percent Above “Caution” Cut-Off

<table>
<thead>
<tr>
<th></th>
<th>12 to 14</th>
<th>15 to 17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alc/Drug</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Anger</td>
<td>20</td>
<td>30</td>
</tr>
<tr>
<td>Dep-Anx</td>
<td>30</td>
<td>40</td>
</tr>
<tr>
<td>Somatic</td>
<td>40</td>
<td>50</td>
</tr>
<tr>
<td>Suicide</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Thought</td>
<td>20</td>
<td>30</td>
</tr>
</tbody>
</table>
MAYSI-2 National Norms

Point of MAYSI-2 Administration

Percent above “Caution” cut-off
Research on Mental Health Needs (cont’d)

- 2-in-3 (65%) meet criteria for one or more psychiatric diagnoses (compared 20% in general adolescent population)

- Symptoms are higher for girls, but few differences by age or type of facility

- There are some ethnic differences in prevalence of disorders for JJ youths, but reasons are not clear
MAYSI-2 National Norms

Race/Ethnicity Differences

Percent above “Caution” cut-offs

Depressed-Anxious Somatic Complaints

- Non-H White
- Afr-Amer
- Hispanic
- Asian
MAYSI-2 National Norms

Race/Ethnicity Differences

Percent above “Caution” cut-offs

Depressed-Anxious Somatic Complaints

Non-H White
Afr-Amer
Hispanic
Asian
MAYSI-2 National Norms

Race/Ethnicity Differences

Percent above “Caution” cut-offs

Suicide Ideation
Thought Disturbance

Non-H White
Afr-Amer
Hispanic
Asian
New Research on Mental Health Needs (cont’d)

- 2-in-3 (65%) meet criteria for one or more psychiatric diagnoses (compared to 20% in general adolescent population)
- Symptoms are higher for girls, but not few differences by age or type of facility
- There are some ethnic differences in prevalence of disorders for JJ youths
- Many youths have more than one disorder
  - Substance use disorders with other disorders
  - Conduct Disorder almost always co-occurs
Why do so many youths entering juvenile justice have mental disorders?

- Mental disorders may increase the risk of delinquent behavior
- Changes in laws in the 1990s decreased discretion to divert youths from detention in response to their mental health problems
- Child mental health services in many communities are not providing sufficient care (resulting in more frequent use of detention to manage disturbed youths)
Some Things to Remember about Youths with Mental Disorders

• Youths with the same symptoms of mental disorder still differ in many ways
  – The symptoms are more severe for some than for others
  – Symptoms are “temporary” for some youths, but will last longer for others
  – Some have more “resilience” than others (can function despite their symptoms)

• Therefore, not all youths with symptoms of mental disorders require immediate treatment
Discussion Break 1

- What have you observed about the number of youths you see that seem to have mental or emotional problems?
- What is known about the rate of mental disorders among youths in your court? (Are there any statistics available?)
- Have you observed any changes over the years—for example, increases or decreases in youths that seem to have mental health problems?
The Reason for Mental Health Screening in Juvenile Justice Programs and How it Works

Why is it helpful to identify potential mental disorders at intake?
Welfare of youth...

To identify disorders that threaten the welfare of youths and require additional attention

- Immediate (acute) emergency response
  - To suicide risks
  - To youths who may need immediate attention due to an acute condition that may deteriorate rapidly

- Alerting to potential need for longer-range rehabilitation plans

- Identifying youths whose chronic and persistent mental health problems may need MH care on a continuous basis
Safety of youths and others...

To identify conditions that may increase risk of aggression, calling for special efforts to prevent or reduce violence

- Relation between youths’ mental disorders and aggression
  - Most aggression is not due to mental disorders
  - But mental disorders increase the risk of aggression

- How various child disorders increase the risk
  - Childhood depression and anger
  - Anxiety disorders, anger, and hypervigilence (PTSD)
  - ADHD and impulsiveness
What is needed to identify youths’ mental health needs at intake?

- **MH Screening at Intake**
  - To identify at intake who might have important mental health or substance use needs
  - Typically done by intake staff (not MH professionals)

- **Follow-up Assessment if necessary**
  - For youths identified by screening (“screened in”) as possibly having special needs, doing a more individualized assessment of their condition soon after screening
  - May be:
    - More specific questioning
    - Use of other assessment instrument
    - Special consultation by clinical MH professional
    - Referral for emergency MH services (e.g., medication, inpatient care)
• What might be the benefits—and problems—of mental health screening at probation intake, from a staff member’s perspective?

• The next section describes how mental health screening is performed. What are your concerns about the effort that it will require, in relation to its potential value?
How does mental health screening work?
The Process of MH Screening

• Importance of using a “standardized” tool
  – Assures uniformity across cases
  – Assures validity
    (based on prior research and development of the tool)
  – Allows for use of clear decision rules based on scores
  – Provides data regarding an agency’s needs for MH services

• How the tool must be used
  – With every youth
  – Soon after intake
  – Relying on youth’s self-report of feelings and behaviors
The Process of MH Screening (cont’d)

• What the tool must be like
  – Evidence-based (research evidence for its value)
  – Brief to give and score (10-15 minutes)
  – Require minimum of staff effort
  – Easy to understand
  – Inexpensive
  – Readable by youths, or understandable when staff read to youths
  – Appropriate for adolescents (ages 12-17, boys/girls, multicultural)
Example of how screening works

100 youths, 20 of whom are true suicide risks (20%)

A Suicide Ideation screening scale

Over Cut-off score

Screen In 30
18 being true suicide risks (60%)

Under Cut-off score

Screen Out 70
2 being true suicide risks (3%)

Special response or further assessment
What a 10-minute mental health screening tool DOESN’T Do

- Does not provide psychiatric diagnoses
- The cut-off scores...
  - Do not identify every youth who might have a mental disorder
  - Do not assure that all youths identified actually have a mental disorder
- Do not ask all medical-MH questions that are needed for deciding how to proceed
What a screening tool doesn’t do (cont’d)…

• Does not provide the type of information needed to make long-range treatment plans
  – Some scores above cut-off are “temporary” moods, others are due to longer-term conditions
  – Therefore, intake screening data are for intake management, and should not be used for longer-term planning (e.g., “case dispositions”)

• Does not protect against self-report bias
  – Youths sometimes conceal symptoms and sometimes exaggerate them
  – However, many youths reveal more on paper or computer than if asked in direct interviews
The MAYSI-2

Mass. Dept. of Youth Services
and
William T. Grant Foundation
1995-1999

MacArthur Foundation
2000-2008

www.maysiware.com/MAYSI2.htm

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History of the MAYSI Project

1994
Identified the need, developed the prototype

1996
Field testing, norms, initial validation

1998
Preparation for release

2000-8
Released to JJ agencies, technical assistance--National Youth Screening & Assessment Project

2002-5
Developed national norms and MAYSIWARE

2003-5
Evaluation of impact of MH screening on MH services in JJ programs

2006-11
Technical assistance for MacArthur Foundation’s “Models for Change” Initiative
Used Statewide in Probation, Detention or Corrections in 42 States
Quality of the MAYSI-2

- **Meets the format requirements for MH screening**
  - Standardized, brief, easy, inexpensive, staff-friendly

- **Research indicates that MAYSI-2 scales measure the symptoms that they are intended to measure**

- **As with all brief MH screening tools**...
  - doesn’t offer accurate prediction of psychiatric diagnosis
  - doesn’t provide sufficient information for long-range treatment (disposition) planning
Format of the MAYSI-2

- 52 item questionnaire, scoring key, and summary form
- Youth self report—circle “yes-no”
- 5th-grade reading level; English and Spanish
- 10-15 minutes for administration and scoring
- MAYSIWARE™ software for MAYSI-2 administration, scoring, data-basing
MAYSI-2 Content

- Items ask youth if the behavior, thought or feeling in the item is “true for you”
  - For six primary scales, “In the past few months”
  - For Traumatic Experiences scale: “Have you ever...”

- A few items do not contribute to any scales (included for research purposes)
The Six Primary Scales...

ALCOHOL / DRUG USE  8 items
ANGRY-IRRITABLE  9 items
DEPRESSED-ANXIOUS  9 items
SOMATIC COMPLAINTS  6 items
SUICIDE IDEATION  5 items
THOUGHT DISTURBANCE (boys)  5 items

And an additional scale...

TRAUMATIC EXPERIENCES  5 items
Meanings of the MAYSI-2 Scales and Scores
Meanings of scales...

- **Alcohol/Drug Use**
  - Frequent use of alcohol/drugs
  - Risk of substance abuse or withdrawal reaction when access to drugs is limited
  - **Note:** under-reporting common in youths not in secure custody

- **Angry-Irritable**
  - Experiences frustration, lasting anger, moodiness
  - Risk of angry reaction, fighting, aggressive behavior

- **Depressed-Anxious**
  - Experiences depressed and anxious feelings
  - Risk of depression or anxiety disorders

*continued*
Meanings (cont’d) ....

- **Somatic Complaints**
  - Experiences bodily aches/pains associated with stress
  - Risk of psychological distress not otherwise evident

- **Suicide Ideation**
  - Thoughts and intentions to harm oneself
  - Risk of suicide gestures or attempts

- **Thought Disturbance (boys only)**
  - Unusual beliefs and perceptions
  - Risk of thought disorder
  - Why only boys?
  - Can be scored for girls, but do not use the TD norms
  - **Note:** sometimes report “strange thoughts” because of drug use, not psychotic thought disturbance

*continued*
Meanings (cont’d)....

- **Traumatic Experiences**
  - Unlike the other six scales:
    - Lifetime exposure to traumatic events
    - Not intended to measure a symptom—merely experiences that may increase risk of psychological stress
    - Only to provide information to explore
    - No cut-offs

So the other six scales are the primary ones used in making decisions about youths’ immediate needs.
Cut-Off Scores

- Each of the six clinical scales has two levels of cut-off scores:
  - Caution (clinically significant)
  - Warning (top 10%)

- How cut-off scores were developed
  - Used Mass. and Calif. samples (over 4000 youths total)
  - Caution equals clinically significant range based on more comprehensive measures
  - Warning identified as top U.S. 10% in JJ programs
Cut-Off Scores (cont’d)…

- Reliability and meaning of the cut-off scores
  - A majority of youths with serious mental disorders are above the Caution cut-off
  - But as many as one-third above Caution cut-off will not have a mental disorder
  - Does not mean that every youth over cut-off on any scale needs immediate treatment
Discussion Break 3

• Do the things that MAYSI-2 identifies seem relevant for probation concerns?
Administration of the MAYSI-2

*Note*
Every probation office using the MAYSI should have at least one MAYSI-2 Manual (either magenta 2006, or blue 2003 with updates)
To whom?

We recommend the MAYSI be given to every probation case. However....

- Norms only apply safely to 12-17 year olds

- Some youths may refuse
  - Nothing is gained by “forcing” them
  - Special observation of them may be important

- Some youths may be so “upset” that they cannot attend to the task at the moment. Try later.

- Typically no more than twice every four weeks
Where?

Anyplace with some privacy, few distractions, and accessibility to staff

- Privacy needed so that youth is not concerned about others seeing answers
- Visual and noise distractions can reduce many youths’ attention to the task
- Youth should be located so as to always be visible by staff
- Staff should be close-by in order to answer youth’s question while taking the MAYSI-2
What is the youth told?

Recommended: Nature of the items, purpose, and how results will be used

- **Guidelines for Probation:**
  - **Nature of items**: “About your thoughts and feelings recently”
  - **Purpose**: “To help us know about any special needs you might have, and to keep you safe”
  - **How results are used** (what youth are told will vary, depending on policies of each probation department regarding use of the MAYSI results)

- **Assume a helpful attitude toward the youth, not threatening or forceful**
Using MAYSWARE™

A software program that...

- Records identifying information
- Presents items on screen and audio in English or Spanish
- Scores the MAYSIs and produces a report of results indicating scale scores over cut-offs
- Stores cases in database, and adds case results to facility graphs that accumulate automatically
- Facility graphs can be viewed by gender, age and race, compared to national norms, and compared to facility results for earlier months or years
- Accumulated cases can be downloaded to central files for analysis involving other agencies system-wide
MAYSIWARE (cont’d)

• Research suggests that...
  – There are no differences in MAYSI-2 scores for paper-pencil versus computer administration
  – Youths prefer computer to paper-pencil
  – When youths need to have items read to them (because of reading problems), they tend to report more freely to an audio computer than to a staff member reading to them
Discussion Break 4

- Are the procedures for administration clear, or do they need further clarification?
- Are there any parts of the administration procedures that might pose problems for staff who are doing screening?
- Are there things that administrators wish to add to the description of MAYSI-2 administration?
Using the Scores to Make Decisions
Defining “Screened In”

- MAYSI-2 scores are used to determine whether a youth is:
  - Screened out—needs no further follow-up
  - Screened in—requires a staff follow-up response

- “Screened in” means the youth’s scores are above the Caution or Warning cut-offs on certain scales

- Which scales and cut-offs define “screened in”?
  - Not defined by the MAYSI-2 manual
  - Determined as a matter of policy by your administrators (and therefore may be different between jurisdictions across the U.S.)
Examples of “screened in” policies in use elsewhere:

- **Detention centers in several states…**
  - Over **CAUTION** cut-off on Suicide Ideation
  - Over **WARNING** cut-off on any **TWO** of the six clinical scales (TE excluded)

- **A Federal research study …**
  - Over **CAUTION** cut-off on Suicide Ideation
  - Over **CAUTION** cut-off on any **TWO** other scales
  - Over **WARNING** cut-off on any **ONE** scale

- **Different policies “screen in” different proportions of youths**
  (e.g., 20% for the first above, 40% for the second)
Discussion Break 5

- Discussion of the local probation department’s “screened-in” policy (if it has been determined)
Screened-in youths require a staff “follow-up response”

- The sole reason for mental health screening is to respond in some way to youths who are “screened in” for possible needs.

- Types of follow-up responses (explained later)
  1. “Second screening”
  2. Obtain emergency clinical assessment
  3. Schedule for a non-emergency comprehensive assessment
  4. Referral to mental health diversion options

- **Note:** Which of these responses is relevant for you will be determined by your administrative policies.
1. “Second Screening”

- Required whenever youth meets the warning cutoff on any of the clinical scales
- Involves further questioning by staff responsible for screening, using MAYSI-2 “Second Screening” method
MAYSI-2 Second Screening

- 2006 MAYSI-2 Manual includes “Second Screening” forms for each MAYSI-2 scale
- Forms guide you in asking a few more questions when youth scores above cut-off on a scale
- Purpose is to determine whether youth’s score above cut-off might not require immediate response (examples, next slide)
Examples....

- Youth scored high on Suicide Ideation because she was feeling suicidal a few weeks ago but is not feeling that way now.

- On Thought Disturbance, youth scored above cut-off because he “sees and hears things others don’t,” but only when he is high on drugs.
MAYSI-2 Second Screening (cont’d)...

Procedure...

- Staff screener tells youth s/he would like to “ask a few questions,” because “you answered a number of questions indicating that you felt [depressed, like harming yourself, etc.]”

- See the questions on the relevant scale’s second screening form...ask, and record youth’s responses
2. Obtain Emergency Clinical Assessment

- Schedule “ASAP” interview with mental health professional qualified to make individual assessment

- Types of assessments
  - MH social worker or psychologist
  - On-call psychiatric or psychological consultant
  - By arrangement with local child community mental health services

- May result in referral for emergency mental health services (e.g., medication, inpatient care)
3. Non-Emergency Comprehensive Mental Health Assessment

- If condition does not appear to present immediate threat
- Schedule for assessment by MH professional
- Objective: Determine whether youth may have special mental health needs or for planning disposition (MAYSI doesn’t do that)
4. Mental Health Diversion

• Some juvenile justice systems have diversion options for youths with mental disorders

• Mental health screening may identify youths who are eligible for diversion
• What questions do you have about “second screening?”

• What questions do you have about when you might apply the other types of follow-up responses?

• Discuss what happens when a decision must be made and the matter is not “clear cut.” Who is authorized to make “final decisions” when the answers aren’t obvious?
What NOT to Do with MAYSI-2 scores

- Don’t expect them to suggest “diagnoses”
- Do not trust the scores to be valid for a youth beyond about 2-4 weeks after intake
- Do not use the scores as a sole or primary basis for making long-range treatment plans
Do not share MAYSI-2 scores

- **Recommended...**
  Actual MH screening *scores* should not be shared outside of the juvenile probation department

- **Reasons...**
  - Brief MH screening scores are not valid for making disposition plans
  - If others need to be told that the youth has a serious mental health need, this can be done without providing actual scores
Many states’ probation departments have decided **not** to communicate actual MAYSI-2 scores to others.

Discuss how you would communicate results, when necessary, without...

- describing actual scores
- providing information that might be used in the youth’s adjudication
Using the MAYSI-2: Quality Assurance Guidelines

- **Staff Training**
  - Done by an expert or peer master trainer
  - Covers same content as today’s session
  - Staff should be trained in how to set up MAYSIWARE in preparation for screening and how to generate individual reports

- **Booster Training**
  - Minimum of once per year

- **Checking fidelity to the implementation protocol**
  - Screening the target group of youth stated in the protocol’s objectives
  - Check a sample of youth to see whether they are receiving the MH screen in a timely fashion
  - Check to see that youth who met the critical case criteria actually received the appropriate ‘responses’
NYSAP’S Support Services

• **National Youth Screening & Assessment Project (NYSAP)**, 40 hr/week at UMass Medical School
  Samantha.Fusco@umassmed.edu
  Thomas.Grisso@umassmed.edu

• MAYSI-2 and MAYSWARE ™ website
  www.maysware.com

• Professional Resource Press (Sarasota, FL)
  www.prpress.com
  Publisher of MAYSII-2 manual and MAYSWARE