

MENTAL HEALTH SCREENING TOOLS AMONG MALE JUVENILE OFFENDERS IN INCARCERATED JUVENILE: A LITERATURE REVIEW

Prasetyo Aji Nugroho¹, *Somporn Rungreangkulkij¹

¹Psychiatric and Mental Health Nursing, Faculty of Nursing, Khon Kaen University, Thailand

*Corresponding author: somrun@kku.ac.th

ABSTRACT

Background: Juveniles will have high levels of mental health problems during incarceration. The prevalence of mental health problems in male adolescents increases conduct disorder risk. Additionally, male juvenile offenders, possibility, will have a psychotic illness, major depression, ADHD, and PTSD. A previous study reported that male juveniles incarcerated experience psychological distress: sleep disturbance, depression, hostility, inferiority, and anxiety. The increasing frequency of mental health problems in incarcerated juveniles begins with mental health screening. Screening aims to recognize high-risk juvenile offenders who need medical care and those requiring further assessment.

Purpose: This study aims to describe the mental health screening tool among male juvenile offenders in incarcerated juveniles.

Methods: The method of this study is a literature review.

Results: There are many mental health screenings for incarcerated across the world. Each country has a standard to measure mental health problems using mental health screening. Considerations for mental health screening are ease of access, time and cost-effectiveness, and cross-cultural validity.

Conclusion: This review will illustrate the significance of mental health awareness among male juvenile offenders. Therefore, the psychiatric and mental health nurse is essential in caring for incarcerated male juvenile offenders.

Keywords:

Mental health screening tools; Mental health problems; Male juvenile offenders; Incarcerated juvenile

Introduction

More serious mental problems have routinely been documented in correctional settings compared to the general population^{1,2}. Poor mental health is not only among young adults in prison³ but also among juvenile offenders during incarceration⁴. The study from Beaudry⁵ reported that male juvenile offenders, most of the population in juveniles incarcerated, have severe mental problems of conduct problems, additionally, major depression, psychotic issues, and ADHD.

Addressing high prevalence rates of mental health problems in incarcerated juveniles begins with mental health screening. Mental health screening is conducted when male juvenile offenders interact with the juvenile justice system within 24 hours, which aims to recognize juvenile offenders who need medical care in high-risk crises and those requiring further consideration. The study by Vincent⁷ and Evans⁸ elucidates the purpose of screening. First, identify juvenile offenders who need an immediate response at the time of the first contact with the juvenile system, such as those who need treatment or suicide control placement. Second, screening is likely a triage process to classify those more likely to have a condition requiring additional treatment.

The previous study's systematic review reported correctional institutions' most promising mental health screening tools⁹. However, this study focused on young adult offenders. Currently, there is no updated review on mental health screening in juvenile offenders.

Based on a literature search from various studies, the author found that in 41 American states, Australia, New Zealand, England, Canada, and Korea. The Massachusetts Youth Screening Instrument-Second Version (MAYSI-2) included a 52-item self-report survey. In

the Netherlands, the screening tools used are the Baris Raads Onderzoek (Basic Protection Board Examination, or BARO). The mental health screening form in Britain is called the Mental Health Screening Questionnaire Interview for Adolescents (SQIFA)⁶.

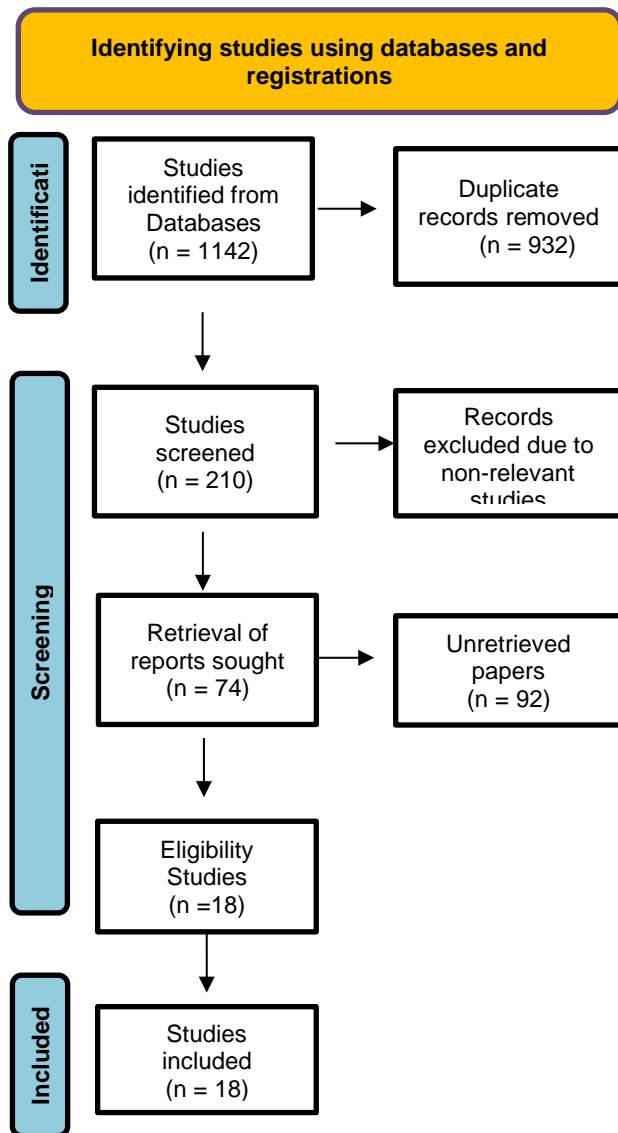
In Indonesia, the screening steps are the officer recording the data and the contents in the screening form mental health, the officer submitting mental health screening data to medical staff, and Medical Officers receiving mental health screening data. In Indonesia, screening for juvenile offenders uses the Strengths Difficulties Questionnaire, a self-report survey, which includes a 25-item covering mental health problems such as emotional symptoms, behavior problems, hyperactivity, and peer problems¹⁰.

In this literature review, we aimed to identify and describe the mental health screening among juvenile offenders in incarcerated juveniles. The mental health screening tools included unidimensional and multidimensional mental health screening to identify the mental health status during incarceration.

Methods

This literature review begins with topic selection, strategy for searching, and selection of paper. The author conducted a literature review from 2011 to 2021 by examining six digital databases: Science Direct, Medline, PubMed, ProQuest, and Google Scholar, as well as manual journal searches. The author followed the PRISMA reporting and the analytical guidelines¹¹. The terms of the search strategy included: mental health AND screening assessment OR tools AND adolescent offenders OR young offenders OR juvenile OR youth detained AND mental illness OR psychological distress OR mental disorder OR mental distress OR mental health problems AND prison OR incarcerated OR detention.

This review's selection criteria include 1) papers reporting research on mental health screening, 2) a full-text peer-reviewed paper, thesis, and guideline book published in English, and 3) All young male participants or the majority of young males aged 24 and below. Exclusion criteria examined only young females or the majority of young females.



"Figure 1: Review Process PRISMA FLOWCHART"

Results

Overview of mental health screening tools

There are two types of mental health

screening and management for juvenile incarcerated: multidimensional and unidimensional. Multidimensional refers to numerous dimensions or aspects, whereas unidimensional refers to a single extent or part. The multidimensional indicator scale measurement helps detect the components that impact it. On the other hand, Unidimensional can only measure specific indications and has no depth or breadth¹².

There are eight multidimensional tools available. The following multidimensional tools are used: Massachusetts Youth Screening Instrument—2nd Edition (MAYSI-2), The DISC Predictive Scales (DPS), Global Appraisal of Individual Needs - Short Screener (GAIN-SS); Child and Adolescent Needs and Strengths (CANS), The Westerman Aboriginal Symptoms Checklist-Youth (WASC-Y), Strength and Difficulties Questionnaire (SDQ), Baris Raads Onderzoek/ Basic Protection Board Examination (BARO), Screening Questionnaire Interview for Adolescents (SQIFA)^{6,13,14,15,16,17,18,19,20,21,22,23}.

Four unidimensional tools are available. Then there's the Car, Relax, Alone, Forget, Friends, and Trouble 2.1 (CRAFT 2.1), the Suicidal Ideation Questionnaire (SIQ), the Suicidal Behaviors Questionnaire-Revised (SBQ-R), and the Adolescent Subtle Screening Instrument (Adolescent SASSI)^{7,13,19,21,24}.

Description of mental health screening tools

The MAYSI-2 is a 52-item, dichotomous (yes/no) mental health screener used to recognize juveniles who may require additional examination. The MAYSI-2 comprises seven subscales: alcohol/drug use, angry/irritable, depressed/anxious, somatic symptoms, suicidal thoughts, thinking disturbance, and traumatic events. Each person needs between 10 and 15 minutes to administer it. It has strong internal consistency (Cronbach's

alpha per subscale, range: 0.61-0.86)^{13,14,15,16,17,25,26}.

Counselors can use the DPS to appraise psychological morbidity and recognize juvenile adolescents requiring mental health care. Only the most predictive aspects of mental health issues are included when coupled with the more comprehensive DISC (including substance abuse). The 56 items in the inventory are from the previous year. The administration takes about 15-20 minutes. The subscale sensitivity range is 0.40-1.00, and the specificity range is 0.40-0.98^{18,27}.

The GAIN-SS is widely used as a systematic method for detecting adolescent behavioral and mental health treatment requirements. This instrument category is crime and violence, substance disorders internalizing disorders, and externalizing disorders, covered by a quick 5-10-minute tool created. The reliabilities of this measurement ranged from 0.61 to 0.70^{19,20,21}.

For juvenile services, the CANS, a multipurpose tool, was created to support quality improvement activities, monitor service outcomes, and assist in decision-making processes such as level of care and service planning. The six domains are behavioral/ emotional needs, caregiver needs and resources, cultural factors, life functioning, risk behaviors, and strengths. The administration time is 45 minutes. Case records are reliable (0.84), whereas live cases are more reliable (above 0.90)^{21,28}.

With the help of the WASC-Y, it is possible to identify indigenous youths at risk for depression, suicidal ideation, drug and alcohol abuse, impulsivity, and anxiety. It also includes easily identifiable cultural measures of resilience. It has 52 questions and is intended for young people aged 12 to 17. It takes around 15-20 minutes to administer. The dependability factor is 0.70^{23,29}.

The SDQ, a behavioral screening questionnaire, has 25 items for children ages 3 to 16, classified into five categories: emotional symptoms (5 items), conduct difficulties (5 items), hyperactivity/inattention (5 items), peer interaction problems (5 items), and prosocial behavior (5 items). It takes between 10 and 20 minutes to administer. The reliability is 0.73, the sensitivity is 0.67, and the specificity is 0.68^{10,22,30}.

The BARO evaluates psychopathology and creates a template for each young person's final Report. The interview includes nine topics: eight regarding the juvenile's growth and functioning and one about living conditions: family, school, and community. Delinquent conduct, physical and psychological development, internalizing difficulties, externalizing problems, functioning at home, school, leisure time, and environment/circumstances are the domains. Each section has roughly 20 questions. It takes 40-125 minutes to complete. The validity is 0.69, and the reliability is 0.70. The specificity is 0.69, and the sensitivity is 0.81^{6,31}.

The SQIFA is 16 questions about emotional development and mental health. It includes eight common or significant adolescent mental health problems: alcohol and drug use, depression, anxiety/ worries, trauma and psychotic symptoms, self-harm, and ADHD/ hyperactivity. The reliability coefficients for overall needs assessment interview scores varied from 0.73 to 0.85. It takes 15-20 minutes to administer^{6,32}.

The CRAFFT is a drug and alcohol screening test that identifies substance use, drug-related riding/driving risk, and substance use disorder for juveniles aged 12 to 21. Each of the six questions that assess the amount of service can be answered yes (1 point) or no (0 points) (0 points). Everyone who has used alcohol or any other substance in the previous 12 months earns a score between 0 and 6. It

takes around 1-2 minutes to administer. The sensitivity, specificity, and internal consistency of the CRAFFT instrument ranged from 0.61 to 1.00, 0.33 to 0.97, and 0.65 to 0.86, respectively^{13,33}.

The SIQ is a 30-question self-report screening tool for suicidal thoughts in adolescents individually or in a group setting. The SIQ is intended for adolescents in grades 10-12. The administration takes 10-20 minutes. The coefficients of dependability are 0.97^{7,19,34}.

Researchers intended to detect suicide risk among youths aged 13 to 18 using the SBR-Q, a psychological self-report questionnaire. The youngsters have five minutes to complete the four-question test. Reliability is 0.87, sensitivity is 0.83, and specificity is 0.96¹⁹.

SASSI for teenagers, a self-report screening instrument, examines alcohol and drug dependence symptoms and other indicators. In addition to 25 questions, the Adolescent SASSI employs a third-grade reading level to assess both evident and subtle indicators of alcoholism. It takes 15 minutes to administer. The dependability is 0.88^{21,24}.

Table 1. Multidimensional Tools

No	Mental Health Screening	Type	Strength	Weaknesses
1.	Massachusetts Youth Screening Instrument—2nd Edition (MAYSI-2) ^{13,14,15,16,17,25,26}	Electronically (web-based) or on paper	1. The tools used a nationwide sample of imprisoned children. The internal consistency of this scale is relatively high (Cronbach's alpha per subscale, range:	1. Take time longer to administer. 2. A clinical diagnosis cannot be made using the MAYSI-2

			0.61-0.86), and it has been normed. 2. Children can be given affordable tools within 48 hours after being admitted to a correctional institution. 3. The ability to detect juveniles who exhibit signs of distress that are indicative of illnesses, as well as those who express thoughts and actions	
2.	The DISC Predictive Scales (DPS) ^{18,27}	self-administered (paper and computer) audio administered, computerized interview	1. the DPS is potentially a set of very cost-effective diagnostic tools. 2. The DPS can reliably identify patients who can be spared additional diagnostic inquiries in any area. Such an approach has the potential to speed up formal diagnostic	1. Take time longer to administer. 2. Its cross-cultural validity has not been examined

			interviews, an If you have a full DPS, you can utilize it to screen properly for cases of particular DSM-III	
3.	Global Appraisal of Individual Needs – Short Screener (GAIN-SS) ^{19,20,21}	the paper version, electronic administration via gaincc.org, and interviewing	<ol style="list-style-type: none"> 1. Quickly and accurately screen 2. Cost-effectiveness 3. Reliabilities (ranging from .61 to .70) 4. Other youths are from various backgrounds (clinical and non-clinical settings). 	<ol style="list-style-type: none"> 1. There is no suicide scale; nevertheless, the Internalizing cluster has one item about suicidal thoughts. 2. Need more time to interview
4.	Child and Adolescent Needs and Strengths (CANS) ^{21,28}	Online (Web-based) and Paper-based	<ol style="list-style-type: none"> 1. Case records have more excellent reliability (0.84), while live cases might have reliability of above 0.90. 2. It has also been used to distinguish 	<ol style="list-style-type: none"> 1. It is not a self-report questionnaire. 2. The staff needs the training to obtain certification to interviewing the

			the needs of children in urban and rural settings	juvenile 3. Take time longer to administer.
5.	Westerman Aboriginal Symptoms Checklist– Youth (WASC-Y) ^{23,29}	Paper-based	<ol style="list-style-type: none"> 1. The reliability is 0.70. 2. Identify aboriginal juveniles at the first stages of risk and deal with risk mental health problems. 	<ol style="list-style-type: none"> 1. Take time longer to administer. 2. Necessary Purchases 3. It has been used in aboriginal.
6.	Strength and Difficulties Questionnaire (SDQ) ^{10,22,30}	Paper-based and web-based via https://www.sdqscor.e.org/	<ol style="list-style-type: none"> 1. It can be used for large groups or small ones. 2. Cost-effectiveness. 3. Easy to use 	<ol style="list-style-type: none"> 1. The standard of screening use paper-based.
7.	Baris Raads Onderzoek/ Basic Protection Board Examination (BARO) ^{6,31}	Interview	<ol style="list-style-type: none"> 1. It can identify psychopathology. 2. It is helpful to educate the judicial authorities 	<ol style="list-style-type: none"> 1. As a result, this instrument does not conform to all best practice guidelines since it takes training and is time-consuming to administer and score. 2. Its cross-cultural validity has not

				been examined.
8.	Screening Questionnaire Interview for Adolescents (SQIFA) ^{6,32}	Paper-based and interview	<ol style="list-style-type: none"> 1. This tool is a quick and comprehensive self-report questionnaire that contributes to risk assessment and monitoring. 2. The SQIFA has relatively high sensitivity and specificity rating. 3. It is meant to be used repeatedly over time and does not need clinical expertise. 	<ol style="list-style-type: none"> 1. The SQIFA is not required to be given when a youngster joins a youth custodial facility, but only when they come into touch with the youth justice system, which falls short of suggested best practices. The SQIFA is not required to be given when a youngster joins a youth custodial facility, but only when they come into touch with the youth justice system, which falls short of suggested best

				practices.
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Table 2 Unidimensional Tools

No	Mental Health Screening	Type	Strength	Weakness
1.	Car, Relax, Alone, Forget, Friends, and Trouble 2.1 (CRAFT 2.1) ^{18,27}	Electronically (web-based) or on paper	<ol style="list-style-type: none"> 1. No time longer to administer. 2. It may be more suited to adolescents with easily memorized mnemonics, self-administering capabilities, and the ability to computerize quickly. 3. The sensitivity, specificity, and internal consistency of the CRAFT instrument ranged from 0.61 to 1.00, 0.33 to 0.97, and 0.65 to 0.86. 	Its cross-cultural validity has not been examined
2.	Suicidal Ideation Questionnaire	Paper and pencil, Online administration	<ol style="list-style-type: none"> 1. Reliability coefficients are 0.97 2. A diverse variety of adolescents 	1. Necessary Purchases to use the

	e (SIQ) ^{7,19,34}	n, and scoring via PARiC connect	in clinical and non-clinical settings, as well as from many ethnic origins	instrument 2. Some research has been done on its usage in certain situations, although it is still restricted.
3.	Suicidal Behaviors Questionnaire- Revised (SBQR) ¹⁹	Paper-based	<ol style="list-style-type: none"> 1. Due to its public domain status, simplicity, ease of administration, and the absence of material costs. 2. Youth are from various backgrounds, both clinical and non-clinical. 3. Reliability 0.87, Sensitivity 0.83 and specificity 0.96 	1. Use in juvenile justice settings has been limited
4.	Adolescent Substance Abuse Subtle Screening Instrument (Adolescent SASSI) ^{21,24}	Online (Web-based) and Paper-based	<ol style="list-style-type: none"> 1. Easy to use 2. Very accessible 3. Quick to take and score 4. It can be used for large groups or small 	<ol style="list-style-type: none"> 1. Necessary Purchases 2. Take time longer to administer. 3. It has low reliability on the indirect score.

Discussion

Mental health screening is a crucial component of conducting the institution-based program effectively that observes mental health status among male juvenile offenders⁶. Our review identified that most mental health screening tools, either multidimensional or unidimensional questionnaires, have good reliability and validity^{10,13,14,15,16,17,22,25,26,30}. However, partially, its cross-cultural validity has not been examined^{6,18,27,31,13,33, 21,23,24,29}. Therefore, these mental health screenings need reliability and validity in several countries.

The mental health screening tools which have easy to use and highly accessible are SDQ, CRAFFT 2.1, Adolescent SASSI, and SBR-Q^{10,22,30}. Some screening tools need to purchase for training and accessing the application. However, MAYSI-2, DPS, GAIN-SS, SDQ, and SBR-Q have low cost-effectiveness^{10,13,14,15,16,17,18,19,20,21,22,25,26,27,30}. Therefore, these tools do not need much financing and can reduce institutional financing expenditure.

The duration for filling out the questionnaire, which has a quick filling, is CRAFFT 2.1, around 1-2 minutes^{18,27}. Next, The MAYSI-2, WASC-Y, SDQ, SIQ SBR-Q, and Adolescent SASSI need 5-20 minutes to administer the questionnaire^{7,10,13,14,15,16,17,19,21,22,23,24,25,26,29,30,34}. These mental health screenings are taken by self-report. The staff does not need to wait for the male juvenile offender for a long time to finish the questionnaire. On the other hand, mental health screening tools that have to take longer to execute more than 20 minutes are DPS, GAIN-SS, CANS, BARO, and SQIFA^{6,18,19,20,21,27,28,31,32}. These screening tools are not only filling the questionnaire but also interviewing.

Conclusions and Suggestions

Mental Health screening is an essential component of an incarceration mental

health plan, and screening techniques appear to have improved in recent years. This review only describes and explains the types of mental health screening. The mental health screening in this review has strengths and weaknesses. Therefore, the use of mental health screening is based on incarceration's needs. Juvenile detention must have considerations before using the questionnaire, such as adequate time and cost and feasible mental health screening.

Juvenile incarceration must provide psychiatric and mental health nurses. The role of Psychiatric and mental health nurses is essential to detect mental health problems among male juvenile offenders. Mental health screening is crucial to identify mental health problems. Therefore, male juvenile offenders can prevent mental illness and mental disorders.

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