Mental Health and Substance Use in the Juvenile Justice Population of North Carolina

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This article will describe the mental health/substance use issues of justice-involved youth, highlight the role that trauma and adverse childhood experiences (ACEs) have in the development of these issues, discuss what services are offered at the highest levels of confinement, identify the service gaps and needs for this vulnerable population, and briefly examine the anticipated effects of the upcoming North Carolina Raise the Age legislation.

Mental Health Diagnoses and the North Carolina Juvenile Justice Population

Youth with mental and behavioral health issues are overrepresented in the juvenile justice system [1] and this prevalence increases as the youth’s interaction with the system goes deeper. Nationwide every year there are approximately 2 million youth encountering the juvenile justice system. The current estimate is that approximately 50% to 75% of these youth meet current DSM-5 criteria for a mental health disorder [2]. Literature has established that juveniles who experience a deeper level of interaction with the juvenile justice system (ie, confinement in a juvenile detention center or Youth Development Center [YDC]) consistently exhibit higher levels of mental health and substance use disorders [1].

Of the 11,136 North Carolina youth involved in the state’s juvenile justice system in 2018, 21% spent time in a juvenile detention center (N = 2,380), and only 2% (N = 192) were committed to a YDC. The detention centers are typically a short-term transitional placement and the YDC is the highest level of residential confinement within the state. A 2018 point-in-time survey of North Carolina youth confined in a YDC indicated that 97% were diagnosed with at least one mental health diagnosis, 90% had more than one mental health diagnosis, the average youth had three distinct mental health and/or substance use disorders [1].

In the previously mentioned point-in-time survey, 55% of the committed North Carolina YDC population met diagnostic criteria for a Substance-Related and Addictive Disorder (Steinberg). There was a slight statistical difference between genders, with boys (55%) being diagnosed more frequently than girls (47%) (Steinberg). Overall, cannabis-related disorders (90% of these diagnoses) were the most frequent reported substance-related issue, followed respectively by alcohol and tobacco/nicotine usage (Steinberg).

Substance Use and the North Carolina Committed Juvenile Justice Population

A 2018 comprehensive survey of 8th, 10th, and 12th graders indicated that the past-year use of illicit drugs, other than marijuana, is holding steady at the lowest level in over two decades and has declined by 30% in the past five years [3]. Despite the national attention that the continued rise in opioid overdose and death among adults has received, this survey found that the misuse of prescription opioids (in this case Vicodin) dropped over the past five years by 58.4% in 8th graders, 75.4% in 10th graders, and 67.2% in 12th graders [3]. While these trends support a decline in illicit substance use, the age group commonly referred to as “emerging adult” (aged 18-25) continues to have the highest rates of onset of problematic substance use among all age groups.

This survey indicated that the most frequent diagnostic category (89% of the youth) was Disruptive, Impulse-Control and Conduct Disorders (Steinberg). This diagnostic category is typically descriptive of problems with self-control, behaviors that violate the rights of others, and conflict with laws, rules, and authority figures. The survey indicated that the second most common diagnostic category was Neurodevelopmental Disorders (68% of the youth), of which Attention-Deficit/Hyperactivity Disorder (ADHD) and Specific Learning Disorders were most frequently cited. Substance-Related and Addictive Disorders (55% of the overall YDC population) were the third most frequently found diagnoses (Steinberg).
There have been very few instances of youth, in either the detention centers or YDCs, that meet the criteria for opioid dependence. All the committed youth (100%) diagnosed with a substance-related disorder had a co-occurring mental health diagnosis (Steinberg).

**Trauma and Adverse Childhood Experiences (ACEs)**

The point-in-time survey indicated that the fourth most frequent diagnostic category for the YDC population was Trauma and Stressor-Related Disorders (Steinberg). This classification category refers to disorders in which exposure to a traumatic or stressful event is listed explicitly as a diagnostic criterion. The survey indicated that 43% of the YDC population were given a diagnosis consistent with this category; however, there was marked difference between genders with girls (80%) being twice as likely to be diagnosed as boys (40%) (Steinberg). Early exposure to traumatic events and prolonged stress are confirmed to create a negative systemic response unless mitigated [4]. The exposure and duration of trauma and sustained exposure to stress are factors self-reported by many of the youth in juvenile justice and one study found that 92% of justice-involved youth reported exposure to at least one type of trauma, with multiple traumas being the norm [5]. In many cases, facility commitment is the first time youth may have reported these experiences to mental health professionals. The main reported types of trauma exposure among detained adolescents across the country include loss and bereavement (61.2%), impaired caregiver (51.7%), domestic violence (51.6%), emotional abuse/psychological maltreatment (49.4%), physical maltreatment/abuse (38.6%), and community violence (34%) [6].

The high level of exposure to traumatic and stressful events among the committed juvenile justice population is consistent with the vast amount of research that has been conducted on the long-lasting impacts of adverse childhood experiences (ACEs). ACEs are “stressful or traumatic experiences, including abuse, neglect and a range of household dysfunction such as witnessing domestic violence, or growing up with substance abuse, mental illness, parental discord, or crime in the home” [7]. The ACEs studies measure 10 categories of abuse, neglect, or loss that occur before the age of 18. Literature has consistently demonstrated a strong causal relationship between the number of ACEs and subsequent physical and behavioral health risks (ie, smoking, increased likelihood of sexually transmitted diseases, alcoholism, illicit substance use, depression, suicide attempts, heart disease, cancer, liver disease) for individuals who report experiencing three or more ACEs [7]. A 2019 internal survey indicated that among the North Carolina committed juvenile justice population, the averaged reported ACEs score was four, indicating a chronically high level of exposure to stress, trauma, and loss (Kuhns P, director of behavioral health, Division of Adult Corrections and Juvenile Justice, North Carolina Department of Public Safety, unpublished data, 2019). The Substance Abuse and Mental Health Services Administration (SAMHSA) writes that children who are exposed to chronic stressful events “adopt coping mechanisms, such as substance use. Eventually, this contributes to disease, disability and social problems, as well as premature mortality” [8]. Individuals who report experiencing four or more ACEs, as compared to individuals with an ACEs score of zero, have a 700% increase in the risk of alcoholism, double the risk of being diagnosed with cancer, and a 400% increase in the risk of being diagnosed with emphysema [9].

**Efforts to Meet the Complex Needs of the North Carolina Juvenile Justice Population**

When a youth initially encounters the North Carolina juvenile justice system, they are administered the GAINS-Short Screener (GAINS-SS). This screening tool takes approximately five minutes to administer, has 23 items, and identifies areas of need for further intensive assessment across four domains (Internalizing Mental Health Disorders, Externalizing Mental Health Disorders, Substance Use Disorders, and Crime or Violence Problems). To assess change, or find areas that may have been missed, the GAINS-SS is re-administered every 90 days of the youth’s involvement with juvenile justice. When a youth is committed to a North Carolina juvenile justice YDC, they are assigned a licensed mental health clinician, a social worker, and a youth counselor. In the first 30 days following admission the youth completes comprehensive evaluations that assess their current mental health, substance use, educational, and health issues and these assessments guide the individualized treatment goals throughout the duration of the commitment. Due to the increasing complexity of the interaction between mental health, trauma, and substance use, every committed youth receives a full psychological evaluation which includes psychological testing (intellectual functioning, objective personality, and executive functioning), a full clinical biopsychosocial interview, diagnosis, and treatment recommendations. Every youth also receives a full comprehensive trauma assessment within the first 90 days of admission, which determines the level of services the youth requires. The objectivity and validated norms of standardized psychological testing are essential to ensure that the best level of care is offered to the youth. Often several of the psychological testing measures (notably the trauma assessment) are repeated toward the end of the youth’s commitment period to assess what type of therapeutic change has occurred and to guide in determining the level of post-release treatment services needed.

As previously indicated, every youth in the North Carolina juvenile justice system is repeatedly screened for problematic substance use and receives a full assessment when they are committed to a YDC. If the assessment indicates an area of need, the youth will be referred to a substance abuse ther-
apist and can voluntarily participate in both individual and group treatment modalities. Currently there is no substance abuse prevention education that is part of the general YDC programming for all committed youth. SAMHSA indicates that the best practice of youth residential substance use services is a “multi-tiered system of supports that ranges from offering services universally to all students to providing more intensive services for select students based on medical necessity” [10]. There are currently discussions between North Carolina juvenile justice health professionals and Duke University to identify the most appropriate substance use-related educational resources for the YDC population. One anticipated outcome of these dialogues is to develop a skills-based, direct care staff-led training for the youth, which will support resilience development. A recent national survey of juvenile justice staff indicated general agreement that substance use prevention was “highly important” and “part of their agencies’ responsibility” [11].

The role of adverse childhood events as a precipitating agent to behavioral health, substance use, and other concerns needs to be considered in the overall programming design of a YDC. As previously stated, each youth receives a full trauma assessment within the first 90 days of their YDC stay and a repeated battery of psychological screening instruments toward the end of treatment and/or commitment status. Each of the four YDCs across North Carolina has mental health therapists trained in the evidence-based practices of Trauma-Focused Cognitive Behavior Therapy (TF-CBT) and Structured Psychotherapy for Adolescents Responding to Chronic Stress (SPARCS). TF-CBT is a struc-
tured individual therapy modality that uses psycho-education, affect identification and regulation, conjoint caregiver sessions, and eventually an in-depth exploration of the youth’s own narrative of the trauma experience. SPARCS is a 16-week structured therapy which is most often delivered in a group format. This group focuses on the maladaptive patterns of behavior (often coping strategies for traumatic or stressful events) and strategies to foster the youth’s ability to self-regulate in an overall goal to develop meaning and self-acceptance. The youth that receive these services can share and reflect about their own exposure to traumatic experiences, sometimes for the first time, in a safe space and learn prosocial buffering techniques to desensitize the overwhelming ongoing effects of these ACEs.

In addition to implementing therapeutic programs, it is also vitally important to acknowledge the environmental trauma that is inherent to a correctional setting and to examine the practices (ie, strip searches, room confinement, physical restraint, restricted access to families/caregivers, etc.) that may exacerbate these symptoms. Lastly, if a facility is to become truly trauma-responsive there must be an emphasis on the physical and psychological well-being of the front-line staff who often experience the secondary trauma of this work.

**Raise the Age Legislation**

In 2017 the Juvenile Justice Reinvestment Act was passed in North Carolina. This act increased the age of juvenile court jurisdiction, which previously expired on a youth’s 16th birthday. As of December 1, 2019, offenses committed by 16- and 17-year-olds (ie, lower level felonies and misdemeanors) will remain under juvenile court jurisdiction. This legislative change was based on the vast amount of research supporting the notion that executive functioning abilities (ie, impulse control, delayed gratification, future orientation, resistance to peer pressure, etc.) increase with age and this increased psychosocial maturity has a correlational effect on desistance from criminal offending behavior [12].
This transitional age range (ie, aged 16-25 years) is strongly associated with the emergence of complex mental health diagnoses [13] and the highest rate of problematic substance use among all age groups [14]. It is also notable that the transitional age population has the lowest rate of utilization of community mental health and substance use services [15]. It is anticipated that the North Carolina juvenile justice system will need to increase its clinical services array as this legislative change goes into effect.

**Summary**

The mission of North Carolina Juvenile Justice is “a commitment to the reduction and prevention of juvenile delinquency by effectively intervening, educating and treating youth in order to strengthen families and increase public safety” [16]. In order to increase public safety, it is essential that the juvenile justice system continues to use its resources to understand the unique barriers that these youth face. For many, mental health issues, illicit substance use, and exposure to early childhood trauma and loss present very real challenges to achieving the desired prosocial goals. In order to promote this mission’s success, North Carolina’s juvenile justice system actively partners with invested community stakeholders in continuing to push for programming, policies, and practices that actively attempt to reduce the stigma inherent to mental health/substance use issues and strive to create an environment that can promote healing from early childhood trauma and loss. NCMJ

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