Screening, diagnosis, and intervention with juvenile offenders

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This article overviews the research regarding youth with FASD in the juvenile justice system and describes three programs in the United States in which juvenile offenders are screened for FASD, then diagnosed and provided interventions specific to their needs. Programs in Colorado and Minnesota identify youth placed on probation and a program in Ohio was within an inpatient facility for delinquent youth. Each program has raised the awareness of providers so that the needs of the youth with FASD can be met more appropriately. The goals are to help these youth function better so that they will have lower rates of recidivism and a better chance of becoming productive citizens. The large number of youth identified in these projects demonstrates the importance of increasing awareness and identification of FASD in juvenile courts.

KEY WORDS: *FASD, screening, youth, courts.*

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Juvenile offenders are an important population in which to identify FASD. This article will overview the research regarding youth with FASD in the juvenile justice system and describe three programs in the United States in which juvenile offenders are screened for FASD, then diagnosed and provided interventions specific to their needs.

The functional brain damage associated with prenatal alcohol exposure may leave an individual at risk for neurobehavioral impairments often associated with and seen in juvenile offenders. Due to the specific secondary disabilities that result from prenatal exposure and the typical disabilities found among the young offender population, many feel that FASD are overrepresented in this population.

Most professionals in the field of FASD are very familiar with the classic studies conducted in Washington State, by Dr. Ann Streissguth and her colleagues regarding secondary disabilities (Streissguth, Barr, Kogan, & Bookstein, 1996; Streissguth, Bookstein, Barr, Sampson, & Young, 2004). Looking at a variety of secondary disabilities associated with the primary disabilities of individuals who were seen in her diagnostic clinic, Streissguth et. al. found an overall rate of any contact with the law to be approximately 60%. However, this rate included an adult population. Other studies which have specifically investigated a young offenders population have found varying prevalence rates of 23.3% (youths diagnosed with FAS remanded to a forensic psychiatric assessment unit) and 24% (combined diagnosis of FAS and FAE in a Canadian forensic facility referred for education) (Fast, Conry, & Loock, 1999; Burd, Martsolf, & Juelson, 2004).

In British Columbia, a Web-based survey of probation officers conducted by Munro et. al. (cited in Conry & Kwadwo, 2010), found 27.3% of youths, among a sample of 484, were "at risk" for FASD. In this particular study, the authors noted that 60% of the youths would have been missed had information specific to FASD not been included in their screening

tool. It is not a big leap to assume that other programs working with youth offenders, unfamiliar with FASD, may have the same issues of under identifying or misdiagnosing youths with FASD. When these same researchers followed a group of youths with FASD through adolescence and adulthood, 60% of those individuals age 12 and older reported having trouble with the law (Conry & Fast, 2000).

If one looks to the most recent prevalence rate of FASD in the general United States population, estimated at 2-5% by May and his colleagues (2009), not only would youths with prenatal exposure to alcohol be overrepresented in the offender population, but they also may not even be identified.

As more and more adolescents with prenatal alcohol exposure enter the juvenile justice system, it is imperative that adequate screening tools be utilized. The purpose of any screening tool used would be to identify precursors and indicators of FASD in an adolescent who then would be referred for a more comprehensive assessment. This, in turn, would result in more appropriate case management recommendations. It is the contention of the current authors that all youth offenders should be screened for prenatal alcohol exposure and its sequel.

An important issue in screening is the fact that there is no single screening tool for FASD in the youth offender population that is universally used and accepted. Different organizations working with young offenders have different reasons to screen, and different professionals who would use the screening tool. Front line personnel, probation officers, and staff in youth houses and forensic facilities need a quick screening tool to adequately identify those youths in need of more specialized services and assessments. This tool not only needs to be quick and include questions to obtain general information, but include questions to elicit specific information directly related to the criteria for FASD and the use of alcohol during pregnancy.

The Asante Center in British Columbia developed a screening and referral guide to be used by probation officers (Conry & Kwadwo, 2010). The purpose of the guide is to "increase capacity and develop confidence" in the Canadian Probation Officers when trying to identify those adolescents needing a full assessment for Fetal Alcohol Spectrum Disorder (FASD). This screening tool has been very effective in trying to identify those adolescents who are at risk for FASD.

Goh et al. (2008) reviewed various screening tools in different populations and discussed the results of four programs in the youth offender population, including the Asante Center. The three other programs, in various regions of Canada, had high success rates in identifying youths with FASD and high interrater reliability on risk factor items.

Burd, Martsolf, and Juelson (2004) looked at four different screening options, including staff training and resources needed to implement each one in a corrections population, as well as possible limitations. Although none had been normed on a corrections population at the time of publication, Burd and his colleagues suggested screening individuals at risk for FASD, or conducting routine screenings in a corrections population. He suggested that the screening and referral occur with the initial presentation in juvenile justice so that further contact with the justice system could potentially be avoided. Burd developed three different FAS tools to assist with the various screening strategies, ranging from low to high cost and personnel time. As noted in his article, the overall success of the screening tools would allow for better case management as it relates to the individual's FASD, which, in turn, could impact their ability to understand and adhere to justice rules and regulations, probation, parole, and may even prevent recidivism and entry into the criminal justice system.

All researchers agreed there are limitations to screening tools in youth offender programs: there are no validated screening tools, information regarding maternal alcohol use may not be

available, screeners may be resistant to using the screens, and there may be issues of confidentiality and consent (Burd, Martsolf, & Juelson, 2004; Munro Convy, & Lane, 2005).

The remainder of this article addresses three programs in the United States that have shown success in screening youth offenders. These programs are located in the Seventeenth Judicial District of Colorado; Hennepin County, Minnesota; and Double ARC in Toledo, Ohio. Each of these projects were initially funded by Northrop Grumman through the FASD Center for Excellence.[1] Each program also uses a variation of the screening tool developed by an Expert Panel on FASD Screening in Juvenile Courts. The Expert Panel was convened in May 2005 by the FASD Center for Excellence because there were no empirically-tested screening tools for FASD at that time (screening tools for FAS did exist). The Panel was comprised of 14 experts in the fields of FASD and psychological testing in juvenile courts. The Panel was asked to recommend screening methods that could be performed in 20 to 30 minutes by non-clinical staff. They also were asked for referral criteria that would result in at least 80% of those sent for an FASD diagnostic evaluation receiving a diagnosis of FASD. The Panel made recommendations for screening juveniles 8 to 18 years of age and infants and children up to 7 years of age. The basic tool for ages 8-18 is found in Appendix A

FASD screening, diagnosis and intervention in the Seventeenth Judicial District of Colorado[2]

Project summary

The Juvenile Delinquency Court of the Seventeenth Judicial District of Colorado has a Fetal Alcohol Spectrum Disorder (FASD) Project that identifies youth prenatally exposed to alcohol to ensure they receive a diagnosis and appropriate interventions. The goals of the Project are to reduce recidivism, maintain stability of placement, improve school functioning, and improve overall well being.

The probation officers of the Seventeenth Judicial District have been screening delinquent youth for FASD since 2005. The court received funding for FASD screening and intervention from Northrop Grumman and the FASD Center for Excellence in 2005 and again in 2008. The probation officers are all trained in screening and diagnosis of FASD, as well as how to intervene with youth who have this disorder.

Target population

The Seventeenth Judicial District covers part of the Denver Metro area as well as rural areas and small towns around the Denver area. The juvenile delinquency population in fiscal year 2007 consisted of 68% Caucasians, 17% Hispanics, 12% African Americans, 2% Asian, and 2% other. 79% were male and 21% female. The initial target population for the FASD Project included all youth who were adjudicated delinquent and either ordered to undergo a pre-sentence investigation or placed on probation. The population was modified in 2008 to exclude youth over the age of 16, so that the current target population includes youth between the ages of 10 and 16.

Screening

The Delinquency Court orders a FASD Screen and Recommended Treatment for all youth in the target population. Youth in either category (PSI or probation) are assigned to a probation officer.

The probation officer completes the Expert Panel Screening Tool with the adult who accompanies the youth to the intake, fills out a screening form, and takes the pictures required for the FASD Facial Photographic Analysis Software (Astley, 2003). The probation officer completed the screen according to the written procedure found in Appendix B. The guardian signs an extensive release of information form that allows exchange of information between Probation, the FASD Project, and the diagnostic team, among others.

The probation office then emails the completed screening form and pictures of the youth to the project director, who completes a criminal records check of the mother, completes

the facial screen, and makes a determination whether to send the youth for diagnosis. If the youth has a negative screen, meaning that no prenatal alcohol exposure nor FAS facial features have been identified, the probation officer is informed, the information is entered into the FASD Project databases, and the FASD case is closed.

Diagnosis

When the screen is positive, the youth is assigned to the project intervention specialist who assists the family to complete the diagnostic intake information. The Project uses the Sewall Child Development Center Diagnostic and Evaluation (D&E) Team in Denver, CO, for diagnosis. Their diagnostic team includes a pediatrician, a psychologist, a physical and/or occupational therapist, a speech pathologist, and a clinic coordinator. The FASD Project contracts with the D&E Team to provide eight diagnostic assessments per month. The D&E Team uses the University of Washington 4-Digit Code (2004).

The D&E Team requires that they be provided with all available records regarding the youth prior to the diagnostic session. These include all birth, medical, educational, and mental health records, as well as any other evaluations that have previously been done. Intervention specialists collect the required information for the youths to be evaluated. If some of the information is not available, as with, for example, birth records for an adopted child, then the D&E Team will waive the requirement for that document on a case by case basis. When all information is received, the youth is scheduled for a diagnostic evaluation.

Intervention

Once the evaluation and report are completed, and the youth is diagnosed with FASD, the intervention specialists and probation officer meet with the youth and family to develop a plan for fulfilling the recommendations of the diagnostic team. Modifications to the terms and conditions of probation may include such things as calling the youth to remind him of probation and court appointments, helping the youth to meet

curfew by setting an alarm on a cell phone or watch or other modifications based on the disabilities that are identified in the diagnostic report. Other general recommendations may include developing or modifying a youth's Individualized Education Plan (IEP) at school, assisting with vocational training, securing mental health treatment, or obtaining other appropriate services. The probation officer is the primary case manager who monitors the provision of services.

Following this meeting, the intervention specialist meets with any service provider who may have questions about the youth's needs, as well as the school if an IEP modification is needed. The intervention specialist then monitors the progress of the youth and supports specific to the evaluation results that may be needed.

Data

The 17th Judicial District has screened 718 delinquent youth since January of 2006. The data through August, 2010 are in Table 1.

TABLE 1

Seventeenth Judicial District, CO	
Screened for FASD	718
Screened positive for prenatal alcohol exposure	183 (25%)
Completed full FASD diagnostic evaluation	79 (43%)
Received an FASD diagnosis	40 (50%)
Received services and planning based on the recommendations of the FASD diagnostic evaluation	40 (100%)
Clients declined interventions following diagnosis	0

Conclusions

At this time insufficient data is available to determine whether the objectives of the program are being met. One key accomplishment of the project is the awareness and understanding that has been created throughout the court regarding people with disabilities—especially FASD. The presence of FASD screening and the reports of evaluations that have come to the court have created an environment where there is constant awareness of the question of ability to function as

expected. Youth with disabilities are now much more likely to be given sentences appropriate to their abilities and allowed accommodations for known disabilities.

FASD screening, referral for diagnosis and intervention for adjudicated delinquent youth in the juvenile justice systems in Hennepin County, Minnesota[3]

Project summary

Hennepin County Fetal Alcohol Spectrum Disorder Project has provided FASD screening, diagnosis and intervention within Hennepin County's Human Services and Public Health Department in partnership with the Department of Community Corrections and Rehabilitation (DOCCR)—Juvenile Probation since 2008. The goals of the project are to reduce recidivism, maintain stability in placements, create school success, and improve home and overall functioning. The overall goals are consistent with the Hennepin County goals of ensuring the public safety of the community and positive development of youth.

Target population

Hennepin County is a large urban and suburban county that includes the city of Minneapolis, Minnesota. The juvenile delinquency population placed on probation during the year of 2006 (the most recent statistics available) consisted of 53% African American, 28% Caucasian, 6% Native American, 6% Asian or Pacific Islander, 7% unknown and 9% identified with some Hispanic origin (DOCCR, 2008). The target population for the FASD Project is adjudicated delinquent youth ages 10 through 18 who screen positive for possible mental health issues. From August 2008 through August 2010, 227 adjudicated youth screened positive for potential mental health issues.

Service delivery system

Since 2004, juveniles who commit a more serious offense have been mandated by the Minnesota State Legislature to receive a mental health screening (Investigation Statute, 2009). In Hennepin County, youth adjudicated as delinquent by the Court are immediately referred to DOCCR Juvenile

Probation for intake. Once the standard intake process is completed, the youth is screened by a probation officer for potential mental health issues using the Massachusetts Youth Screening Instrument, Version 2 (MAYSI-2). The MAYSI-2 screener refers all youth who meet the threshold for further in-depth assessments, i.e., diagnostic evaluations for mental health diagnoses and recommendations. Currently, the MAYSI-2 screener automatically refers all positive MAYSI-2 youth for an FASD screen. The FASD Project chose this method of screening for two reasons: (a) to ensure screening and diagnostic capacity within the juvenile justice system; and (b) because FASD literature demonstrated a 94% likelihood for potential mental health issues (Streissguth et. al, 1996; Premji, Benzies, Serrett, & Hayden, 2007).

The FASD project social worker uses the FASD Center of Excellence Screening Tool (Appendix A) for all FASD screens. The project social worker interviews the youth and his or her guardian separately. This process takes approximately 20 minutes. The Project obtains information regarding the youth: educational success and needs, current and past history with the juvenile justice system, placement history, family life, and any alcohol or drug problems within the family. The project social worker asks the guardian about the youth's developmental years, educational needs, placement history, mental health diagnoses within the family, and any previous difficulties with the youth regarding the law, or in the home. In addition, the guardian is asked about alcohol and drug use during pregnancy. If the birth mother states there was use of alcohol or other substances during pregnancy, or the guardian states that the birth mother was using alcohol or drugs during the pregnancy, the youth is then referred for an FASD Diagnostic Evaluation which is conducted at the University of Minnesota FASD Diagnostic Clinic and the Native American Community Clinic. While the youth may screen positive based on any one of the screening criteria, the University of Minnesota requires confirmed prenatal alcohol exposure except in those cases where the

youth has the physical features associated with Fetal Alcohol Syndrome.

Referral and diagnostic process

The University of Minnesota FASD Diagnostic Clinic sets aside six appointments per month for Hennepin County youth. As a result of this partnership, the youth are able to receive a diagnosis within 1 month's time. This is crucial as some youth are pending Juvenile Court hearings and the information in the FASD evaluation report is needed as part of disposition.

Prior to the FASD diagnostic evaluation appointment, the project social worker collects all records regarding the youth's school history, previous mental health, IQ testing, and court reports. The project social worker assists the family with completing the diagnostic process, as many families are overwhelmed or unable to complete the forms, tests and questionnaires without assistance.

Intervention, case planning, and follow-up

If the youth receives an FASD diagnosis and there has not been a disposition in Juvenile Court, the project social worker shares the FASD diagnostic evaluation report with the Court and other parties with guardian permission. By sharing this information with the Court, preadjudication matters can be addressed and disposition planning can meet the specific needs of the youth in question. as well as the public safety needs.

If the youth receives an FASD diagnosis after Juvenile Court disposition and/or adjudication, the Project social worker will share the findings with the Court and other parties, as well as contact the youth's multidisciplinary team to develop an Intervention Case Plan (ICP). The ICP is based on the recommendations from the FASD evaluation report. The multidisciplinary team includes the guardian, community providers, school personnel, probation officer and any interested party who may also be working with the youth. The FASD Project found that working closely with the multidisciplinary team is critical to the youth's success in the community. When work-

ing with all the multidisciplinary team members, the adolescents are more likely to receive consistent treatment at home, school and in the community, thus supporting better outcomes for youth with FASD.

Data

Screening for prenatal alcohol exposure in the Juvenile Justice system commenced in August 2008. From August 2008 through September 2010, 148 adjudicated youth have been screened for prenatal alcohol. Table 2 presents results from the FASD screening project.

TABLE 2

Hennepin County, MN	
Screened for FASD	148
Screened positive for prenatal alcohol exposure	60 (41%)
Completed full FASD diagnostic evaluation	48 (80%)
Received an FASD diagnosis	46 (96%)
Received services and planning based on the recommendations of the FASD diagnostic evaluation	35 (76%)
Clients declined interventions following diagnosis	11 (24%)

Community support and services

There are various community and educational agencies that offer support for our youth diagnosed with FASD. For example, schools are key players in providing educational services. In Minneapolis, the public school system designated a full-time position for a school social worker to specifically assist teachers and advocate for students with FASD. In one of the suburban school districts, western Hennepin County, Intermediate School District (ISD) 287 has a program specifically set up for students with FASD. Working closely with school personnel has been vital to the youth's success within the school setting.

The Minnesota Organization on Fetal Alcohol Syndrome (MOFAS) has been providing training to communities for the past 10 years. MOFAS also provides ongoing parent and professional support regarding those affected with FASD. The Project refers every guardian to MOFAS for ongoing educa-

tion and support regarding their youth with FASD. Additional training on FASD is also available through the FASD Center of Excellence.

The Hennepin County FASD Project works closely with many of these providers. This collaboration has resulted in the development of a provider network that grew out of the Hennepin County FASD Task Force, which is the basis for providing services for adjudicated youth with FASD. The provider network consists of mental health agencies, group home and residential treatment providers, school personnel, probation officers, social workers, advocacy groups and MOFAS. The provider network meets quarterly to discuss ongoing barriers, needs, successes and suggestions for navigating systems for youth with FASD.

System changes

The successful integration of the FASD Project into the juvenile court and children's services was based on policy and procedural changes within court, probation, and the human services and public health systems.

The juvenile court and its officers have the ability to modify youth dispositions based on FASD diagnosis and recommendations. Through disposition, judges and referees can order specific interventions and services for the uninsured and underinsured youth. This is a critical opportunity to order an FASD diagnostic evaluation, appropriate services, or supports to be written into the disposition.

The Juvenile Court is notified when a youth under court jurisdiction is diagnosed with FASD for the purposes of reviewing the case and amending the disposition to better address his/her needs, and to determine if additional court action is necessary.

The FASD Project is housed in the Human Services and Public Health Department (HSPHD). Within HSPHD, one area coordinates and provides services to children and their fami-

lies who have been diagnosed with Severe Emotional Disturbance (SED) in order to improve school performance and attendance, enhance child and family function, decrease violence, reduce out-of-home placement, and increase child and parent satisfaction with services. This has been invaluable to the project to insure ongoing services.

With the system changes discussed, the FASD Project has identified those youth who are at highest risk in the systems. The FASD Project has the ability to provide appropriate service to those delinquent youth who have mental health issues and who could potentially be exposed to childhood trauma in addition to having an FASD.

Conclusion

The FASD Program hopes to improve outcomes and increase success for adjudicated delinquent youth with FASD. Hennepin County recognizes that a critical part of the project is to address the mental health needs of youth in the juvenile justice system. Providing FASD screening to youth who have or are at risk for mental health issues is one way of indentifying youth in need of services targeted to their particular needs. The treatment plans for all program youth diagnosed with FASD are modified to provide the most appropriate services. The project anticipates improved outcomes in these areas: reduced recidivism, increased school success, maintained stability in placements, and improved overall functioning for each youth. The project anticipates that these changes, in turn, will improve public safety.

FASD screening, diagnosis and intervention in a juvenile court residential setting in Lucas County, Ohio[4]

Project Summary

Three organizations in Lucas County, Ohio collaborated on Project Adapt to better meet the needs of youth with Fetal Alcohol Spectrum Disorders (FASD) in the juvenile justice system. Double ARC, a 501(c)3 nonprofit local community organization sponsored by the Sisters of Notre Dame to serve

children with Fetal Alcohol Spectrum Disorders and their families through education, intervention, and advocacy, served as the lead agency for this project. Lucas County Juvenile Court is a nonprofit government agency providing for the best welfare for juveniles in all legal matters. The Youth Treatment Center (YTC) of the Juvenile Court served as the site of the system for study and improvement. Lucas County Children Services is a nonprofit government agency providing child protective services and foster care. They work closely with the YTC staff on common clients.

Target population

The YTC is a secure 44-bed residential facility for felony offenders ages 12-18. YTC uses the strengths of individual, family, and community systems to provide effective residential correction to Juvenile Court-involved youth. The purpose of the YTC program is to shape their behavior so they abide by rules and laws, are successful in school, and show respect to others and their property.

The YTC employs counselors, residential specialists, and contracts with Toledo Public Schools to provide four full time teachers year round. During their time at YTC, youths attend formal classes; participate in individual, group and family counseling; and receive vocational training. Youth learn how to correct the irresponsible thinking patterns that invite criminal choices. They also address substance abuse issues, and develop healthier emotional responses to stress. Family participation is required as it is an essential element of successful treatment. Aftercare counselors work with the youth, family, school, employers, and involved community agencies when youth return.

FASD screening & diagnosis

Double ARC used an adaptation of the screening recommendations provided by the Expert Panel on FASD Screening in the Juvenile Court. Initial screening revealed that a generalized total incidence of FASD estimated for the grant period was 51 or 66% out of 77 youth placed at YTC in the 24 month period and for 42 of those youth who remained resi-

dents at YTC 71% had a positive screen, meaning that collecting further information would be warranted to determine whether these youth should be seen for FASD evaluation /diagnosis.

Based on this data, the identification strategy was devised to accomplish two objectives: (a) add additional indicators to the Expert Panel Screening Tool and (2) provide a second level of screening. To modify the first screen, the process objectives included training contracted YTC medical personnel to complete the physical part of the screen as developed by Burd and colleagues (2004). Double ARC's FAS Clinic Manager processed youth with a positive score on the first screen (Screen I), through the intake procedure for the FAS Diagnostic Clinic, (Screen II). Screen II involves collecting and analyzing medical, psychological, school, and birth records as well as behavioral information for the youth with a positive Screen I. If Screen II is positive and prenatal alcohol exposure confirmed, a referral is made for a diagnostic evaluation.

The clinic intake procedure was completed for 25% of those with an inconclusive result and 10% of those with a negative result in order to detect false negatives. Using Seattle's 4-Digit Code (2004), Double ARC's diagnostic team diagnosed five youth over the period of the project. Three youth received a diagnosis of Static Encephalopathy Alcohol Exposed; one had a diagnosis of Neurobehavioral Disorder Alcohol Exposed; and the fifth youth, having a negative or inconclusive Screen II, did not receive a diagnosis on the fetal alcohol spectrum.

Screening I

Screen 1 includes a two-part form completed by the YTC staff. The first form is the Expert Panel criteria. The second form includes the facial evaluation and a checklist of behavioral characteristics of individuals with FASD based on the research of Burd et al. (2004). This screening tool is located in Appendix C. Characteristics common among the YTC

youth with a positive FASD screen and shared with individuals diagnosed with FASD are as follows:

- Disorganization
- Seems unaware of consequences of actions
- Can't generalize from one situation to another
- Boundary issues: Personal space, ownership, stealing, touch
- Poor social skills
- Behaves younger than chronological age
- Expressive and receptive language processing deficits
- Can't remember from one day to the next (memory issues)
- Concrete/literal thinker
- Requires high levels of supervision and monitoring
- Rigid: resists change
- Poor school performance

Please see Appendix D for more detail of each characteristic with recommendations for intervention.

Intervention

The needs assessment indicated a high correlation between dropout/truancy and a positive FASD screen. The teachers indicated their typical student had been in many schools or dropped out of school. Many of them arrive without primary skills in reading and math. Their wide variations in skills and academic progress make for a challenging teaching environment.

Providing the staff with more information for working with the youth included modifying the intake process to ascertain that updated mental health diagnoses, and results from the Vineland Adaptive Behavior Scale-II indicating developmental age, are included for each youth. This information is provided to the staff for the initial development of the treatment plan along with an indication of the likelihood that the youth has FASD. Strategies developed with this information benefit the youth with FASD. Following completion of the assess-

ment and diagnosis, the assessment information from those processes is incorporated into the treatment plan to further target the needs of the youth with FASD.

Systems change

The process of integrating FASD screening into the YTC program brought about several opportunities for changes that would benefit youth with FASD. Three days of intense staff training in FASD, creating a supportive environment for the target population, and translating written materials, such as the *Resident Handbook* and *Thinking Errors Workbook* (Samenow, 1984) to provide clarity and understanding for the youth were key components to success. Double ARC also developed visual charts for chores and other tasks to help the youth at YTC complete the tasks successfully. These materials along with strategies learned by staff have been integrated into the YTC program as well.

Conclusion

YTC continues to uses the screening tool as part of their assessment information when youth are placed at YTC. They do not use the photographic analysis. They have attempted to send all new employees to Double ARC's FASD workshops sometime within their first 18 months of employment. Because project funding was eliminated before it was completed, diagnosis is not readily available except through referrals to Double ARC.

Future directions for FASD screening, diagnosis and intervention for delinquent youth

The three programs described in this article provide screening, diagnosis and intervention for delinquent youth using variations of the Expert Panel screening tool. Each program has raised the awareness of providers so that the needs of the youth with FASD can be met more appropriately. The goals are to help these youth function better so that they will have lower rates of recidivism and a better chance of becoming productive citizens.

The authors advocate for identification of youth with FASD in juvenile justice systems throughout the country. This will

require screenings that are quick and efficient yet successfully identify youth who can benefit from having the court and providers understand how they function so that they receive services appropriate to their functioning. Given the large numbers of youth identified in these projects, this single factor could have a considerable impact upon the numbers of reoffending youth moving into the adult criminal justice system, versus nonrecidivistic youngsters functioning in society as productive and law-abiding citizens. Given the dearth of evidence-based research for this population, the present authors recommend that more focused research for this at-risk group is imperative.

Notes

1 In January 2005, five juvenile courts were funded to develop projects to screen, diagnose, and intervene with youth who are involved with the courts and have FASD. These projects were funded through subcontracts from Northrop Grumman, Inc. Northrop Grumman was contracted by the Substance Abuse and Mental Health Services Administration (SAMHSA) to organize and support these initiatives and to operate the SAMHSA FASD Center for Excellence.

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4 For more information on this project, please contact Suzette Fisher, S.N.D., Ed.S. at Double ARC/NOFAS Ohio, 3837 Secor Road, Toledo, Ohio 43623 or sfisher@toledosnd.org.

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APPENDIX A

EXPERT PANEL SCREENING FORM AGES 8-18

Screening Form Report (Ages 8-18)

Name:________________ Age: ___ Date of Screening: ____

DOB: ___ Race/Ethnicity: _____ Case Number: _____

Name of Child's Primary Caretaker(s):___ Relationship to Child: ___

Caretakers phone number: _______ Address:__________

Instructions: Check all that apply and provide supporting information.

☐ **Juvenile has a previous diagnosis of an FASD**

Source of information *(parent/child/record)*:___

Date of Diagnosis:___ Diagnostic Clinic: ___

☐ **Juvenile has a sibling who has a diagnosis of an FASD**

(If more than one sibling, provide information on each)

Source of information *(parent/child/record)*:___

Date of Diagnosis:___ Diagnostic Clinic: ___

☐ **Juvenile has Rank 3 or 4 on the FAS Photograph Screen**

Rank: ___ Date of screening: ___

☐ **Prenatal Alcohol or Drug Exposure Confirmed**

- ☐ Medical, birth, or hospital records indicate this juvenile was delivered intoxicated or with a high emergency blood alcohol level.
- ☐ Documentation in a legal record ☐ Mother's self-report
- ☐ Reliable informant

☐ **Referral Decision**

- ☐ Juvenile is not referred ☐ Juvenile referred for a diagnostic evaluation on ___
- ☐ Other community referrals made for juvenile___

APPENDIX B

ADAMS COUNTY PROBATION DEPARTMENT DATE OF ISSUE
POLICIES AND PROCEDURES
JUVENILE SUPERVISION 1/9/06
FASD SCREENING

POLICY:
Probation Officers will complete FASD screening within the first 30 days of case assignment and forward the results of said screen to the FASD Project Director. Should any probation youth be diagnosed with FASD, all efforts will be made to follow the recommendations of the developmental assessment and apply best practices regarding the supervision of these youth. This includes, but is not limited to consultation with the FASD Project staff.

PROCEDURE:

1.) Probation Officers will obtain client and parent/guardian signatures on the FASD Release of Information.

2.) Probation Officers will review the Parent/Caregiver letter regarding the FASD screening process with the youth's parent or guardian.

3.) As part of the initial CYOLSI assessment, Probation Officers will solicit information regarding biological mother's prenatal use of alcohol. Sample questions and methods for gaining this information are included in the FASD Screening Manual.

4.) Following the interview, Probation Officers will complete the FASD checklist and forward this (along with the youth's photograph) to Eileen Bisgard, Project Director (eileen.bisgard @judicial.state.co.us), within five (5) business days. Checklists should be captioned Last Name, First Name, Case Number.doc (ex. Doe, John, 05JD123.doc).

5.) If the checklist indicates a positive screen, the Probation Officer will fax any collateral information (IEP, diagnostic evaluations, PSI, etc.) along with the release of information to Eileen Bisgard, Project Director, at 303-654-3258.

6.) Probation Officers will take two photographs of the youth to be used in the screening for facial features consistent with FASD. This frontal picture may also be used on the field sheet for identification purposes.

a.) A pre-measured sticker will be placed on the center of the youth's forehead, slightly above the eyebrows.

b.) Ensure the youth's eyes are wide open (causing a wrinkled forehead) and the ears are exposed. The youth must not be smiling. The head should not be tilted.

c.) Utilize the "auto" mode. Position the camera directly across from the youth. Zoom in to fill the frame with the youth's face. Take the picture in one snap.

d. Turn the youth's face to a 3/4 view for the second photograph. This will be used to measure the smoothness of the upper lip.

7.) Once the photograph has been taken, Probation Officers will download the photograph to their PC and caption the photo Last Name, First Name, Case Number.jpg (ex. Doe, John, 05JD123.jpg). Remember to add the extension .jpg otherwise you will not be able to edit the photo. Forward the photograph (along with the youth's FASD checklist) to Eileen Bisgard, Project Director (eileen.bisgard@judicial.state.co.us), within five (5) business days.

8.) The Probation Officer will enter a narrative in ICON/Eclipse that states the FASD screening was completed and the checklist/screening was sent.

9.) It is recommended that Probation Officers create a "FASD Documents" folder in My Documents and store all photos and checklists electronically.

10.) If informed by the FASD Intervention Specialist that the FASD screen is positive, Investigation writers will include in the Assessment section of the report the following statement: "A FASD Screen was completed and was positive. A diagnostic evaluation will be forwarded directly to the Court." Likewise, if informed by the FASD Intervention Specialist that the FASD screen is negative, Investigation writers will include in the Assessment section of the report the following statement: "A FASD Screen was completed and was negative."

11.) If FASD screening has not been ordered by the court, the Probation Officer will obtain a Modification of Probation and request that "FASD screening and follow any recommended treatment" be ordered.

APPENDIX C

FASD Screening Form Report (Ages 8–18) Lucas County Juvenile Court

Name:_____________ Age:_____ Date of Screening:_________

DOB:_____________ Race/Ethnicity:_________ Identification Number:_________

Referral Source:____

Name of Child's Primary Caretaker: _______________ Relationship to Child: _____________

Instructions: Check all that apply and provide supporting information.

JUVENILE HAS A PREVIOUS DIAGNOSIS OF AN FASD

Source of Information (parent/child/record): ______________________________________

Date of diagnosis:_____________ Diagnostic clinic:____________

JUVENILE HAS A SIBLING WHO HAS A DIAGNOSIS OF AN FASD

(If more than one sibling, provide information on each)

Source of Information (parent/child/record): ______________________________________

Date of diagnosis:_____________ Diagnostic clinic:____________

JUVENILE HAS RANK 3 OR 4 ON THE FAS PHOTOGRAPH SCREEN

Date of screening: _______________________

Prenatal Alcohol or Drug Exposure Confirmed

☐ Medical, birth, or hospital records indicate this juvenile was delivered intoxicated or with a high emergency blood alcohol level

☐ Documentation in a legal record ☐ Mother's self-report

☐ Reliable informant

Quantity ____

MATERNAL ALCOHOL HISTORY—PROBLEM DRINKING CONFIRMED

☐ Birth mother self-reports her drinking of 7 or more drinks per week or 4 or more drinks at one time in the past month

☐ Juvenile's report of the birth mother's drinking or drinking-related problems

☐ Reliable informant's (e.g., sister, social worker, spouse) report about the mother's drinking or drinking-related problems
☐ Mother has received treatment for alcohol or drug addiction
☐ Mother diagnosed with alcoholism
☐ Mother has had one or more driving while intoxicated violations
☐ Child protective report child's removal of home is alcohol-related
☐ Death of mother from complications of alcohol use (e.g., cirrhosis)
☐ Medical, birth, or hospital records indicate mother delivered a baby intoxicated or show high emergency blood alcohol levels
☐ Has the mother had alcohol- or drug-related job or legal problems?
☐ Has the mother ever sustained an injury or other alcohol-related medical problem when drinking?
☐ Does the mother have any alcohol-related health problems (high blood pressure, cardiac arrhythmia, enlarged liver, liver dysfunction, pancreatitis, depression, suicidal ideation, anxiety, panic attacks, sleeping problems)?

SCHOOL PERFORMANCE HISTORY

☐ Juvenile is failing math ☐ Juvenile has academic deficits
☐ Juvenile has an IEP
☐ Juvenile has significant behavioral problems (indicators include expulsions or suspensions)

REFERRAL DECISION

☐ Juvenile is not referred ☐ Juvenile referred for further screening
__________(Date)
Form completed by:________________ Date: ________________
Telephone number:______________ E-mail:_______________

FASD Screening Form Report (Ages 8-18) Part 2 – Lucas County Juvenile Court

☐ Hyperactive
☐ Hypoactive
☐ Poor attention
☐ Impulsive
☐ Disorganized
☐ Seems unaware of consequences of actions
☐ Poor judgment
☐ Can't generalize from one situation to another
☐ No fear; risk-taker

☐ Difficulty translating information into action.
☐ Boundary issues
☐ Poor social skills
☐ Behaves younger than chronological age
☐ Few, if any, friends
☐ Will talk or interact with anyone
☐ Easily manipulated/set up by others
☐ Difficulty staying on topic during conversation
☐ Language delays
☐ Always talking
☐ Too loud
☐ Can't remember from one day to the next
☐ Below average IQ (< 85)
☐ Poor school performance
☐ Suspended or expelled from school
☐ Literal thinker
☐ Poor sleeper
☐ Can't follow routine—needs reminders to get dressed, brush teeth, etc.
☐ Temper tantrums
☐ Rigid: resists changes, insists his/her position is right, "can't let go"
☐ Extreme mood swings
☐ Requires constant supervision
☐ Inpatient treatment for mental health or substance abuse or in custody for a crime
☐ Youth is a chronic offender
  ☐ Most frequent offense : _______________
☐ Inappropriate sexual behavior
☐ Poor motor skills
☐ Sensory motor integration problems
☐ Has or needs glasses
☐ Fascination with fire; plays with matches, lighters; history of fire-setting behavior
☐ Youth is/was developmentally delayed
☐ Complications of pregnancy/delivery of this youth
Please specify: _______________________________

APPENDIX D

Characteristic	***Description***	***Recommendation***
Disorganized	YTC residents carry a blue folder in which they keep all papers associated with their therapy: Thinking Errors, Responsible Thinking Plan, Hassle Logs, etc.	As noted in interviews with therapists, being concrete, using step-by-step directions, introducing index cards and using color-coded folders for each school subject help residents remember important information and stay organized.
Seems unaware of consequences of actions and cause /effect	Individuals with FASD are usually repeat offenders because they do not understand cause and effect and consequences. In general, they just don't understand that their actions are the cause of an event and changing their behavior would change the outcome. Coupled with this are impulsivity and poor judgment due to damage to their frontal lobes, the area of the brain responsible for executive functioning. The majority of the YTC youth with a positive FASD screen were labeled as "chronic offenders."	Constant supervision is critical to help the youth identify the connection between action and result as well as increase the ability to apply to other situations.
Can't generalize from one situation to another*	Individuals with FASD often have difficulty generalizing from one situation to another. This tends to lead them to repeat the same offense without a clear understanding that it is the same offense if circumstances surrounding it were even slightly different each time. Within the YTC program, rules expected on the Unit may not be followed in other areas, such as outside YTC in the community, because they are clearly not the same to youth with FASD.	Adults need to be supportive in helping youth apply the rules in other situations. Role play in different situations.
No sense of boundaries: Personal space, ownership, stealing, touch*	Youth with FASD frequently do not understand personal space or ownership so they are more likely to be in	Therapy sessions need to address these issues using concrete rather than abstract reasoning.

	trouble with the law for theft, burglary, and sexual imposition. As indicated by the data collected from the records, the most common committing offense for the youth with a positive FASD screen was some form of theft. The second most common was a sexual offense.	
Language: Processing problems—expressive and receptive problems	Much of the process at YTC depends on receptive and expressive language (talk/cognitive therapy), reading and writing and higher level thinking skills. Individuals with FASD often have language and auditory processing problems. Their ability to speak better than they understand masks their incompetent language processing that would make reading and understanding the *Thinking Errors of Juvenile Offenders* and other materials overwhelming and confusing. Unless the staff recognize this with specific questioning to ascertain understanding they could believe that failure to follow the rules is due to willful misconduct rather than lack of comprehension.	Due to language processing problems and difficulty with abstraction, individuals with FASD show limited progress using talk/cognitive therapy. They need more directive, specific, simple therapy using concrete language, role-playing, social stories, and visual metaphors. Art therapy allows the youth to express themselves using something other than words
Behaves younger than chronological age	A lower developmental age than chronological age was evident in both the records review and observation processes. Youth having a positive score on the FASD Screen I were reported to have immature responses to situations such as not getting their way or what they want. Many were reported to have what were described as "temper tantrums" when angry and laughing at the misfortune of others. Immature behaviors were also noted in the observations and interviews. One	Knowing how to interpret and respond differently to meltdowns may lessen the need to call a Code Blue which signals staff that a youth is acting out in a negative aggressive way. Knowing that a 14-year-old functions more like a 5 to 9-year-old would make a difference in the expectations placed on the youth. Therefore, it would be important to understand the developmental

caregiver talked about several instances when the youth displayed an immature response to a given situation. For example, she got up and walked out of a therapy session when the subject focused on her behavior. She continually blamed others for her troubles, and was “quick to fly off the handle and yell, curse at the staff and throw things.”

Individuals with delays associated with FASD often have meltdowns —“a decline or breakdown in a situation or condition”—when they can’t deal with a situation any longer, are confused or frustrated, feel unsafe, don’t know how to respond appropriately to the situation, or are in sensory overload. They either shut down or melt down. Meltdowns usually occur because the individual does not know how to communicate their needs or feelings. Temper tantrums differ from meltdowns in that a tantrum is “a violent, willful outburst of annoyance, rage, etc.: childish fit of bad temper.” Tantrums are used to manipulate and get what is wanted.

Developmental age plays a significant role in how youth understand expectations and in their ability to respond appropriately. The Double ARC’s FAS Diagnostic Medical Summary Report for two YTC youth indicated that both youth showed significant developmental delays on the Vineland Adaptive Behavior Scale-II. Their communication, daily living skills and socialization were in the at-risk or severely below average range. These youth would not be able to meet the expectations of a 14 or 17-year-old respectively.

age of the youth. One Resident Specialist who was interviewed talked about a 15-year old resident who “was immature, playful, showed processing problems, required a great deal of help in school, and behaved more like a 9-year-old.” She remarked that responding to this resident knowing he was developmentally 9 years old helped both of them respond more appropriately to situations.

Requires constant supervision	Observation indicated that most residents did not know how to use free time. Free time is especially challenging for individuals with FASD who tend to wander and get into trouble. According to Ann Streissguth, “When they have time on their hands due to unstructured days, disrupted schooling, poor family supervision, and unhealthy peer groups, and compound their problems with poor judgment with the use of alcohol and other drugs, they are more likely to get into trouble with the law” (Streissguth, 1997).	Those who successfully completed the YTC program showed significant correlation with having hobbies (.05 significance) and family activities (.01significance) prior to adjudication. For those not bringing these experiences to the program, more directed activities building on social skills like turn-taking and appropriate losing and winning responses would be productive.
Literal thinking*	Youth with FASD often do not understand the subtleties, idioms and phrases of language that are not meant to be taken literally.	Idioms and words with several meanings may be confusing to them. This may get them into trouble for appearing like a “smart aleck” when, in fact, they are responding literally to what is said.
Can’t remember from one day to the next (memory issues)	Youth at YTC are expected to memorize the *Thinking Errors* and be able to apply them to their behavior. Because they have difficulty with memory and have “on and off” days, their ability to remember the *Thinking Errors* today, but not know them tomorrow, would be a problem at YTC. On-off days can also impact therapy. The youth may truly not remember details surrounding his or her offense thus may embellish or confabulate as the therapist encourages him or her to say more about a situation.	Simple, concrete methods such as the “SAFE” (Stay Away From Emergencies) method taught to Jeff helped him remember what to do when confronted with a temptation to steal or otherwise act out. This type of intervention has been shown to be effective with individuals with FASD. Likewise, youth with FASD may have difficulty following routine and need visual cues to help them with routine tasks such as doing laundry, cleaning, hygiene, and other chores. Teachers noted in the interviews that their expectations of residents included following their education and therapeutic plans, completing the work

		given, and turning in all home-work even if the resident self-removed from class. Given what is known about individuals with FASD, concrete strategies to help with these organizational issues are needed.
Rigid: Resists change; insists own position is right; 'can't let go'	Individuals with FASD can be very rigid in their thinking. Transitions are very difficult.	Flexibility and support is important at this time. One resident with FASD had clearance to go home for the weekend. After a triage was called regarding two other residents who ran away, it was decided that all weekend passes were cancelled. Residents could write a new request for a week end home visit which would be considered on an individual basis. However, the youth with FASD insisted that he already had an okay and did not have to write a new request.
Poor social skills	Youth with FASD have poor social skills due to functional brain damage resulting in their inability to read social cues and difficulty in understanding how others think and feel. These youth tended to have few friends. The friends they did have tended to be younger than them and some changed friends frequently. Data from observations also yielded evidence of poor social skills among these youth.	Direct teaching to develop social skills is required. Like-wise, because a large part of therapy is to get the youth—victimizer—to understand the feelings of the person offended—the victim—and eventually be able to feel sorry and ask forgiveness. Youth with FASD require additional assistance because of their inadequate social skills.
Poor school performance	Attention impairments, memory impairments, auditory comprehension difficulties, information processing disturb-ances, language delays, especially receptive delays, and other	Many of these students have an Individual Education Plan (IEP) or 504 Plan. Many others, however, who do not qualify for an IEP or 504 still require classroom support from teachers

organically based cognitive impairments make the school experience frustrating at best. The frustration felt by students who are unable to keep pace with their peers often leads to behavior problems. Suspensions, expulsions, and dropouts are common among these individuals due to an inadequate level of support in the school setting (Streissguth 1997) There was a high rate of multiple suspensions and expulsions for this group as well. The dropout rate was statistically significant for this group.

and teacher aides to help them succeed. Youth at YTC who had positive FASD screens shared these difficulties with school. Many were in a special education classroom for behavioral issues and developmental delays.

* Indicates not listed in L. Burd's checklist, The ARNDD behavioral checklist, but is identified as a significant characteristic in the FASD literature and experience of diagnostic clinic.