

The Sequential Intercept Model and Juvenile Justice: Review and Prospectus

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Behavioral health needs in justice-involved adolescents are an increasing concern, as it has been estimated that two-thirds of youths in the juvenile justice system now meet the criteria for one or more psychological disorders. This article describes the application of the Sequential Intercept Model (SIM), developed to describe five “points of interception” from standard prosecution into rehabilitation-oriented alternatives for adults (Munetz & Griffin, 2006), to juvenile justice. The five SIM intercepts are: (1) first contact with law enforcement or emergency services; (2) initial hearings and detention following arrest; (3) jails and courts (including problem-solving courts); (4) re-entry from jails, prisons and forensic hospitals; and (5) community corrections and community support, including probation and parole. Modifying the SIM for application with justice-involved adolescents, this article describes three examples of interventions at different intercepts: Intercept 1 (the Philadelphia Police School Diversion Program), Intercept 3 (problem-solving courts for juveniles), and Intercept 5 (juvenile probation). Relevant research evidence for each example is reviewed, and the further application of this model to juveniles is described. Copyright © 2017 John Wiley & Sons, Ltd.

OVERVIEW

Behavioral health needs in justice-involved adolescents are an increasing concern to the United States legal system and our larger society. It has been estimated that two-thirds of youths in the juvenile justice system meet the criteria for one or more psychological disorders (Grisso, 2004). The presence of some of these disorders may increase the risk of reoffending, while others make it more difficult to develop and function as a responsible, effective adolescent who will become an adult citizen. It is thus important to identify and address the behavioral health needs of justice-involved youth in order to reduce delinquency, prevent future offending, and promote behavioral health.

In the adult criminal justice system, the Sequential Intercept Model (SIM; Munetz & Griffin, 2006) has been used to identify relevant “intercepts,” which are specific points in the criminal justice process at which individuals with mental illnesses could be diverted to alternative treatment or programming that is more appropriate for their needs. This integration of criminal justice and mental health services could be adapted

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for the juvenile justice system, and may be particularly useful for combating the overrepresentation of youths with behavioral health issues in the juvenile system. Although there has been some preliminary discussion of how the SIM could be used to modify the juvenile justice system (Cintrón Hernández, 2015), researchers have predominantly focused on its utility in the adult criminal justice system, and further exploration of its applications to other systems is necessary. This article will provide an overview of the SIM and suggest specific ways in which this model could be applied to juvenile contexts.

As noted, the SIM illustrates points or “intercepts” within the criminal justice system at which individuals with mental illness could be directed to alternative interventions instead of standard legal procedures (Munetz & Griffin, 2006). The underlying philosophy of the SIM is that while people with mental illness should be held accountable for criminal behavior (assuming that their actions are not directly caused by their disorder), they should not be arrested or detained in the criminal justice system simply because of their illness or lack of access to appropriate treatment (Munetz & Griffin, 2006). The SIM particularly highlights opportunities for implementing community-based treatment for justice-involved individuals with mental illness as a means of reducing further penetration into the criminal justice system (Munetz & Griffin, 2006). In addition to being less costly than treatment provided in correctional settings, community-based treatments more appropriately address the needs of individuals with mental health issues (Heilbrun *et al.*, 2012). As community-based alternatives specifically target individuals with mental illness, they can provide more targeted treatment than can the criminal justice system, which handles individuals with a wide variety of needs (Heilbrun *et al.*, 2012). Furthermore, there is a humanitarian value to community-based treatment, particularly for individuals who come into contact with the criminal justice system due to behavior caused by their mental illness (Heilbrun *et al.*, 2012). These individuals are at relatively low risk of reoffending if their behavioral health issues are addressed, and it is therefore in their best interest, as well as the public’s, to provide this group with access to alternative treatments (Heilbrun *et al.*, 2012).

The SIM identifies five intercepts at which justice-involved individuals with mental health needs could be diverted to alternative pathways emphasizing treatment (Munetz & Griffin, 2006):

- *Intercept 1* involves law enforcement and emergency services; it is the initial point of contact between an individual and police officers or other emergency responders. The goal of diversion at this intercept is to reduce further contact with the criminal justice system by implementing alternatives to arrest, such as treatment for individuals who appear to be exhibiting mental health disorders (DeMatteo, LaDuke, Locklair, & Heilbrun, 2013).
- *Intercept 2* occurs following arrest, and involved initial hearings and initial detention. It is the stage after an individual has been arrested, but before they have proceeded to trial or entered a plea (DeMatteo *et al.*, 2013). Interventions at this stage aim to assess individuals’ mental health needs and divert qualified individuals to alternatives to standard prosecution, such as specialized probation programs (Munetz & Griffin, 2006).
- *Intercept 3* occurs after the initial hearing, and involves jails/prisons, courts, forensic evaluations, and commitments. It is the phase after an individual’s initial hearing,

and interventions at this intercept often take the form of alternative judicial procedures, such as problem-solving courts (DeMatteo et al., 2013; Heilbrun, DeMatteo, Strohmaier, & Galloway, 2015).

- *Intercept 4*, involving re-entry from jails, prisons and forensic hospitals, refers to the point at which individuals re-enter society after incarceration or commitment. Rather than focusing on diversion, interventions in this intercept aim to facilitate an individual's transition from an institutional setting using community-based treatment programs (DeMatteo et al., 2013).
- *Intercept 5* includes community corrections and community support, focusing on the post-incarceration community supervision of justice-involved individuals with mental illnesses. The goals of specialized probation and parole programs at this stage are to respond to the needs of this population of justice-involved individuals and to increase their engagement in behavioral health treatment after release from institutional settings (Munetz & Griffin, 2006)

Although the SIM has primarily been applied to the adult criminal justice system, its goals of rehabilitation and community-based intervention for individuals are similar to the aims of the juvenile justice system. The juvenile justice system was initially developed to rehabilitate young people and prevent future criminal activity (Garland, Melton, & Hass, 2012; Mears, 2002; Sickmund & Puzanchera, 2014). In early juvenile courts, judges were given discretion to implement a range of intervention options depending on the specific needs of the justice-involved youth, including warnings, probation, and confinement to treatment institutions (Mears, 2002; Sickmund & Puzanchera, 2014). The juvenile justice system has since introduced more formal procedures and due process protections for system-involved youth (Mears, 2002). In congruence with this more criminalized structure, juvenile court judges have more punitive sentencing options available to them (Sickmund & Puzanchera, 2014). However, the juvenile justice system still allows for more flexibility in sentencing than the adult criminal justice system (Sickmund & Puzanchera, 2014), and dispositions often include alternatives to institutional confinement, such as probation, mental health treatment, and other community-based interventions. As the SIM has multiple intercepts involving community-based interventions, this model may have useful implications for juvenile justice services, particularly for system-involved youth with behavioral health problems.

Of the five intercepts identified in the SIM, three are particularly relevant to the juvenile justice system. Intercept 1, which refers to initial contact between individuals and law enforcement officials, could be conceptualized in a juvenile context as pre-arrest diversion, often occurring in school-based settings. Children and adolescents often first come into contact with the justice system by exhibiting behavior at school that could be viewed as juvenile offending, such as fighting or bringing weapons to school. Instead of addressing these behaviors within the school setting, school administrators have shifted toward "zero tolerance" policies that mandate suspension or expulsion of students who violate school rules, and in some cases require reporting of behavioral incidents to the police (Wilson, 2014). By removing students from school, these harsh disciplinary practices increase the likelihood of negative outcomes such as academic failure, dropping out of school, and involvement with the justice system, a phenomenon known as the "school-to-prison pipeline" (Wilson, 2014). To combat this trend, schools could apply the SIM and divert students into alternative programming,

such as after-school treatment programs or in-school behavior management programs implemented by the school faculty, rather than excluding students from educational settings. These diversion programs should aim to identify and treat the underlying causes of students' behavior, such as mental health issues and family factors. The SIM suggests that providing school-based alternatives to zero tolerance punishments would effectively reduce the number of students who enter the justice system and improve students' long-term outcomes.

Of the multiple post-initial hearing components included within Intercept 3, problem-solving courts seem most applicable to the juvenile justice system. Juvenile courts were initially established to rehabilitate youths through alternative sanctions and treatment (Mears, 2002), which is similar to the goal of modern-day, problem-solving courts in the adult criminal justice system. However, juvenile courts have become more punitive over time (Mears, 2002). Furthermore, while juvenile court judges are still encouraged to consider a youth's individual characteristics and needs when determining appropriate sentences [National Council of Juvenile and Family Court Judges (NCJFCJ), 2005], they are not specifically instructed on how to address these issues. To provide better care for justice-involved juveniles with behavioral health problems, specialized juvenile mental health courts could be utilized (Cintrón Hernández, 2015). Some jurisdictions in the United States have already implemented problem-solving courts for court-involved youth with mental health concerns (Gardner, 2011; Ramirez, Andretta, Barnes, & Woodland, 2015), and sub-specialized courts have even been developed to target specific behavioral health issues, such as substance abuse (Belenko & Dembo, 2003). By applying the SIM through the use of problem-solving courts for mentally ill juveniles, the juvenile justice system may be better able to meet its intended goal of reducing future offending and serving the best interests of system-involved young people.

Intercept 5 is also highly relevant to the juvenile justice system, as juveniles placed in residential facilities post-adjudication often receive probation supervision following release. Cintrón Hernández (2015) suggested that juvenile probation should be "forward-looking" and focused on providing treatment for youths with mental health problems rather than simply punishing them for past behavior (p. 25). Probation programs that require youths and their families to participate in community-based interventions could be particularly efficacious, as family members can provide information and support that is fundamental to the development and implementation of specific treatment goals and strategies (Cintrón Hernández, 2015). By addressing the needs of youth probationers with behavioral health issues and connecting them and their families with appropriate services, probation programs could help to prevent further contact with the justice system. Additionally, implementing a developmentally informed approach to juvenile probation can more effectively encourage youths to fulfill probation requirements, attend required programming, and successfully complete supervision (Goldstein, NeMoyer, Gale-Bentz, Levick, & Feierman, 2016). With this preliminary overview of the SIM's relevance to the treatment of justice-involved youth, we will now describe the ways in which Intercepts 1, 3, and 5 have been applied to the juvenile justice system and the evidence of their effectiveness in these contexts.

The SIM offers an approach to describing where a given program might be situated within the overall criminal justice (or juvenile justice) system. It does not specify the program, nor does it limit interventions to a specific population such as those with

severe mental illness, substance abuse, intellectual disability, or other behavioral health challenges. But it is quite feasible to use the SIM when designing programs that would treat youths with various kinds of behavioral health challenges; the SIM would simply guide the program development in terms of its most effective placement within the overall juvenile justice system.

INTERCEPT 1: PHILADELPHIA POLICE SCHOOL DIVERSION PROGRAM

Contact with law enforcement represents the front end of the justice system and the initial point of entry for youths into the system. This first contact also represents a valuable opportunity for youths to avoid formal penetration into the juvenile justice system and to obtain referrals for behavioral health and other supportive services to address pressing needs. Pre-arrest diversion programs move offending youths away from traditional juvenile justice procedures, such as arrest and referral to juvenile court, and toward more appropriate services, such as treatment programs to address underlying causes of offending behaviors. As a result, youths are spared the immediate trauma of arrest and the potential long-term collateral consequences (e.g., reduced educational and employment opportunities, loss of public housing, military service ineligibility) of juvenile justice system involvement. Additionally, many diversion programs provide needs-based screenings and assessments – including screenings and assessments for mental and behavioral health issues – and provide treatment or referrals to address identified needs (International Association of Chiefs of Police, 2014; Sullivan, Dollard, Sellers, & Mayo, 2010; Teske, 2011; Walby, 2008).

Some of the most successful juvenile, pre-arrest diversion programs focus on school-based offending in an attempt to prevent entry into the school-to-prison pipeline (International Association of Chiefs of Police, 2014; Sullivan et al., 2010; Teske, 2011). In recent decades, schools have ascribed to zero-tolerance policies for behavioral infractions, causing a sharp rise in suspension, expulsion, and school-based arrest rates (APA Zero-tolerance Task Force, 2008; Skiba & Knesting, 2001; Skiba & Peterson, 1999). In fact, since the institution of zero-tolerance policies, schools have referred more youths for arrest than has any other entity (Krezmien, Leone, Zablocki, & Wells, 2010). Many schools employ school police officers or school resource officers (U.S. Department of Education, National Center for Education Statistics, 2013), increasing students' exposure to law enforcement and, consequently, providing more occasions for arrest and justice system involvement (De Li, 1999; Lintott, 2004). Pre-arrest, school-based diversion programs were designed to counteract the net widening effects of zero-tolerance policies and practices and to establish restorative justice alternatives to justice system involvement.

The Philadelphia Police School Diversion Program provides an example of a successful Sequential Intercept 1 pre-arrest, school-based diversion program. The Philadelphia Police School Diversion Program was introduced in all city schools in May 2014 in an attempt to reduce the number of school-based arrests and provide supportive services to youths who would otherwise become justice-involved. Prior to the implementation of the Police School Diversion Program, approximately 1,600 youths were arrested in Philadelphia schools annually. Although many of these were

afforded diversion opportunities at other intercept points within the juvenile justice process, such as at post-arrest through participation in youth aid panels or probation, these youths were still subject to the traumatic experience of arrest; they were handcuffed and removed from school, transported to police headquarters, and kept in a holding cell for up to 6 hours. They also experienced the potential negative consequences of juvenile justice involvement, including increased risk of school expulsion/disciplinary transfer and dropout (Skiba & Peterson, 1999).

The Police School Diversion Program is a cross-system collaboration among the Philadelphia Police Department (PPD), School District of Philadelphia (SDP), and Philadelphia Department of Human Services (DHS) and was designed to spare eligible students the traumatic experience of arrest and the short- and long-term negative consequences of justice system involvement. Under the memorandum of understanding among the PPD, SDP, DHS, Family Division of the Court of Common Pleas, and other juvenile justice stakeholders, police officers in Philadelphia are prohibited from arresting youths for specific summary and misdemeanor delinquent offenses (e.g., marijuana possession, weapon on school property other than firearm, disorderly conduct) committed on or about school property. If a student commits one of these designated offenses and is at least 10 years old (the minimum age for arrest in Pennsylvania), the responding PPD officer calls the Police School Diversion Program Intake Center to learn whether the student has a history of justice system involvement. Provided the youth has no previous delinquency finding, does not currently have an open case, and is not currently under probation supervision, he or she is eligible for the Diversion Program and is immediately enrolled.

The diverted student is provided with a letter to take home to the parent(s)/guardian(s); the letter provides information about the Philadelphia Police School Diversion Program, notification of the child's enrollment in the program, and notice that the parent/guardian and child will be visited at home, by a DHS social worker, within 72 hours of the incident to discuss service options. The student is not arrested and may remain in school, subject to the school administrator's discretionary decision regarding suspension and/or petition to the district for expulsion/disciplinary transfer to another school. Because program participation does not result in arrest, the youth maintains a history free of justice system involvement. If the student is ineligible for the Diversion Program because of offense type or juvenile justice history, the youth is placed under arrest and subject to regular juvenile justice system processing.

At the home visit, the DHS social worker conducts an initial screening of the youth and family to evaluate service needs and, importantly, asks the youth and family about services they wish to obtain. The youth and family are assessed for supportive service (e.g., housing assistance, academic support), mental health service (e.g., individual treatment, family therapy), and other treatment (e.g., substance use treatment, anger management) needs. Participation in Diversion Program services is completely voluntary, but strongly encouraged, for both the youth and family; if a family and/or youth declines to participate, a Diversion Liaison Police Officer visits the home to discuss the benefits of accepting services and to confirm awareness of the one-time opportunity to participate in diversion programming. Both this visit and the initial contact with the school police officer during the diversion enrollment process offer valuable opportunities for positive interactions between the youth and law enforcement officer(s). These interactions involve restorative and supportive practices that emphasize recognition of and responsiveness to the issues and challenges underlying the student's misbehavior.

If the student and family accept services as part of the program, the youth is assigned to an Intensive Prevention Service (IPS) provider within the DHS network. The IPS provider conducts a more extensive intake assessment of the youth and family and identifies specific service activities to address the identified needs. There are six community-based IPS providers throughout Philadelphia, providing youths, siblings, and/or parents/guardians with academic support, mentoring, social and emotional competency development, work-ready programming, recreation, community service and engagement, and parental involvement opportunities. IPS providers also work with families to address issues related to adolescent delinquent behavior, including truancy, academic performance, family relationships, and communication. If the DHS social worker or IPS provider identifies additional needs that cannot be met by the IPS program (e.g., drug/alcohol dependence, serious mental health issues, housing assistance), the youth and family are referred to and connected with other agencies for specialized services. Through the Diversion Program, youths are assigned to an IPS provider for 90 days, and participation can be extended up to 180 days as needed.

The Philadelphia Police School Diversion Program has demonstrated great success in the first 2 years of operation. To date, more than 1,000 youths in Philadelphia have been diverted, spared the experience of arrest, and connected with service providers. In the first full school year (2014–2015) of the program's operation, the number of school-based arrests dropped 54% city-wide. Approximately 90% of diverted youths and families accepted the voluntary, DHS-sponsored IPS services through the program, and most of those families that declined services did so because they were already receiving services elsewhere. Perhaps most noteworthy, as of December 2015, 1.5 years into the program's operation, only 36 (4.5%) of the nearly 800 youths diverted had been arrested for committing an offense in school or in the community following diversion – a rate far lower than that of youths arrested and released from detention or placement (Austin, Johnson, & Weitzer, 2005).

The program also provides front-line staff (i.e., PPD school police officers, SDP school safety officers, school administrators) with training in de-escalation techniques, such as conflict management and mediation, to help resolve situations that might otherwise lead to arrest. Additionally, school police officers completed trainings on adolescent development, mental health first aid, Individualized Education Programs (IEPs), and trauma-responsive policing. These trainings promote law enforcement officers' awareness of ways in which mental and behavioral health needs, as well as other youths, family, and systemic challenges, may cause or contribute to students' misbehavior. Although officers are not expected to diagnose or treat youths, these trainings sensitize them to providing trauma-informed care in schools and encourage them to ask *why* behaviors occur – not just *whether* they occur. These questions and framing lay the foundation for social workers and treatment providers to conduct screenings and assessments and to provide targeted treatment.

Currently, Philadelphia's pre-arrest Diversion Program is slated to expand into the community to divert, from arrest to services, those youths with no delinquency history who are accused of retail theft. The program is also tracking the long-term progress of diverted youths to determine the impact of program participation on justice-related outcomes (e.g., police contacts, future arrest, recidivism), school outcomes (e.g., academic achievement, graduation, behavioral incidents, disciplinary actions), and health and well-being outcomes (e.g., mental health, DHS involvement, employment). As part of this evaluation, outcomes of diverted youths are compared with those of a

quasi-control group – youths arrested for similar offenses on school property the year prior to the implementation of the Philadelphia Police School Diversion Program.

Intercept 1 of the SIM provides a critical opportunity to prevent youths who do not present dangers to their communities from entering the juvenile justice system and, instead, to divert them to community-based services. Many juveniles who are diverted never return to the justice system, likely aging out of their adolescent misbehavior (Moffitt, 1993; Reyes, 2006). Moreover, the likelihood of returning further decreases if underlying causes of misbehavior have been addressed through treatment and supportive services (Heilbrun *et al.*, 2016). Intercept 1 also provides an early opportunity to screen youths for behavioral and mental health needs before official involvement in the justice system and to prevent the trauma, stigma, and negative consequences of justice system involvement, including exacerbation of existing mental health issues. Despite these benefits and the potential to substantially limit the number of juveniles that formally penetrate the justice system, few jurisdictions have invested in successful pre-arrest diversion programs (Sullivan *et al.*, 2010; Teske, 2011). The Philadelphia Police School Diversion Program offers one Intercept 1 model with objective, replicable criteria and procedures, as well as successful outcomes.

INTERCEPT 3: PROBLEM-SOLVING COURTS

Given the overrepresentation of mental illness in the juvenile justice system, innovative approaches are necessary to intervene and treat underlying issues that can increase the likelihood of future criminal behavior. As a result of juvenile courts' shift away from a rehabilitation philosophy, a gap exists for youths with behavioral health concerns and justice involvement (Fagan & Zimring, 2000; Grisso & Schwartz, 2000). Intercept 3 is a crucial point of intervention for these youths; courts that can appropriately assess for and treat mental health issues can have a significant impact in preventing future criminal behavior and better serve these youths. Additionally, while the diversionary programs at earlier intercepts (described earlier) can be effective in preventing youth from juvenile justice involvement, it is imperative that methods be developed to better handle youth already entrenched within the system.

Intercept 3 involves intervening in jail or in court for individuals with mental illness and other behavioral health needs. Court intervention, specifically problem-solving courts, have been identified as a possible and easily adaptable strategy into the juvenile justice system (Cintrón Hernández, 2015). Juvenile mental health courts (JMHCs) divert youths with mental illness away from the juvenile justice system and into community mental health treatment when safe and appropriate (Skowrya & Powell, 2006). Juvenile problem-solving courts allow for aggressive and early intervention, while also incorporating individualized and comprehensive treatment plans.

The first JMHC opened in 1998 in York County, PA (Callahan, Coccozza, Steadman & Tillman, 2012), and there are approximately 40 operational juvenile mental health courts currently in operation. JMHCs were developed on the foundational principle that youths should not become involved in the juvenile justice system based solely on mental illness or lack of access to mental health services. JMHCs also uphold the belief that youths should be diverted to appropriate community treatments whenever possible if mental health symptoms are present and they does not present a risk to public safety (Gardner, 2011). JMHCs use a separate docket, a multidisciplinary team approach,

and frequent judicial supervision to best respond to youths with mental illness (Council of State Governments, 2005). Similar to adult mental health courts, nuances exist between jurisdictions that impact specific policies and procedures of each court, but all involve intensive case management and embrace the idea that treatment as opposed to punishment is most effective in helping youths avoid future contact with the criminal justice system (Gardner, 2011).

Juvenile mental health courts have two primary objectives – to address mental health needs with wraparound services, family involvement, and appropriate evidence-based treatment (Cocozza & Shufelt, 2006), and to reduce recidivism (Levin, 2012) – and they work in close collaboration with community mental health agencies and law enforcement to meet these goals (Levin, 2012). JMHCs are also committed to seeking the least restrictive setting for treatment, with a focus on providing services that are age- and culture-appropriate (Gardner, 2011). Although these objectives overlap at their core with adult mental health courts, JMHCs' unique focus on engaging youths' family and ensuring wraparound services can help direct youth toward a successful future.

Juvenile mental health courts provide numerous benefits to youths, families, and communities. Unlike other commonly utilized punishments for justice-involved youths (e.g., probation or community service), JMHCs refer families to services, with court supervision used as leverage to promote compliance (Cocozza & Shufelt, 2006). This model not only treats a correlate of criminal behavior, but it can provide youths with services to which they may not otherwise have access, which can contribute to better long-term outcomes. The added focus on youths as well as their home environment and families can have a lasting impact. Additionally, some JMHCs afford youths the opportunity to have their charges dismissed or reduced. This is particularly important for youths, because a record of conviction or adjudication can limit opportunities for employment and education, thereby creating financial barriers (Callahan et al., 2012).

A national survey of JMHCs conducted by Callahan et al. (2012) provided descriptive data for existing courts. The common age range for JMHCs is 13–17 years, and over half of the courts consider youths with violent offenses, although many exclude those charged with sex offenses (Callahan et al., 2012). The most frequent mental health diagnoses reported are bipolar disorder, a depressive disorder, and attention deficit/hyperactivity disorder (ADHD; Callahan et al., 2012). The report also stated that youths in most JMHCs remain supervised by the court for a period of 6–9 months. This survey also revealed that while it seems as though JMHCs are being quickly established, the spread of their development is disproportionate among states, and many states still have not yet established specialty courts to handle youths with mental illness.

Juvenile mental health courts are relatively new, and research supporting their utility is limited. Existing studies use different definitions of recidivism (rearrest, reconviction, or probation violations), which makes it challenging to evaluate outcomes across studies (Behnken et al., 2009; Makany-Rivera, 2011; National Center for Youth Law, 2011). Further outcome research is needed to bolster support for JMHCs and to increase what could be an important development in improving the juvenile justice system.

In addition to JMHCs, juvenile drug courts have been emerging as an effective strategy to intervene with youths with substance use problems. Research suggests that juvenile drug courts are effective in reducing recidivism (Belenko & Dembo, 2003). A recent multi-side study found that juvenile drug courts are effective in identifying

and providing services to youths in need, reduce criminal behavior more than other interventions often used with court-involved youth (e.g., intensive outpatient treatment), reduce substance use more than other interventions, and produce significant cost savings (University of Arizona - Southwest Institute for Research on Women, 2015). Programs that implement evidence-based practices (e.g., multisystemic therapy) have particularly promising outcomes, and addressing parental supervision and peer influence can significantly increase positive outcomes (Henggeler *et al.*, 2006). It is likely that similar mechanisms will prove as effective for JMHCs.

Overall, juvenile problem-solving courts are an emerging, under-researched, and promising strategy for intervening with justice-involved youth. The services and monitoring of problem-solving courts are widely used in the adult criminal justice system and can have similar effects for youths in the juvenile justice system. Adapting the adult problem-solving court model to include more frequent monitoring, wraparound services, and a focus on family and peer relationships has shown preliminary success and should continue to be explored in order to help justice-involved youth succeed.

INTERCEPT 5: JUVENILE PROBATION

Placement on juvenile probation enables youths to remain in their communities while under formal supervision, providing opportunities to take part in community-based programming, such as individual and family counseling, anger management, and substance use treatment to address young people's behavioral health needs and to promote competency development. Compliance with probation requirements (e.g., attending required behavioral health programming, remaining substance-free) is mandated; failure to adhere to these requirements can result in sanctions, including probation revocation and placement in secure facilities (NeMoyer *et al.*, 2014; Schwalbe & Maschi, 2011; Sickmund, 2003). Given the negative effects of incarceration on youths' long-term outcomes (e.g., mental health, academic, employment) (Mendel, 2011), efforts to keep justice-involved youth in the community are critical to promoting young people's long-term positive development and well-being. In this vein, many ongoing juvenile justice system reform efforts at national, state, and local levels involve implementing a developmentally responsive framework for putting youths under community supervision. This approach, often described in juvenile probation contexts as "graduated response," is designed to address youths' positive and negative probation-related behaviors in a series of logically linked, progressive responses that are based upon the principles of operant conditioning (Goldstein *et al.*, 2016). This structured response system promotes system equitability across youth, as responses to compliant and non-compliant behaviors are delivered in targeted, predictable, and proportionate ways that are driven by research on adolescent brain development and adolescents' decision-making capacities. Consistent with Intercept 5's emphasis on providing community-based programming to prevent additional system contact, graduated response approaches to juvenile probation provide services to young people in the community, encouraging their positive development so they successfully complete probation and avoid further justice system involvement.

The Supreme Court of the United States recognized the unique characteristics of adolescents in multiple cases (e.g., *Graham v. Florida*, 2010; *J.D.B. v. North Carolina*, 2011; *Miller v. Alabama*, 2012; *Roper v. Simmons*, 2005), and for more than a decade, researchers, scholars, and policy advocates have focused on the importance of adolescent development in criminal culpability (Steinberg & Scott, 2003) and *Miranda* waiver and confession (Goldstein et al., 2003; Viljoen, Klaver, & Roesch, 2005) contexts. However, little attention has been paid to the impact of adolescent development on young people's abilities to successfully fulfill conditions of probation (Goldstein et al., 2016), something that is critically important given that over 60% of all youths receive probation as their most serious disposition (Hockenberry & Puzanchera, 2014).

Developmental changes occurring in the brain during adolescence may help to explain many of the non-compliant behaviors commonly exhibited by young people under court supervision; understanding the role the adolescent brain development plays in youths' decision-making and socio-emotional abilities provides an opportunity to create more developmentally sensitive juvenile probation systems (Goldstein et al., 2016), which can help young people to remain in the community and avoid probation revocation and placement. During adolescence, the prefrontal cortex, or the area of the brain responsible for executive functioning skills, is still developing (Steinberg, 2009). Adolescents' cognitive skills, including response inhibition, planning, reasoning, and decision-making, reflect immature development relative to those of adults (Halpern-Felsher & Cauffman, 2001; Steinberg, 2008, 2009). For young people on probation, these skill deficits may be of particular significance, as youths are expected to comply with multiple requirements over a significant period of time, often with competing demands (Goldstein et al., 2016). Further, mental and behavioral health problems, which are common among justice-involved youth (Shufelt & Coccozza, 2006), can exacerbate the developmentally based, decision-making challenges of adolescence. Probation systems that recognize adolescents' developmental limitations and establish expectations accordingly can facilitate youths' successful completion of probation – helping these youths remain in their communities and avoid further involvement in the justice system.

The brain regions that compromise the limbic system, the system responsible for socio-emotional functioning, experience heightened activation during adolescence. In contrast, the cognitive control system is less developed during adolescence, making emotionally driven responses (rather than cognitively based decisions) common, particularly during emotionally charged situations (Casey, Jones, & Hare, 2008; Hare et al., 2008). Increased sensitivity of the dopaminergic system increases youths' receptiveness to rewards and positive reinforcement (Schott et al., 2008; Steinberg, 2008); this heightened sensitivity, coupled with adolescents' susceptibility to peer influence, contributes to the engagement in risky, sensation-seeking behaviors that is characteristic of this developmental period (Chein et al., 2011; Gardner & Steinberg, 2005; Steinberg, 2009). These findings have implications for probation-involved youth, as engagement in normative adolescent behavior may have serious consequences, including probation revocation and secure confinement. Juvenile probation systems must, therefore, incorporate opportunities for young people to receive positive reinforcement for engagement in positive behaviors with pro-social peers that fulfill probation requirements.

Adolescents also demonstrate psychosocial immaturity. Relative to adults, youths exhibit deficits in impulse control, delaying gratification, and considering long-term outcomes of their behaviors (Steinberg, 2009; Steinberg et al., 2009), all skills required of court-supervised youth. It is critical, then, to consider limitations of adolescents' executive functioning capacities, heightened sensitivity to positive reinforcement, and immature decision-making processes within a supervision context. To that end, graduated response systems are designed to provide young people with opportunities to achieve frequent success throughout the probation process by providing specific and measurable behavioral expectations, incentivizing progress toward full compliance with probation requirements, and providing multiple opportunities for youths to learn from their non-compliant behaviors so that they are able to make different choices in the future.

In addition to employing a developmentally responsive approach, use of empirically supported behavior change principles is integral to graduated response in juvenile probation (Goldstein et al., 2016). These behavioral shaping techniques are largely based on the principles of operant conditioning, which hold that positively reinforcing desired behaviors increases the likelihood that these behaviors will be performed again, and negatively reinforcing unwanted behaviors decreases the likelihood that these behaviors will occur again in the future (Skinner, 1965). Supported by research, these principles of behavior change are effective in shaping youths' and adults' behaviors across many contexts and populations, including in educational settings (e.g., Piffner & O'Leary, 1987; Simonsen, Fairbanks, Briesch, Myers & Sugai, 2008), youths with behavioral needs (e.g., Kazdin, 2005; Power, Karustis, & Habboushe, 2001), adolescent smoking cessation programs (Krishnan-Sarin et al., 2006), adolescent substance use treatment programming (Lott & Jencius, 2009; Stanger, Budney, Kamon, & Thostensen, 2009), adult drug courts (Marlowe & Kirby, 1999), and adult probation programs (Wodahl, Garland, Culhane, & McCarty, 2011). In juvenile probation contexts, incentives (e.g., extended curfew, participation in a desired activity) are delivered for the performance of positive, probation-compliant behaviors and achievement of probation-related goals while sanctions (e.g., verbal warning, increased frequency of drug screens) are delivered for the performance of behaviors that fail to comply with probation requirements.

Research findings across youth and adult populations (e.g., Piffner & O'Leary, 1987; Wodahl et al., 2011) suggest that providing a combination of incentives and sanctions can effectively change behavior, and scholars suggest a rate of at least four incentives to every sanction to optimize behavior change in both youth and adult populations (Gendreau, 1996; Power et al., 2001). Positive reinforcement provides the opportunity for new, adaptive behaviors to be learned and maintained over time while sanctions suppress negative behavior in the short term (Kazdin, 2005; Larzelere & Kuhn, 2005). As juvenile probation systems have long focused on identifying and sanctioning non-compliant behaviors (Altschuler, 2005), the emphasis placed on the importance of recognizing positive, compliant behaviors within the graduated response approach marks a paradigm shift in how juvenile probation systems operate.

In addition to the importance of providing a greater ratio of incentives to sanctions, research suggests that responses delivered in timely (Abramowitz & O'Leary, 1990) and consistent (Acker & O'Leary, 1988) ways promote positive behavior change. Responses to behaviors should be immediate so that youths are able to connect the delivery of the specific response to the performance of a specific behavior. Receiving

positive feedback today for attending an individual therapy session 3 weeks ago is typically less meaningful to a young person than is receiving positive feedback at the time of the appointment. Consistent and predictable responses also facilitate learning; expectations are established in advance and young people are aware of the consequences they will face for their compliant and non-compliant behaviors (see Simonsen et al., 2008, for a discussion of setting rules and expectations in classroom settings). Awareness of responses prior to their occurrence can increase young people's sense of control over their outcomes, which can promote accountability throughout their time under community supervision. Responses should also be logically linked to behaviors; this requires probation officers to understand why non-compliant behaviors are occurring before responding. For example, there may be one or more reasons a young person is disruptive in math class. Does this person have behavioral health issues that have not been addressed? Does he or she have a learning disorder? Are they seeking attention by showing off in front of friends? Each underlying reason for the behavior should be addressed with a different intervention – e.g., treatment for ADHD, assignment to a math tutor, or establishing opportunities for positive attention for positive behaviors. Recognizing that similar behaviors can stem from different causes – and subsequently connecting youths with needed behavioral health and supportive services – is a critical component of graduated response systems.

Finally, responses to behaviors should be proportionate; increasing the severity of a response does not promote greater learning and can sometimes lead to negative outcomes (Gershoff, 2002; Kazdin, 2005; Larzelere & Kuhn, 2005). Responses that are disproportionate to the behaviors can contribute to young people's perceptions of the lack of control over their outcomes and overall system inequity. Indeed, some research suggests that perceptions of system fairness – or procedural justice – are associated with greater self-reported compliance with the law over a period of several months (e.g., Penner, Viljoen, Douglas, & Roesch, 2014), underscoring the importance of providing fair, appropriate, and proportionate responses to young people's behavior.

In sum, the graduated response approach to juvenile probation is consistent with Intercept 5 of the SIM in that the goal of graduated response is to promote young people's successful completion of probation to prevent further involvement in the juvenile justice system. Implementing a supervision system that is developmentally informed and grounded in empirically based behavior change techniques will help to identify youths' individual needs, provide appropriate responses to behaviors, and promote competency development so that young people can minimize their time in the system and maximize involvement in their community-based lives.

DISCUSSION

The theme of this special issue involves “what's right” with mental health and juvenile justice in the United States. Our approach in the present article uses the Sequential Intercept Model (Munetz & Griffin, 2006) in a way in which it has been seldom employed to date: to illustrate three different stages of the juvenile justice system at which mental health and other rehabilitative services are currently being delivered in a demonstrably effective or at least very promising fashion.

In weighing our progress in rehabilitating justice-involved adolescents, it is useful to describe how various youth services are associated with the juvenile justice system. In this article, we have discussed services that are delivered at three different intercepts: school-based diversion (Intercept 1), juvenile problem-solving court (Intercept 3), and specialized probation processes (Intercept 5). All of these represent an approach to juvenile justice that goes beyond more traditional community-based or residential treatments following adjudication of delinquency.

Each of the examples in this article reflects what is “good” about mental health and juvenile justice, in part because they have combined the influences of developmental psychology, behavioral health, and criminology. Services in each of these examples are developmentally informed, have a substantial mental health component, and are guided by empirical research addressing the goal of reducing the risk of future misconduct. The Philadelphia Police School Diversion Program prevents arrest for low-level offenses, promotes school retention, avoids unnecessary trauma, and involves proportionate responses – all of which have been associated with lowering the risk of future offending, as well as improving adjustment in the school environment (Cornell & Heilbrun, 2016; Daly et al., 2016). Problem-solving court for juveniles capitalizes on the encouraging findings that such courts are effective in delivering specialized services to justice-involved adults that both address specialized treatment needs and reduce criminal recidivism risk (Heilbrun et al., 2012). Use of a developmentally informed probation approach to juveniles’ supervision can be more effective because it incorporates the use of incentives for positive behavior with sanctions for misbehavior – and there is evidence that providing fair, appropriate, and proportionate responses to youth misconduct is indeed useful in deterring further misconduct for a period of time (Penner et al., 2014).

These are three examples of interventions for adolescents that reflect what is good in contemporary juvenile justice and mental health. They are not the only examples that could be provided, but they underscore an important larger point. Much of what is “good,” in these and other interventions for juveniles, results from becoming better informed about human development, more cognizant of the impacts of trauma and adversity, and more inclined to consider treatment targets where improvement yields both improved behavioral health and reduced risk of future misconduct. It is this kind of progress that will promote healthier and more responsible adjustment in adolescence, to the benefit of both our youth and our larger society.

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