

Characteristics of and Services Provided to Youth in Secure Care Facilities

Joseph C. Gagnon and Brian Barber
University of Florida

ABSTRACT: Youth who are incarcerated in secure detention and commitment settings display a complex array of educational, behavioral, and mental health issues that affect the services they require, as well as their responsiveness to interventions. Yet, seldom are these needs understood or taken into account when providing services in secure care settings. In this article, research documenting what is known regarding the characteristics of incarcerated youth is summarized. Current research on the use of evidence-based interventions and services for youth in secure settings is reviewed next. Finally, the limitations of existing research and practice and the use of response to intervention (RtI) for linking youth characteristics to research-based strategies are discussed.

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Adolescents in secure care settings have perhaps the most complex educational, behavioral, and mental health needs of any youth in our society (Gagnon & Richards, 2008). Only recently have the numerous and interrelated difficulties experienced by adjudicated youth begun to be understood. Educational disabilities, inappropriate behaviors in school and the community, mental health problems and/or substance abuse, and experience with abuse, neglect, and violence are frequent characteristics of troubled youth who serve time in secure care facilities. Due to the seriousness of these characteristics, these youth require comprehensive services and research-based interventions. Direct service providers in secure care are challenged to provide empirically validated approaches while taking into consideration the unique and complicated characteristics of youth. Simultaneously, service providers must work within a juvenile justice system that is largely driven by security concerns, often at the expense of other needed supports and services (e.g., adequate school funding and staffing, proactive and positive approaches to youth behavior, screening and treatment of youth with mental disorders; see Leone & Cutting, 2004; National Mental Health Association, 2004; Nelson, Sugai, & Smith, 2005).

In order to achieve a broad understanding of the appropriateness of services provided to

youth in secure care, it is necessary to understand their characteristics, which span several dimensions (i.e., academic, behavioral, mental health). The extent to which interventions in secure care address these characteristics and needs can be determined through an examination of available research. A review of limitations to current research and practice then provides a basis for considering one approach, response to intervention (RtI), for selecting and implementing interventions that consider the unique student characteristics of incarcerated youth.

Characteristics of Youth in Secure Care

The academic characteristics of all youth in secure care provide a context for an analysis of these characteristics among the youth commonly overrepresented in juvenile corrections, namely those with emotional/behavioral disorders (E/BD) and learning disabilities (LD). Regarding student behavior, we summarize available research on the disability classification of E/BD in secure care. Last, we delve into key mental health characteristics of these youth, including information available on the rates of mental disorders, drug abuse, and histories of abuse and neglect.

Academics

Studies focusing on the academic achievement of youth with disabilities in juvenile corrections are relatively limited. However, it is clear that academic difficulties are a significant factor affecting the educational

and postschool success of incarcerated youth. In a review of literature, Foley (2001) reported that academic functioning of students in juvenile corrections typically was between the fifth- to ninth-grade levels. Foley (2001) further noted that a high percentage of youth who were incarcerated had failed a course, been retained in grade, and had earned no high school course credit at the time of incarceration. A study of 186 incarcerated youth by Baltodano, Harris, and Rutherford (2005) similarly indicated that youth in juvenile corrections were below the mean on standardized measures of achievement. Moreover, incarcerated youth are less likely to graduate—in one study analyzing the National Longitudinal Survey of Youth, incarcerated youth were 26% less likely to graduate from high school than nonincarcerated youth (Hjalmarsson, 2008). Mathematics and reading are two critical areas affecting the academic and post-school success of youth, including those in secure care (Gagnon, Wehby, Strong, & Falk, 2006). Compared with their non-delinquent counterparts, higher percentages of delinquent youth have difficulties in reading and mathematics (Allen-DeBoer, Malmgren, & Glass, 2006; Meltzer, Levine, Karniski, Palfrey & Clarke, 1984). By middle school, approximately 50% of delinquent youth are below average in all academic areas (Meltzer et al.).

Several studies of incarcerated youth have substantiated the serious academic problems of youth in secure care. For example, in a study of 583 incarcerated youth, Beebe and Mueller (1993) reported that youth have difficulties, "conceptualizing and processing information, with basic reading skills, and with mathematical computation" (p. 195). In a study of 555 detained and committed youth, Krezmien, Mulcahy, and Leone (2008) reported that achievement scores on standardized assessments in reading and mathematics were about four years behind that of same-aged, nonincarcerated peers. Similarly, Zamora (2005) conducted research on 317 male juvenile detainees in Texas, and reported that only 25% of the study sample had educational achievement test scores at the middle or high school levels in reading and mathematics. Academic achievement also has a bearing on recidivism, as evidenced by the studies of Archwamety and Katsiyannis (1999, 2000) who found that delinquent youth in remedial reading or mathematics groups were twice as likely to recidivate as youth in a control group.

Other researchers have focused on the reading achievement of youth in secure care and reported similar results. For example, in a study of 398 incarcerated youth, Harris, Baltodano, Bal, Jolivet, and Mulcahy (2009) noted that incarcerated youth scored below nonincarcerated youth on reading achievement assessments. In another study of 91 juvenile offenders ages 15–17 in England, reported reading skills were, on average, one standard deviation below expected age levels on standardized achievement assessments (Snowling, Adams, Bowyer-Crane, & Tobin, 2000). Brunner (1993) found that incarcerated youth functioned at a fourth-grade reading level, and Coulter (2004) noted youth comprehension was at a fifth-grade level.

Given the high percentage of incarcerated youth having an educational disability, a specific understanding of the academic difficulties of youth with E/BD and LD is particularly relevant. In a national survey of principals of juvenile corrections facilities for committed youth, Gagnon, Barber, Van Loan, and Leone (2009) reported that about 40% of these youth were classified with a disability. Similarly, in a national survey of heads of state departments of juvenile corrections and combined juvenile/adult corrections systems, 33% of incarcerated youth were classified with a disability (Quinn, Rutherford, Leone, Osher, & Poirier, 2005). In contrast, 12% of students in regular public schools have identified disabilities (Stizek, Pittsonberger, Riordan, Lyter, & Orlofsky, 2007). Moreover, of students with disabilities in regular public schools only about 7.9% were labeled with E/BD and 46.4% with LD, whereas of youth with disabilities in secure care, 47.4% were identified as E/BD and 38.6% are identified as LD (Quinn et al., 2005).

A comprehensive review of reading and mathematics research on youth with E/BD and LD is beyond the scope of the current discussion. However, in general, youth with E/BD or LD have serious academic difficulties. Researchers (e.g., Greenbaum et al., 1996; Lane, Barton-Arwood, Nelson & Wehby 2008; Lane, Carter, Pierson & Glaeser, 2006; Trout Nordness, Pierce, & Epstein, 2003) consistently report that youth with E/BD and LD possess significant skill deficits in reading. Similarly, youth with disabilities commonly score below their nondisabled peers on national and state mathematics assessments. For example, on the National Assessment of Educational Progress

(NAEP) more than 40% of students with disabilities scored below the basic level (Lee, Grigg, & Dion, 2007).

With regard to youth with E/BD, Trout et al. (2003) reviewed the literature and reported that 89% of studies on reading indicated students with E/BD functioned below grade level. In another study of 155 youth with E/BD, 83% scored below the mean of the norm group across content areas on the Woodcock-Johnson-III (Nelson, Benner, Lane, & Smith, 2004). Similarly, in a recent meta-analysis Reid, Gonzales, Nordness, Trout, and Epstein (2004) noted that the academic achievement of students with E/BD consistently fell below that of non-disabled peers in reading and mathematics. Researchers (Carr-George, Van-nest, Wilson, & Davis, 2009) also have reported that only 44% of youth with E/BD met proficiency standards on state reading assessments.

Concerning youth with LD, researchers reported significant deficits in both reading and mathematics. For example, Lyon (1995) estimated that 80% of students with LD have difficulties with reading; specific difficulties have been reported for reading comprehension (Mastropieri, Scruggs, & Graetz, 2003), as well as a host of associated reading skills. Lane et al. (2006) noted that youth with LD typically scored two standard deviations below the mean on a standardized assessment of basic reading skills (e.g., sight vocabulary, phonics, structural analysis). Researchers (Algozzine, O'Shea, Crews, & Stoddard, 1987; Bryant, Kim, Hatman, & Bryant, 2006; Maccini, McNaughton, & Ruhl, 1999; Maccini, Mulcahy, & Wilson, 2007) also consistently note that youth with LD have deficits in mathematics that seriously impact their academic success (e.g., difficulties with procedural errors, organizing information, working and long-term memory, computation skills, and algebraic reasoning).

Behavior and Mental Health

In addition to academic difficulties, students in secure care have several unique and complicated behavior and mental health characteristics that can affect the provision of appropriate educational and other services. As noted, the rate of youth with E/BD in secure care is roughly six times that of regular public schools (U.S. Department of Education, 2009). Common characteristics of students with E/BD

may contribute to their difficulties while in secure care. For example, many of these youth lack basic cognitive and social skills needed for appropriate self-assertion and cooperation during their time in secure care (Gagnon & Richards, 2008; Nelson, Leone, & Rutherford, 2004). Additionally, deficits in interpersonal problem solving, future orientation, reward sensitivity, and the capacity for self-regulation are contributors to the maladaptive behavior exhibited by many juvenile offenders (see Steinberg, 2009). Students with primary emotional disturbance also exhibit frequent antisocial and aggressive tendencies that place them at greater risk for delinquency and placement in secure care (Connor, 2002).

Substantially increased rates of aggression, including symptoms of irritability, impulsivity, and emotional lability also are common to several clinical diagnoses of mental disorders prevalent in juvenile corrections, including conduct disorder (CD), oppositional defiant disorder (ODD), attention deficit hyperactivity disorder (ADHD), and various internalizing disorders such as anxiety and some subtypes of depression (Teplin, Abram, McClelland, Dulcan, & Mericle, 2002). Research has suggested that a disproportionate number of detained and committed youth have behavioral issues related to the cognitive deficiencies and/or distortions presented by these disorders (Cauffman, 2004; Teplin et al., 2002). Youth with one or more psychiatric disorders account for nearly half of youth in juvenile detention centers (Wasserman, McReynolds, Ko, Katz, & Carpenter, 2005), and roughly two-thirds of those in commitment facilities (Coalition for Juvenile Justice, 2000; Cocozza & Skowrya, 2000), while comparative prevalence rates for youth in the general population are approximated at 15–25% (Kazdin, 2000). Specific reports of the frequency of mental and behavioral disorders range from approximately 2.9–16% for ADHD to 10–25% for anxiety and depressive forms in youth in juvenile correction facilities (Teplin et al., 2002). Not surprisingly, disruptive behavior disorders (CD, ODD) occur in over half of youth in juvenile corrections (Teplin et al., 2002), and overlap considerably with populations that are educationally classified as having E/BD.

Of particular concern is the prevalence of youth with multiple behavior and mental disorders in secure care. Abram and colleagues (2003) used the Diagnostic Interview Schedule for Children (DISC, V. 2.3) with a

randomly selected sample of more than 1,800 detained youth to determine that more than half of those interviewed met criteria for multiple disorders. In a recent multi-state study of over 1,400 youth, Shufelt and Coccozza (2006) further report that 60% of youth with mental disorders in the juvenile justice system actually meet criteria for three or more disorders. The conferment of comorbid conditions among high proportions of incarcerated youth suggests that intensive treatment is necessary, as these youth are particularly resistant to treatment. For example, adolescents with comorbid CD and ADHD exhibit an increased tendency for chronic and repeated offending (Grisso, 2008).

For many youth in secure care, the issues associated with their mental health needs are significantly complicated by the presence of a co-occurring substance use disorder. It is estimated that roughly 45% of delinquent youth have substance use problems (Loeber, Burke, & Lahey, 2002; McClelland, Elkington, Teplin, & Abram, 2004). Frequently these issues co-occur with mental illnesses such as conduct disorder (McCord, Spatz-Widom, & Crowell, 2001; Teplin et al., 2002), and some researchers have theorized a connection between these factors (White & Gorman 2000; Mears 2001). By many estimates, substance abuse problems in secure care occur nearly three times as often as in the general population, and accounts of the regularity and severity of drug use support these estimates (Atkins et al., 1999; Shufelt & Coccozza, 2006; Teplin et al., 2002). For example, McCellend et al. (2004) reported substance use disorders in half of a sample of detained juveniles, with multiple substance use disorders occurring for nearly 21% of youth.

The behavioral and mental health problems seen for youth in secure care settings also may be related to traumatic experiences, including histories of abuse and neglect or exposure to violence. High rates of abuse and/or neglect are common to youth who are engaged with the juvenile justice system (Evans, Alpers, Macari, & Mason, 1996). Specifically, youth with histories of abuse are six to seven times more likely to be arrested than counterparts without such histories (Brooks & Petit, 1997). Of those involved with the juvenile justice system, rates of reported physical abuse are between 50 and 70% (Evans et al., 1996). Youth with E/BD in particular are reported to have experienced

higher incidence of abuse and neglect. For example, one national survey estimated nearly 38% of students with E/BD were physically or sexually abused, 41% were neglected, and over half had experienced emotional abuse (Oseroff, Oseroff, Westling, & Gessner, 1999).

Youth who have either witnessed or been victims to violence account for over 90% of detained youth and 11% of these youth are classified as having posttraumatic stress disorder (PTSD) (Abram et al., 2004; Teplin et al., 2002). In a study of the health status of youthful offenders, Shelton (2000) reported that 16% had experienced serious bodily injury (i.e., sustained gunshot or stab wound) within the past year. Youth experience of traumatic life events is associated with their behavioral characteristics; in particular, youth with PTSD are susceptible to responding to threats in an aggressive and unpredictable manner (Grisso, 2008).

Alarming, almost two-thirds of juvenile detention facilities hold youth who are awaiting mental health and/or substance abuse treatment (Coalition for Juvenile Justice, 2000). In 33 states, youth with mental illness are detained without any charges filed against them (U.S. House of Representatives Committee on Government Reform, 2004). The behavioral and mental health characteristics of delinquent youth have created a scenario in which juvenile corrections facilities have been described as the "community's de facto mental health center" (Grisso, 2008, p. 151). For this and other reasons, it is increasingly apparent that a need exists to attend to student characteristics in order to effectively guide practices for educating and treating confined youth.

Student Characteristics and Current Practices

In light of the complex academic, behavioral, and mental health characteristics of juvenile offenders in secure care, the development of comprehensive and rehabilitative programs is essential. Unfortunately, researchers and experts have voiced longstanding concerns with the provision of the most basic education, behavioral, and mental health services for youth in secure care (Gagnon & Richards, 2008). Educational services may be negatively impacted by such problems as physical space, insufficient funding, inadequate instructional time, frequent changes in

the daily schedule, and behavior-related interruptions (Rozalski & Engle, 2005). Further, approaches to youth behavior are often limited to those that are punitive in nature (Barton & Butts, 2008; Nelson et al., 2005), and segregating youth may be used in lieu of provision of appropriate mental health services (Leone, 1994). There is scant research on the implementation of research-based approaches in these areas. However, it is clear that evidence-based interventions can have a positive effect on incarcerated youth, and it is important to review available information in order to consider future directions for research and practice (Brunner, 1993; Greenwood, 2008; Katsiyannis, Ryan, Zhang, & Spann, 2008; Sidana, 2006).

Instruction

Research in the areas of mathematics and reading instruction has rarely taken place in secure care. Concerning mathematics, only case study and teacher reports currently exist on teachers' use of validated math instructional approaches. No mathematics instructional interventions have been published in secure care settings. Regarding observed or reported approaches, Coffey and Gemignani (1994) reported the common use of worksheets for drill and practice of math facts in juvenile corrections math classes. In their analysis of one facility, Maccini, Gagnon, Cutting, and Leone (2006) noted that few teachers used research-based instructional approaches shown to be successful with students classified as LD or E/BD (e.g., advance organizers, use of technology and real-world problem solving tasks, strategy instruction). Moreover, the researchers reported that no teacher in the study used other effective strategies, such as a graduated instructional sequence (i.e., beginning with concrete manipulatives, progressing to pictures, then to drawings, and then numbers and symbols), formal peer tutoring/collaboration as a part of student groupings, or all of the intended steps of explicit instruction. A recent national study of special education mathematics teachers working with students in secure care demonstrated similar findings. The only empirically validated instructional approach that teachers reported using on a daily or weekly basis was strategy instruction (Maccini, Strickland, Gagnon, & Malmgren, 2008).

Teacher reports of reading instruction in secure care are slightly more positive. In a

recent national survey of reading teachers in these settings (Wilkerson, Gagnon, & Mason, 2010), teachers reported using several research-based and recommended strategies on a daily or weekly basis including explicitly teaching literacy-related skills (e.g., vocabulary, text structure, summarization, study skills, spelling). Other studies (Allen-DeBoer, Malmgren, & Glass, 2006; Drakeford, 2002; Houchins, Jolivet, Krezmien, & Baltodano, 2008; Malmgren & Leone, 2000; Simpson, Swanson, & Kunkel, 1992) conducted in secure care emphasize the value of explicit instruction, and show positive results for the procedure when used in isolation or combined with other methods (e.g., peer tutoring).

Behavior and Mental Health Interventions

Youth in secure care facilities must be actively engaged in the learning process; however, problematic youth behavior can be a major obstacle that may lead to a restriction of access to educational offerings. Unfortunately, practitioner views regarding effective behavior policies and practices in corrections vary widely (Mears, Shollenberger, Willison, Owens, & Butts, 2008), and an attitude of punishment and control commonly dictate approaches to youth behavior (Nelson et al., 2005). In general, there is a lack of research on effective behavioral practices and supports for youth in secure care. The lack of research is confounded by methodological effects and inconsistencies in evaluative techniques (Greenwood, 2008), which make comparisons across facilities or programs difficult or impossible. However, some evidence of effective interventions does exist (see Greenwood & Turner, 2009). Among the specific program models that have shown promising results for incarcerated youth are school-wide positive behavioral interventions and supports (SWPBIS) and cognitive behavior therapy (CBT).

Recently, the value of SWPBIS has been recognized for improving treatment and outcomes for incarcerated youth (Gagnon, Rockwell, & Scott, 2008; Nelson, Scott, Gagnon, Jolivet, & Sprague, 2008). SWPBIS is a coordinated, proactive, and positive approach that is in contrast to the reactionary approaches to student behavior common to juvenile corrections (Read, Quinn, & Nelson, 2008), and works to build the capacity of schools or facilities for addressing the behavioral needs of

students through the systematic application of increasingly intensive strategies and/or supports (see Nelson et al., 2008 for review). SWPBIS is a promising approach to addressing the needs of adjudicated youth in the juvenile justice system, and is currently being used in more than 286 alternative and juvenile correctional schools nationwide (Danielson, Cobb, Sanchez, & Horner, 2007; National Council on Disability, 2003). Although necessary adjustments to meet the varied needs of confined youth remain unclear, preliminary results validate the use of SWPBIS in juvenile correctional facilities (Sidana, 2006).

Treatments following principles of CBT (e.g., Aggression Replacement Training, dialectical behavior therapy, problem solving and life skills instruction) also have demonstrated effectiveness for improving outcomes and reducing recidivism when implemented in secure settings (Greenwood, 2008; Lipsey, 2009; Pearson, Lipton, Cleland, & Yee, 2002). CBT uses a skill-building approach to teach adaptive reasoning and responding during situations that provoke negative feelings and reactionary behavior (Lipsey, Chapman, & Landenberger, 2001), and may be used to ameliorate and/or correct criminogenic patterns of thinking and behavior (Landenberger & Lipsey, 2005). Although the foci of CBT may vary, typical components include instruction on solving interpersonal problems, developing personal responsibility, and honing life skills and goals (Lipsey et al., 2001). Several evaluation studies and meta-analyses support the value of CBT-based programs for improving the behavioral and mental health outcomes of juvenile offenders (Guerra & Slaby, 1990; Landenberger & Lipsey, 2005; Latessa, 2006; Lipsey, 2009; Pealer & Latessa, 2004; Rhode, Jorgesen, Seely, & Mace, 2004).

Results of CBT have also shown promise for reducing the symptoms associated with PTSD in incarcerated juveniles (McMackin, Leisen, Sattler, Krinsley, & Riggs, 2002; Ovaert, Cashel, & Sewell, 2003). Analyses by Ovaert and colleagues suggested that treatment was most beneficial for youth with trauma related to gang and community violence. Similarly, the effects of CBT for abused youth in secure care are encouraging (Arnold et al., 2003).

A common feature of effective behavioral and mental health interventions for youth in secure care is a therapeutic orientation of treatment (Greenwood & Turner, 2009). However, only about 15–30% of detained youth

meeting criteria for a mental disorder receive treatment while in detention (Teplin et al., 2006); youth served in commitment facilities fare only slightly better (Kurtz, Thornes, & Bailey, 1998). For these reasons, the aforementioned positive behavior approaches should be considered in combination with other promising practices, including individual and group counseling (Guerra, Kim, & Boxer, 2008).

Future Directions for Research and Practice

Interventions based on student characteristics and needs are particularly critical, given the unique population in secure care. Wagner, Kutash, Duchnowski, Epstein, and Sumi (2005) noted the importance of understanding youth characteristics in order to develop and implement appropriate policies, programs, and service systems. Similarly, for incarcerated youth it has been suggested that interventions should target both student characteristics, as well as those characteristics that predict future reoffense (Altschuler, Armstrong, & Mackenzie, 1999). Despite these assertions, student characteristics have rarely been considered in the evaluation and selection of interventions, beyond identification of student disability or mental disorder (Chitsabesan et al., 2006; Skowrya & Cocozza, 2006). Accordingly, in the following sections we first consider some limitations to providing effective and responsive interventions in the secure context. We then discuss the potential of one model, Rtl, for guiding the selection and implementation of academic, behavioral, and mental health interventions with incarcerated youth.

Current Limitations to Research and Practice

An unfortunate pattern in the research is that many teachers in secure care settings do not use research-based instructional and behavioral approaches that are effective. Indeed, Greenwood (2008, p. 205) declares that “only about 5 percent of the youth who could benefit from these improved programs now have the opportunity to do so.” The identification and implementation of research-based strategies that address specific student characteristics is complicated by both practical and research issues (Howell & Lipsey, 2004; Greenwood & Turner, 2009). Concerning research, broad constructs such as disability often are used to identify

effective approaches, rather than more specific student characteristics. For example, in a review of research on mathematics instructional interventions (Maccini, Mulcahy, & Wilson, 2007) the primary approach to identifying the sample was student classification as LD. However, what is less understood is the effectiveness of interventions on more specific mathematics skills, or comorbid mathematics and reading skill deficits that may affect success in such tasks as mathematical problem solving. Green (2001) asserts that a "leap of faith" is often necessary to presume evidence of effectiveness for youth with certain characteristics when interventions are implemented with youth who are identified broadly. Thus, it is necessary to recognize the limitations of current research regarding links between specific student skill deficits, academic tasks, and intervention approaches.

Other difficulties arise when evaluating the current state of understanding concerning effective instructional, behavioral, and mental health practices for youth in secure care. Researchers have cited specific concerns with the lack of rigor in research on incarcerated youth (e.g., Lipsey & Cullen, 2007; Myers & Farrell, 2008). For instance, the quality of program implementation may be a significant moderator of treatment outcomes for correctional settings as personnel attempt to fit programs to the secure context (Andrews & Dowden, 2005). Often, institutional demands in terms of staff qualifications, supervision, information systems, and quality assurance limit the capacity of institutions to adopt programs as intended (Altschuler et al., 1999; Greenwood, 2008; Guerra & Leaf, 2008). The question that researchers must address is, "How do we work within current institutional demands in secure care?" and not, "Can we work within current institutional demands in secure care?" Leone and colleagues (2005) advised researchers to expand the scope of their investigations in secure care settings to include intervention strategies that are matched to youth needs, and determine how to apply identified best practices in juvenile corrections facilities.

Practical challenges and obstacles to implementing evidence-based practices also exist. For example, teacher training and knowledge may affect teacher use of research-based techniques regardless of student characteristics. Researchers (Gagnon & Maccini, 2007; Maccini & Gagnon, 2002; Maccini & Gagnon, 2006) have reported that the

number of mathematics methods courses taken by general and special education teachers is significantly related to the number of research-based instructional practices used by teachers. Specific to juvenile corrections, many empirically validated mathematics and reading instructional approaches are infrequently or never used in secure care due to a lack of training (Maccini et al., 2008; Malmgren, Gagnon, Melekoglu, & Cakiroglu, in press).

Interestingly, teachers also report that certain strategies do not meet their students' needs, despite the fact that these instructional approaches have been proven effective. Teachers in secure care reported rarely or never using peer-mediated instruction, despite research supporting its use with students with learning and behavior problems (see Calhoun & Fuchs, 2003; Xin, Jitendra, & Deatline-Buchman, 2005). Malmgren et al. (in press) also noted that teachers in secure care may not consider the teaching of basic reading skills to be within their purview as secondary educators. This restrictive approach to instruction and student needs does not adequately take into consideration that more than 30% of youth in secure care reportedly read below a basic level (Malmgren et al., 2009).

Future Directions

As noted throughout the previous discussion, research clearly demonstrates that there are effective instructional, behavioral, and mental health strategies that can be applied in secure care settings. However, interventions may be ineffective or used infrequently for many reasons, including failure to address relevant contextual and training factors, insufficient treatment dosage or duration, or failure to address the unique needs of individual juveniles. Current limitations make clear the need for a framework to guide the selection and implementation of evidence-based approaches to instruction and behavior that are at once responsive to characteristics of delinquent juveniles and to the secure context. Specifically, Mulvey and Iselin (2008) suggest that structured judgment is necessary pertaining to (a) efficient and equitable screening at intake, (b) decision making based on actuarial and clinical information, and (c) implementation and use of data systems in order to make effective choices regarding education and treatment. These needs are made apparent by the difficulties of obtaining prior student

records during youth movement through the juvenile justice system (Leone & Cutting, 2004). The haste in which students are transferred makes additional disability evaluations unlikely to occur, resulting in many disabled youths being unidentified (Morris & Thompson, 2008). Short-term detention facilities in particular must often rely on juvenile self-reports of past educational and special educational services (Robinson & Rapport, 1999). Some researchers (Shelly-Tremblay, O'Brien, & Langhinrichsen-Rohling, 2007) have suggested that widespread screening of youth in juvenile corrections may be an appropriate approach to developing interventions based on student characteristics.

One model, Rtl, has received attention in recent years for use with youth for whom traditional identification and methods for selecting appropriate interventions have failed (Gresham, 2007). In particular, Rtl has been suggested as a framework for guiding data-based decisions and for more adequately identifying student characteristics that contribute to observed disabilities such as E/BD and LD (Gresham, 2005; Mastropieri & Scruggs, 2005). As previously documented, youth with these disabilities are overrepresented in secure care settings. Based on a public health perspective, Rtl emphasizes the application of evidence-based interventions in a progressively intensive manner. Although Rtl is still in the beginning stages of implementation, it has been a focus of recent training in 41 states (of 44 surveyed; Hoover, Baca, Wexler-Love, & Saenz, 2008).

An Rtl approach has yet to be applied empirically in secure care settings, yet its promise for helping facilities develop program structures with necessary education and behavior supports, services, and interventions has not gone unrecognized. Myers and Farrell (2008) recently proposed that a "public health prevention logic remains applicable within the juvenile justice system and a hierarchy of primary, secondary, and tertiary interventions can be envisioned even within juvenile justice residential facilities" (p. 1162). Indeed, the initial promise shown by implementation of SWPBIS, a similarly tiered system framed within a preventive perspective, has cast much hope that such positive, proactive approaches will benefit youth within the secure care context (Gagnon et al., 2008). Applying the Rtl and SWPBIS logic, universal facility-wide procedures for screening and intervention are recommended that include academics, behav-

ior, and mental health. Targeted secondary supports, such as intensified instruction, vocational and prevocational training, and substance abuse programs may then be selected for smaller groups of youth. Tertiary level intervention is reserved for youth in secure care with significant academic, mental health, and behavioral needs.

As noted throughout our discussion, the multifarious characteristics of youth in secure care require collaborative efforts across disciplines. Gagnon and Richards (2008, p. 40) emphasize that "collaborative efforts should include discussion of policy and practice, methods for implementation, and accountability for program effectiveness." Moreover, cross-system evaluation of program fidelity and ongoing staff training will increase the likelihood of consistent implementation (Young, 2004). The improvements in screening, identification, universal, secondary, and tertiary supports, if coordinated across education, corrections, and mental health, have potential for improving the services of youth in secure care. It is clear that more research is needed to determine the applicability of frameworks that base education and treatment decisions on existing student characteristics in secure care contexts. However, the logic of coordinated, responsive approaches such as Rtl for facilitating appropriate education and mental health services is undeniable. The challenge remains to optimize the use of existing best practices in light of the unique characteristics of incarcerated youth, and to collaborate in our efforts to rehabilitate and remediate these youth.

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AUTHORS' NOTE

Correspondence address: Joseph C. Gagnon, Ph.D., University of Florida, Department of Special Education, P.O. Box 117050, Gainesville, FL 32611-7050 (352) 273-4262 Fax: (352) 392-2655

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