

Developing a Forensic Service Delivery System for Juveniles Adjudicated Incompetent to Stand Trial

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Our study examines the experiences of 563 youth ordered into restoration services after a judicial finding of adjudicative incompetence. Among this group, 72% were determined to be restored to competence usually within 90 to 120 days of services provided in the least restrictive environment allowed by the courts. These outcomes were achieved using an individualized psycho-educational intervention that combined intensive case management, developmentally informed interactive educational tools, and case integration and mentoring by specially trained restoration counselors. These individualized services were provided to each youth on average three times a week by the restoration counselor contracted to provide services in the location where the youth was residing. No juveniles were admitted for inpatient hospitalization for the purpose of restoration only. Five percent were hospitalized based upon civil commitment criteria or for further psychiatric evaluation or stabilization. Chi-square Automated Interaction Detector (CHAID) analyses were used to create decision trees of the restoration pathways demonstrated by four subgroups of youth: Mental Illness Only (MIO), Mental Retardation Only (MRO), Mental Illness and Mental Retardation (MI-MR), and No Mental Illness and No Mental Retardation (NMI-NMR). The interaction of individual characteristics and interventions varied across the four groups with the highest rates of restoration being achieved by youth in the NMI-NMR group (91%) and the lowest rate among youth in the MRO group (47%). These rates of restoration are comparable to those achieved using residential treatment for youth and inpatient hospitalization for adults.

Keywords: juvenile legal capacity, competency to stand trial, forensic service delivery

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The health care reform that is doggedly being debated in the U.S. has veered away from the fundamental reforming of the healthcare system and moved instead toward the enactment of a battery of pilot programs or small-scale experiments. Crafted in part on the experience that the U.S. had with agricultural reform in the early 1900s, the assumption is that the change of a complex system embedded in diverse private and public interests cannot be solved by fiat. Instead, it is better managed through the creation of innovative pilot projects which will demonstrate effective solutions and lead to the incremental implementation of system reform (Gawande, 2009). This approach recognizes that some systems are so complex that no one knows the optimal way to transform the myriad components in all the diverse settings for the multitude of unique individuals who require care. Rather, the goal is to create a feedback loop where new approaches can be tried on a small scale and if successful, translated by choice, to new settings and environments. In this way, synergistic efforts begin to bring about changes in the larger system so that adaptive reform, in fact, begins to take place based upon experience and observation, and not opinion alone.

This approach has guided our efforts to develop a responsive, equitable, and effective forensic service delivery system for youth who are legally mandated by the courts to be provided restoration services. These youth have come in contact with the juvenile justice system like many others, often because of crimes that would be considered felonies in criminal court. Yet, they have demonstrated impairments significant enough to convince the court that it would be unfair and unjust to allow them to proceed through an adjudicative process that they are unable to understand or contribute to adequately. Under these circumstances, services must be provided to these youth to restore them to a state of adjudicative competence or the charges dismissed in a reasonable amount of time. While legally clear-cut, the provision of these services constitutes a challenging service delivery mandate both because of the young ages of the individuals receiving services and the multiple psychiatric, cognitive, and developmental issues that may intertwine in the expression of each youth's unique, individual struggles.

In the current study, we explore these issues as they have found expression in our conceptualization and development of the Virginia Juvenile Competency Program (VJCP). Beginning in 1998, an interdisciplinary work group met for over a year to draft legislation which we believed best captured the legal meaning of adjudicative competence in juvenile court. It defined a community-based approach to offering remediation services to youth of all ages in the least restrictive alternative allowed by the courts. This legislation was passed into law beginning on July 1, 1999, and served as the foundation for creating the VJCP which has now offered services to over 900 youth aged eight to 18 consistently in their homes or places of residence. We will outline the philosophy that has defined the program and the empirical data that has emerged

from it. Specifically, we will review the services that were provided to the first 563 youth court-ordered into the program and for whom the courts made a final finding on the issue of competence. We will examine the legal outcome of the remediation efforts offered to them and the factors that appear most relevant in determining which youth were successfully remediated and which were ultimately determined to be un-restorably incompetent or had their charges dismissed. Our goal in this effort is to help inform other states as they embark on similar efforts to codify juvenile competence and to contribute to the efforts of social sciences to understand and define the psycho-legal process of restoration for juveniles. Moreover, we believe that the processes involved in the development of this service delivery system may hold promise to other programs in providing mental health services to youth and to adults with psychiatric impairments within the criminal justice system.

Adjudicative Competence in Juvenile Court

Relatively recent changes in the juvenile court have prompted an active interest in the legal decisional capacity of youth. Legal research has sought to explicate the emerging synthesis of the traditional *parens patriae* interest in the rehabilitation of youth with an increasing adversarial interest in the punishment and social control of youth convicted of violent offenses. Social science researchers have focused on the characteristics of youth that make them more or less likely to be found incompetent and the ways in which developmental processes may impact their ability to intelligently and knowingly navigate through an adjudicative process with a "rational understanding" of its intent and outcome. Juvenile justice and child mental health practitioners have struggled to determine how best to programmatically address the needs of youth with psychiatric and intellectual impairments in the juvenile justice system as well as ways to provide services that might have legal and therapeutic relevance to them. Embedded in each of these three perspectives is a shared concern for youth with severe impairments who are adjudicated despite their limited ability to understand and actively participate in the legal process. Compounding these concerns is the transfer of a significant proportion of these youth to criminal court for adjudication, along with the lasting impact that juvenile convictions can now have with regard to either sentencing enhancements or civil commitment procedures long after these youth reach the age of 21 years.

These interests have begun to coalesce around the promotion of legislation that affirms the right for a juvenile to be competent at the time of adjudication and that defines the service delivery system necessary to provide the requisite evaluation and remediation services to them. These initiatives reflect a growing consensus concerning the need to examine the *Dusky v. United States* (1960) standard as it might apply to the hybrid juvenile court. In criminal court, the seriousness of the charge and the complexity of the legal

process that unfolds are pivotal to the consideration of the degree of understanding and reasoning ability that are required to determine an adult competent to stand trial. When the same considerations are applied to the juvenile context, the question arises as to how much the juvenile context mediates or modulates the capacity that must be demonstrated to be competent to stand trial in juvenile court. For example, could a youth be determined to be incompetent in adult court but reassessed and found competent in juvenile court given the lighter sentences, the possible presence of a guardian *ad litem*, and the different attitudes of prosecuting attorneys when dealing with a juvenile offender? Moreover, within this context should specific impairments be seen as complete barriers to competence, as they might if encountered in criminal court, or should they be viewed as deficits that might be remediated through situational and interpersonal supports within the adjudicative process? And finally, does the focus on ability and capacity as opposed to knowledge and experience allow youth with limited factual understanding to be presumed to be competent, and if so, to whom do these youth turn for remediation and mentoring on relevant legal matters? These are important questions with direct relevance to the evaluation of youth pre-adjudication and the restoration of youth found incompetent and ordered by the court to be provided restoration services.

Bonnie and Grisso (2000) addressed the significance of adjudicative competence in the juvenile context, observing that competence was important not only for the obvious reasons of protecting an individual defendant's decision-making autonomy and reducing erroneous convictions, but also for protecting broader goals of democracy and for preserving the integrity and dignity of the legal process. Beginning with their two-pronged model of adjudicative competence, which underscored the functional ability to assist counsel and the decisional capacity to apply legal constructs, they sought to explore the application of these principles to the juvenile court. Observing the multiple ways in which the juvenile court differs from criminal court, they suggested that an alternative legal standard may apply when juveniles are being adjudicated in juvenile court. In seeking to define this standard, they suggest that a basic understanding of the purpose of the proceeding and an ability to communicate with counsel may be enough given the more protective confines of the juvenile court. From this perspective, a fully developed ability to reason about legal proceedings or to demonstrate a comprehensive appreciation of the legal proceedings could be delegated somewhat given the additional efforts of the court to maintain the juvenile in a more therapeutic/rehabilitative milieu with less severe punishments.

Viljoen, Zapf, and Roesch (2007) sought to explore the empirical ramification of this reinterpretation using the Fitness Interview Test – Revised (FIT-R). Referencing the *Ohio v. Settles* (1998) appellate opinion that “juveniles are assessed by juvenile not adult norms,” they examined the performance of youth using both the revised juvenile and adult norms of

this instrument. The juvenile standard was conceptualized as reflecting the “basic understanding and communication” standard proposed by Bonnie and Grisso (2000), while the adult standard encompassed dimensions of understanding, appreciation, and communication as measured by the FIT-R. Viljoen, Zapf, and Roesch (2007) found that rates of competence varied based upon whether juvenile or adult standards were used. Surprisingly, appreciation-related abilities, often considered higher level capacities, were often less impaired among youth than the more rudimentary aspects of a basic understanding of the court process.

Research among adults has clearly documented the relationship between serious mental illness or intellectual disability and a finding of incompetence, both as reflected in the opinions of forensic evaluators and the opinions of the courts (Hubbard, Zapf, & Ronan, 2003; Warren et al., 2006). These same factors have been found to be associated with significant deficits in the legal understanding of youth and their ability to actively engage in a legal process (Cowden & McKee, 1995; Grisso et al., 2003; McKee, 1998; Warren, Aaron, Ryan, Chauhan, & DuVal, 2003). The significance of these influences is underscored by recent research that indicates that two-thirds to three-quarters of detained juveniles have been found to suffer from at least one mental disorder (Teplin, Abram, McClelland, Dulcan, & Mericle, 2002; Wasserman, McReynolds, Lucas, Fisher, & Santos, 2002). These mental disorders are further compounded by learning disorders and other academic difficulties that are common among this population (Grisso et al., 2003; Viljoen, Klaver, & Roesch, 2005).

The interactive effects of psychopathology and normal development as well as the combined effect that these conditions can have on a juvenile's ability to carefully reflect upon their legal situation is of significant importance. Separately and together with diagnosable conditions, developmental processes can significantly impact the thinking and behavior of youth in ways that have direct consequence to their involvement in court processes. Research in this area has sought to examine these influences using a variety of concepts including judgment and maturity along with more specific characteristics such as egocentricity, a failure to consider long-term consequences, increased risk taking, and a heightened susceptibility to peer influence (Cauffman & Steinberg, 2000; Frost & Volenik, 2004; Scott & Grisso, 2005; Steinberg, Cauffman, Woolard, Graham, & Banich, 2009).

Not surprisingly, virtually all studies have found that age is indeed related to competence, with younger adolescents being less likely to be competent than older juveniles (Baerger, Griffin, Lyons, & Simmons, 2003; Burnett, Noblin, & Prosser, 2004; Cowden & McKee, 1995; Grisso et al., 2003; McKee, 1998; McKee & Shea, 1999; Savitsky & Karras, 1984; Viljoen, Klaver, & Roesch, 2005; Warren et al., 2003). Both the MacArthur juvenile competence study (Grisso et al., 2003) and the Warren et al. (2003) study examined the effects of intelligence and psychiatric factors on juveniles'

adjudicative competence and found that intelligence, especially verbal intelligence, was a strong predictor of competence, at times overpowering the effects of the psychiatric diagnoses commonly found among children and adolescents.

Competency Restoration

In adult court, it is estimated that approximately 60,000 competency to stand trial evaluations are performed each year in the U.S. (Bonnie & Grisso, 2000). In conducting these evaluations, clinicians must form not only an opinion regarding the defendant's competence to stand trial, but also—for defendants considered incompetent to stand trial—an opinion regarding the defendant's *potential* to become competent, if provided with appropriate restoration services (*Jackson v. Indiana*, 1972; Melton, Petrila, Poythress, & Slobogin, 2007). Although a body of research addresses the factors that contribute to an initial opinion regarding competence, there is much less research on the factors that influence predictions about potential restorability and the concurrence of these predictions with the final decision-making by the courts.

Hubbard et al. (2003) examined competence reports for 468 adult Alabama defendants. Of those reports that featured an opinion regarding restorability, 64% predicted competence to be restorable whereas 36% opined that the defendant lacked the capacity to be restored to an acceptable level of understanding and reasoning. Those considered more likely to be restored tended to be younger and were more likely to have a previous criminal history, had a diagnosis of a nonpsychotic disorder, and evidenced some understanding of the criminal justice system. Warren et al. (2006) reported similar findings in their review of 8,416 forensic evaluations of trial competence in adults. In their sample, 52% of the incompetent defendants were considered to be "likely restorable," 26% were thought "uncertain," and 23% were considered "unlikely" to be restored to competence. Defendants deemed unrestorable were less likely to have had prior convictions, less likely to be diagnosed with psychotic or affective disorders, but more likely to be diagnosed with significant organic or intellectual/learning deficit disorders. Mossman (2007) studied 351 adult defendants determined incompetent to stand trial and hospitalized in Ohio and found that two groups—individuals with long-standing psychotic illnesses combined with lengthy periods of psychiatric hospitalization and individuals with irremediable cognitive disorders—were least likely to be restored to competence. The overall rate for restoring felony defendants was 75%; notably 90% of younger defendants who did not enter the hospital with a diagnosis of schizophrenia or mental retardation were restored to competence within an average of 24 days.

In all states, most adult defendants who are determined to be incompetent are committed to state psychiatric facilities for restoration purposes (Melton et al., 2007). This tradition grew out of a focus on inpatient treatment for most indi-

viduals with serious mental illnesses. Inpatient competence restoration has continued despite growing evidence that a significant number of these individuals do not suffer from any type of psychiatric disorder but rather present with significant intellectual deficits that have made their understanding sparse or intermittent when applied to the trial process. This reality has policy and programming significance as these inpatient interventions most often occur in high security and expensive state hospital beds. The continuation of this tradition transfers a significant cost to the state mental health system despite the use, in many instances, of predominantly educational interventions. Moreover the growing forensic demands placed upon shrinking inpatient facilities further limits the availability of scarce inpatient beds and makes it increasingly difficult to hospitalize individuals with acute and severe mental illness, but no contact with the courts.

Given the lengthy history behind this practice and the substantial number of individuals committed by the courts to inpatient restoration programs at any given time, the dearth of research on methods of competency restoration is remarkable. The one published empirical study written in recent years on competency restoration of adult defendants (Bertman et al., 2003) examined the effect of individualized restoration treatment (i.e., deficit-focused remediation), legal rights education, and standard hospital treatment. Contrary to expectations, although the first two groups (deficit-focused remediation and legal rights education) demonstrated 50% greater improvement on the competency performance measures compared to the standard hospital treatment group, they did not differ significantly from each other. Walls, Brandon, and Guilmette (2003) described the development of the Slater Method for restoring individuals with a diagnosis of mental retardation to competence within a secure forensic hospital and in the community but were able to comment on the outcome of only nine cases, five of which were restored to competence over periods of eight months to three years.

Only one published study has investigated competency restoration services for juvenile defendants. McGaha, Otto, McClaren, and Petrila (2001) examined over 400 youth ordered into restoration services in Florida. The most common diagnosis was Conduct Disorder (57%), followed by Attention Deficit-Hyperactivity Disorder (37%). Only 17% of the juveniles carried a psychotic diagnosis. Each of these juveniles was subject to residential treatment in secure settings, averaging 217.5 days (per child) of restoration treatment. After this type of restoration effort, the majority (71%) of children were determined by the evaluating clinician and by the court to be competent. Ultimately, 44% of the juveniles with mental retardation (without a co-occurring diagnosed mental illness), 34% with a co-occurring mental illness and mental retardation, and 8% with a mental illness only (no mental retardation) were found to be unrestorably incompetent following treatment. The Florida study excluded youth who were transferred to adult court or who were considered

incompetent to proceed because of developmental immaturity.

Building upon this preliminary research, Viljoen and Grisso (2007) reflected upon the various conditions that contribute to incompetence among juveniles and sought to articulate the various legal capacities that might be considered when evaluating or seeking to restore these juveniles to competence. They identified four overarching capacities: 1) factual understanding of basic legal constructs, 2) rational understanding and the ability to apply relevant legal information, 3) a sustained ability to communicate with one's attorney, and 4) adequate reasoning and decision-making skills based upon the complexity of the legal situation facing a particular juvenile defendant. They emphasized the need for research that could begin to explore the interventions that might be used to restore juveniles. Within this discussion, they argue for the use of the term "remediation" rather than "restoration" in juvenile court due to the nascent quality of these abilities in some young juveniles.

The Virginia Juvenile Competency Services

In 1999, the Commonwealth of Virginia's General Assembly enacted a law allowing juvenile offenders who were charged with a delinquency offense and before a juvenile court to raise the issue of competency to stand trial before proceeding within the adjudicatory process (VA Code Ann. §§16.1-356 to 161.361). These statutes reflected the standard articulated in the *Dusky* decision handed down by the U.S. Supreme Court in April 1960, requiring that each defendant have a "sufficient present ability to consult with his lawyer with a reasonable degree of rational understanding and . . . a rational as well as factual understanding of proceedings against him." Virginia's new legislation did not require that a threshold condition of mental retardation or mental illness be present for a finding of incompetence and identified the saliency of developmental factors as long as they demonstrated functional impairment in the requisite competency-related abilities.

Based upon this new law, the Virginia Juvenile Competence Program (VJCP) was created to respond to the service delivery needs embedded in this legislation. Unlike the Florida program, the VJCP requires that juvenile competence restoration services be provided to all youth in the least restrictive setting allowed by the courts. In developing its philosophical or conceptual foundations, the VJCP looked to the system of care model developed by Pires (2002) for providing care to children with mental health problems. The model emphasizes the presence of a single, primary case manager who coordinates all services guided by an individualized service plan, provided in the least restrictive appropriate setting, and which involves families at all key decision-making points.

To implement this service delivery system, juvenile forensic evaluation training was developed through the University of Virginia (UVA) and competence restoration training through the Virginia Department of Behavior Health

and Developmental Services (DBHDS). During the three days of initial restoration training, restoration counselors and restoration supervisors employed by community mental health centers across the Commonwealth are introduced to a coordinated and progressive educational curriculum. It incorporates a specifically designed series of tools including an interactive CD-ROM, a workbook, a board game, videos and flashcards with games and exercises designed for each child based upon their special needs. They are also introduced to the various timelines, court orders, consent forms, home-based practice guidelines, security recommendations, and billing procedures that have evolved out of the experience of the VJCP over the past decade. These are integrated into a case coordination framework which emphasizes the need for individualized service plans for each child and the systematic identification of any and all barriers to competency for each child. Restoration or remediation services are provided through face-to-face contact between the restoration counselor and the youth approximately three times a week, usually for 60 minutes per session. Independent evaluations are conducted prior to each court hearing and at any point when the restoration counselor believes that the youth has been restored to competence or that the youth is likely to remain incompetent for the foreseeable future.

In developing the first and second series of educational tools designed to assist in the restoration process, the expertise of legal scholars, attorneys, mental health clinicians, juvenile justice treatment providers, in-home service providers, fiscal management specialists, computer games art and programming experts, special education consultants, and intellectual disabilities specialists was sought and incorporated into the work. Our goal was to sculpt a program that would be optimally responsive to engaging and holding the interest of children and adolescents, while offering them the conceptual learning that would allow them to integrate important legal constructs into a rational understanding of their own legal situation. This effort began with the creation of an interactive CD-ROM, *Jamal in a Jam*, which was combined with court videos, workbooks, board games, flashcards, and movie segments relevant to court interactions. Recently, we have completed a second series of tools, *DJ and Alicia*, a lengthier and more sophisticated CD-ROM, which encompasses the experience of two youth as they navigate their way through different legal processes and reach different legal outcomes. The story of *DJ and Alicia* and the interactive exercises embedded in it are presented in pictorial images with no use of the written word. This project has also involved the creation of a web-based juvenile competence case management database which collects information on the psychiatric and educational history of each youth, the rulings and orders issues by each court, the training and contact information for each restoration counselor providing services, the educational tools and methods used and the cost of each session provided to the youth over the course of the restoration process.

Overall, the program provides extensive coverage of *Miranda* rights and waiver to criminal court and provides interactive reviews after each scene. The responses will ultimately be quantified and transported by the web to the case management database that is housed both at the UVA and the VADBHDS.

The Current Study

The current study reflects data collected on 563 youth aged 8 through 20 years who have been ordered into restoration services by Virginia juvenile courts over an 8-year span. Clinically, we were interested in examining these data to determine the psychiatric, cognitive and developmental factors that were commonly associated with a finding of incompetence among this group. Programmatically, we sought to explore the impact of particular restoration techniques on the legal abilities of youth. We examined data with youth of differing ages, multiple combinations of clinical characteristics and challenges, and with varying degrees of psychiatric impairment.

METHOD

Participants

Each of the youth had been charged with a delinquency offense in juvenile court and none had been transferred to criminal court at the time of the initial finding of incompetence (although many would be transferred to be tried as adults, upon a finding of competency in juvenile court). The ages of the youth ranged from 8 to 17 at the time of the offense with 84% of the youth being of a minority status and 88% being male. If a youth had been ordered into restoration services on more than one occasion, only his or her first contact with the VJCP was used as the basis of analyses.

Measures

Age. The age of each youth was recorded from the petition of the court that was submitted to the VJCP by the charging court. It reflects the age of the youth at the time of the alleged offense. Age is collapsed into three categories: age category 1 (ages 8 through 10), age category 2 (ages 11 through 13), and age category 3 (ages 14 through 17). These categories were used to best capture common developmental periods associated with prepubescent, pubescent, and adolescent youth. As all youth began receiving restoration services within 14 days of the court hearing, these dates in almost all instances similarly reflect their age at the time that the restoration services were provided to them. In a few instances, youth received restoration services at ages beyond 18 years (up to 20 years) based on offenses that had allegedly occurred prior to them reaching the age of maturity.

Minority status. The ethnicity of each youth was coded as being of either minority or non-minority status. The minority category included African American, Hispanic, Asian, and Native American youth. The non-minority category included only Caucasian youth.

Offense. Offense was coded as either misdemeanor or felony, with the most serious charge in any series being used in the current study.

Diagnoses. Most youth underwent a second evaluation of adjudicative competence by a licensed mental health provider at the time of their entry into the restoration program. The purpose of the evaluation was to determine the barriers to adjudicative competency and the types of interventions that were most likely to remediate them. Based upon this assessment, which included a review of each juvenile's scholastic and behavioral health records, each youth was classified into one of four broad diagnostic categories: mentally ill-only (MI-only), mentally retarded-only (MR-only); mentally ill and mentally retarded (MI-MR), and those with no mental illness and no mental retardation (NMI-NMR). Only diagnoses identified by a licensed mental health practitioner were included in the analyses. Conduct disorder was rarely included in the category of mental disorders. The NMI-NMR group was made up primarily of younger youth who were characterized by deficits associated with developmental immaturity possibly aggravated by other factors that did not warrant a formal psychiatric diagnosis.

School status. The school status of each juvenile was identified according to nine categories used by state educational agencies including Emotionally Disturbed (ED), Learning Disabled (LD), Mild Mental Disability (MIMD), Moderate Mental Disability (MOMD), Severe and Profound Disability (SPD), Other Health Impaired (OHI), Speech Language Impaired (SLI), Visually Impaired (VI), and Hearing Impaired (HI). Each youth was coded according to a single designation reflecting their formal status within the public school system.

Time spent in services. The period of services was measured in months rounded to the closest 4-week total. The beginning date was the date VJCP received the court order for restoration services. The end date reflected the date of the court hearing during which the judge ended the provision of restoration services for a particular youth. This determination by the court included findings that the youth had been restored to competence, was determined to be unrestorably incompetent, or was having the charges dismissed on agreement of the defense attorney, prosecuting attorney, and the judge. No effort was made to provide a particular dose of services to each youth by the VJCP. Services continued until an independent evaluator offered an opinion that the youth had been restored to competency or was unlikely to be restored to competence in the foreseeable future. At this point, the youth would be referred back to the court for a judicial review of adjudicative competence.

Restoration techniques. Restoration techniques were classified using categories of intervention: educational

restoration techniques (I, II, and III), medication management, home-based services, mental health counseling and support services, substance abuse services, inpatient hospitalization, residential treatment, and other. The first category of educational techniques (ED I) included role playing the court process, role playing the relationship with an attorney, talking to the juvenile, and talking to the juvenile's family members. The second educational category (ED II) category included a visit to a real courtroom, the use of a courtroom simulation video, and use of film clips involving courtroom scenes. The third category (ED III) included a series of psycho-educational tools including the use of an interactive CD-ROM titled *Jamal in a Jam*, accompanied by a board game, a workbook/coloring book, and flashcards which were all based upon the characters and situations covered in the interactive CD-ROM. This series of educational tools was generally offered to each youth in a sequential manner over the course of restoration services. The most effective combination and sequencing of educational tools and methodology was determined on an individualized basis for each youth. Youth who were unable to read were provided additional assistance by the juvenile competency restoration counselors to enable the youth to learn the information and the legal constructs designed to be taught using these educational tools. Some of the youngest, most cognitively impaired youth did not have the capacity to benefit from the interactive exercises contained in the *Jamal in a Jam* CD-ROM. These youth would work with the other tools including the courtroom simulation board, the coloring/workbook, and the use of flash cards that use pictorial images to convey the key legal concepts. The issue of transfer was not included in the first series of tools and for this reason has become a central part of the second generation of tool development.

The clinical services were offered using an intensive care coordination or case management approach to service delivery. These case management services were provided to ensure that the psychiatric and mental health needs of each youth were appropriately assessed and that any barriers to competence were addressed. In many instances, the living situation of the family was so problematic due to various social issues that the juvenile was unable to benefit from restoration services. When necessary, intensive case management services were provided to ensure that the living situation of the juvenile was improved to the extent that the juvenile could participate and benefit from the services.

Location of restoration service. The location of the juvenile's residence at the time of each restoration session was recorded by the restoration provider at the end of each week of services. The various locations included the juvenile's home with immediate family members, home of relative, foster home, group home, juvenile detention center, adult jail, psychiatric hospital, residential treatment center, emergency shelter, and other. If a youth moved from one location to another during the provision of restoration ser-

vices, the primary location was used in the current analyses. No juvenile was hospitalized or placed in a residential treatment facility to obtain juvenile competency restoration services.

RESULTS

Preliminary Analyses

All cases were checked for duplication and entered into the data set only once if the final outcome of the case had been ascertained. Youth who had been ordered into restoration services on more than one occasion for separate offenses were entered into the data set only once based upon their first restoration order. These efforts resulted in a total sample size of 563.

Descriptive Statistics

Table 1 summarizes the demographic, delinquency charges, and diagnostic characteristics of the youth court ordered into restoration services along with the final disposition of the courts. The youth were almost equally divided by age—49% were under the age of 14 years (i.e., age categories 1 and 2) and 51% were over the age of 14 years (age category 3). Despite these age differences, 407 of 563 youth (72%) were eventually determined to have been restored to competence. This percentage varied by age with 61% of the youngest group being restored to competence, 78% of the middle group, and 72% of the oldest group. Charges were dismissed most often in cases involving the very young children aged eight to ten years (19%). Males comprised 88% of the sample. Most youth were of minority status (84%) and the majority had been charged with a felony offense (74%). Clinically, the largest proportion of the youth fell within the MI only group (40 percent), although 26% were determined to be incompetent based upon factors unrelated to either mental illness or mental retardation.

Psychiatric diagnosis was robustly correlated with the outcome of the restoration efforts. Of those youth with MR only, 44% were eventually determined to be unrestorably incompetent, as were 42% of the youth who were in the MI and MR category. Most of the youth with MI only (84%) were restored to competence, as were 91% of the youth who were in the NMI and NMR category.

Table 2 summarizes various descriptors of the restoration services that were provided to each youth including the number of sessions, length of time over which the services were offered, and the nature of the services. Most commonly, youth were offered services over a period of 61 to 90 days, with a small number being restored in less than 30 days (1%) and a slightly larger group being restored after more than six months of service (8%). Of those receiving services for more than 180 days, 55% of this group was determined to be restored to competence while the remaining 45% was

TABLE 1
Demographic, Criminal, and Diagnostic Variables by Opinion Regarding Restorability

| Variable (N) | CST/Restored (%) | Dismissed (%) | IST | Unknown | URIST | χ^2 |
|--------------------------------|------------------|---------------|--------|---------|----------|-----------|
| Age | | | | | | 25.51*** |
| 1–8 to 10 (75) | 46 (61) | 14 (19) | 1 (0) | 0 (0) | 14 (19) | |
| 2–11 to 13 (199) | 156 (78) | 8 (4) | 0 (0) | 0 (0) | 35 (18) | |
| 3–14 to 17 (286) | 205 (71) | 16 (6) | 1 (0) | 1 (0) | 65 (23) | |
| Gender | | | | | | 4.47(NS) |
| Male (493) | 361 (73) | 30 (6) | 2 (0) | 1 (0) | 99 (20) | |
| Female (70) | 46 (66) | 8 (11) | 1 (0) | 0 (0) | 15 (21) | |
| Minority Status | | | | | | 4.43(NS) |
| Not Caucasian (474) | 350 (74) | 31 (7) | 2 (0) | 1 (0) | 90 (19) | |
| Caucasian (89) | 57 (64) | 7 (8) | 1 (0) | 0 (0) | 24 (27) | |
| Type of crime | | | | | | 5.55(NS) |
| Misdemeanor (144) | 101 (70) | 13 (9) | 0 (0) | 1 (0) | 29 (20) | |
| Female | 18 | 3 | 0 | 0 | 11 | |
| Male | 83 | 10 | 0 | 1 | 18 | |
| Felony (419) | 306 (73) | 25 (6) | 3 (1) | 0 (0) | 85 (20) | |
| Female | 28 | 5 | 1 | 0 | 4 | |
| Male | 278 | 20 | 2 | 0 | 81 | |
| Psychiatric diagnoses | | | | | | 125.70*** |
| MI Only (225) | 189 (84) | 21 (9) | 0 (0) | 0 (0) | 15 (7) | |
| MR Only (63) | 30 (48) | 4 (6) | 1 (2) | 0 (0) | 28 (45) | |
| MI & MR (152) | 76 (50) | 9 (6) | 2 (1) | 1 (1) | 64 (42) | |
| NMI & NMR(123) | 112 (91) | 4 (3) | 0 (0) | 0 (0) | 7 (6) | |
| Substance Abuse | | | | | | 3.45(NS) |
| Yes (28) | 24 (86) | 0 (0) | 0 (0) | 0 (0) | 4 (14) | |
| No (535) | 383 (72) | 38 (7) | 3 (1) | 1 (0) | 110(21) | |
| School status | | | | | | |
| ED (153) | 113(73.9) | 14(9.2) | 1(.7) | 0 | 25(16.3) | |
| LD (120) | 90(75) | 7(5.8) | 0 | 0 | 23(19.2) | |
| MIMD (81) | 43(53.1) | 5(6.2) | 1(1.2) | 1(1.2) | 31(38.3) | |
| MOMD (34) | 2(5.9) | 3(8.8) | 0 | 0 | 29(85.3) | |
| SPD (0) | 0 | 0 | 0 | 0 | 0 | |
| OHI (22) | 13(59.1) | 2(9.1) | 0 | 0 | 6(27.3) | |
| SLI (13) | 8(61.5) | 0 | 0 | 0 | 5(38.5) | |
| VI (0) | 0 | 0 | 0 | 0 | 0 | |
| HI (1) | 0 | 0 | 0 | 0 | 1(100) | |
| Living Situation/Family Status | | | | | | 18.52(NS) |
| Both Parents (69) | 47(68.1) | 3(4.3) | 0 | 0 | 19(27.5) | |
| Foster Family (23) | 14(60.9) | 2(8.7) | 0 | 0 | 7(30.4) | |
| Grandparents (30) | 21(70) | 3(10) | 0 | 0 | 6(20) | |
| Home of Friend (4) | 3(75) | 0 | 0 | 0 | 1(25) | |
| Home of Other | 22(71) | 0 | 0 | 0 | 9(29) | |
| Relative (31) | | | | | | |
| Independent (3) | 2(66.7) | 1(33.3) | 0 | 0 | 0 | |
| Single Parent (282) | 208(73.8) | 21(7.4) | 2(.7) | 0 | 51(18.1) | |

* $p < .05$. ** $p < .01$. *** $p < .001$.

determined to be unrestorable. About 3% of the youth spent some time in a psychiatric hospital, while 24% received services while being held in a secure detention setting or in an adult jail, often for relatively short periods of time before they were allowed to return home.

The full expanse of the various educational interventions were used with the majority of the youth (398 of 563 youth), although some did not receive specific educational interventions primarily because of their significant cognitive deficits. Of those youth who were taught using the various educational tools, almost two-thirds to three-quarters were restored to

competence. Medication management was used with 26% of the youth, but 30% of this group was not ultimately restored to competence. An additional 16% were provided with other mental health interventions and 8% with various kinds of in-home services.

Table 3 summarizes the outcome of the restoration services for all 563 youth. As indicated, when the evaluator opined that the youth possessed the basic abilities necessary for competence to stand trial, the court affirmed this finding 100 percent of the time. However, when the evaluator opined that the youth was unrestorably incompetent,

TABLE 2
Location and Service Delivery Parameters of the Restoration Process

| Variable (N) | Restored (%) (%) N = 405 | Not Restored (%) (%) N = 156 | χ^2 |
|----------------------------------|-----------------------------|---------------------------------|----------|
| Days of Authorized Services | | | 24.52*** |
| Less than 30 days | 5 (.1) | 6 (1) | |
| 31 to 60 days | 64 (11) | 12 (2) | |
| 61 to 90 days | 142 (25) | 53 (9) | |
| 91 to 120 days | 85 (15) | 21 (4) | |
| 121 to 150 days | 37 (7) | 17 (3) | |
| 151 to 180 days | 29 (5) | 12 (2) | |
| Greater than 180 | 43 (8) | 35 (6) | |
| Any psychiatric hospital days | | | 2.41 |
| Yes (27) | 16 (3) | 11 (2) | |
| No (536) | 391 (69) | 145 (26) | |
| Any detention/secure time | | | .33 |
| Yes | 95 (17) | 40 (7) | |
| No | 312 (55) | 116 (21) | |
| Number of restoration sessions | | | 11.38* |
| 1-30 | 129 (23) | 38 (7) | |
| 31-60 | 104 (19) | 27 (5) | |
| Greater than 61 | 70 (13) | 36 (6) | |
| Education restoration techniques | | | |
| Intervention I (398) | 298 (53) | 100 (18) | 4.52* |
| Intervention II (338) | 250 (44) | 88 (16) | 1.18 |
| Intervention III (366) | 278 (49) | 88 (16) | 7.01* |
| Case management techniques | | | |
| Medication mgmt. (147) | 103 (18) | 44 (8) | .49 |
| Home services (45) | 29 (5) | 16 (3) | 1.5 |
| Mental retardation services (4) | 1 (0) | 3 (1) | .4 |
| Mental health services (92) | 68 (12) | 24 (4) | .14 |
| Substance abuse services (7) | 6 (.1) | 1 (.0) | .64 |
| Hospitalization (27) | 16 (3) | 11 (2) | 2.41 |
| Residential therapy (33) | 17 (3) | 16 (3) | 7.55* |

* $p < .05$. ** $p < .01$. *** $p < .001$.

TABLE 3
Evaluation and Legal Outcome Following Restoration Services

| Variable (df) | Restorable (%) (%) N = 407 | Unrestorable (%) (%) N = 156 | χ^2 | CC |
|----------------------------------|-------------------------------|---------------------------------|----------|---------|
| Judge Finding | | | | |
| Competent to stand trial | 407 (72.3) | 0 (0) | 563.0 | .754*** |
| Dismissed | 0 | 38 (6.7) | | |
| Incompetent to stand trial | 0 | 3 (.5) | | |
| Unknown | 0 | 1 (.2) | | |
| Unrestorably incompetent | 0 | 114 (20.2) | | |
| Provided Recommendation to Court | | | 470.70 | .675*** |
| Competent to stand trial | 398 (7.7) | 12 (2.1) | | |
| Incompetent to stand trial | 6 (1.1) | 26 (4.6) | | |
| Dismissed | 0 | 5 (.9) | | |
| Unrestorably incompetent | 2 (.4) | 113 (20.1) | | |

* $p < .05$. ** $p < .01$. *** $p < .001$.

the court affirmed this particular outcome only 73% of the time. The most common alternative to a formal finding of un-restorably incompetent was dismissal of the charges which occurred with 24% of the un-restorable youth. The courts may have chosen dismissal of the charges, rather than making a formal finding of un-restorably incompetent, simply because they have not been provided a model court order for such a finding.

Multivariate Analyses

To explore the interaction of factors that contributed to an overall outcome of restoration we first constructed a decision tree that included all the youth in our sample. We then examined the best fit classification trees within each of our four diagnostic groups: MI only, MR only, MI and MR, and NMI and NMR. In these analyses we included all of the individual variables including age, minority status, gender, living situation, type of criminal charge, placement in a secure setting, restoration-specific educational tools, case management services, school status, and psychiatric care. To explore these interactions we used Chi Square Automated Interaction Detector (CHAID), an analysis technique used to create decision trees using SPSS Answer Tree v. 3.1 (Hill & Lewicki, 2006; Monahan et al., 2001; Warren, Jackson, Loper, & Burnette, 2010). We chose this statistical approach based upon its use in developing conceptual models using data that are not positioned in earlier theories or bodies of research. CHAID can be conducted on either continuous or categorical data, though it groups continuous data into homogeneous categories. This method of analysis selects the best predictor variables using a statistic test (Chi square for categorical and F for continuous, $p < .05$ with Bonferroni adjustment) to act as the first node in the tree and repeats this process until a full tree is grown. We used a cross-validation method (which divides the sample into 10 folds and verifies the original risk model). This technique allowed us to compute a risk estimate as well as a cross-validated risk estimate that represents the average of all risk estimates across the various subsamples.

Entire Group CHAID

For the total sample analyses, we allowed a minimum of 15 cases per cell. As demonstrated in Figure 1, the model correctly classified roughly 81% of all cases and had a sensitivity rate of 96% and a specificity rate of 40%. False positives were six times more common than false negatives.

- **Node 0:** Of the overall sample, 407 juveniles (72 percent) were restorable. Juveniles who had a diagnosis of mental retardation (MR), either in conjunction with a mental illness or alone ($\chi^2 = 91.77$, $df = 1$, $p < .0001$), were less likely to be restored (49%) compared to those who did not have this diagnosis (87%).

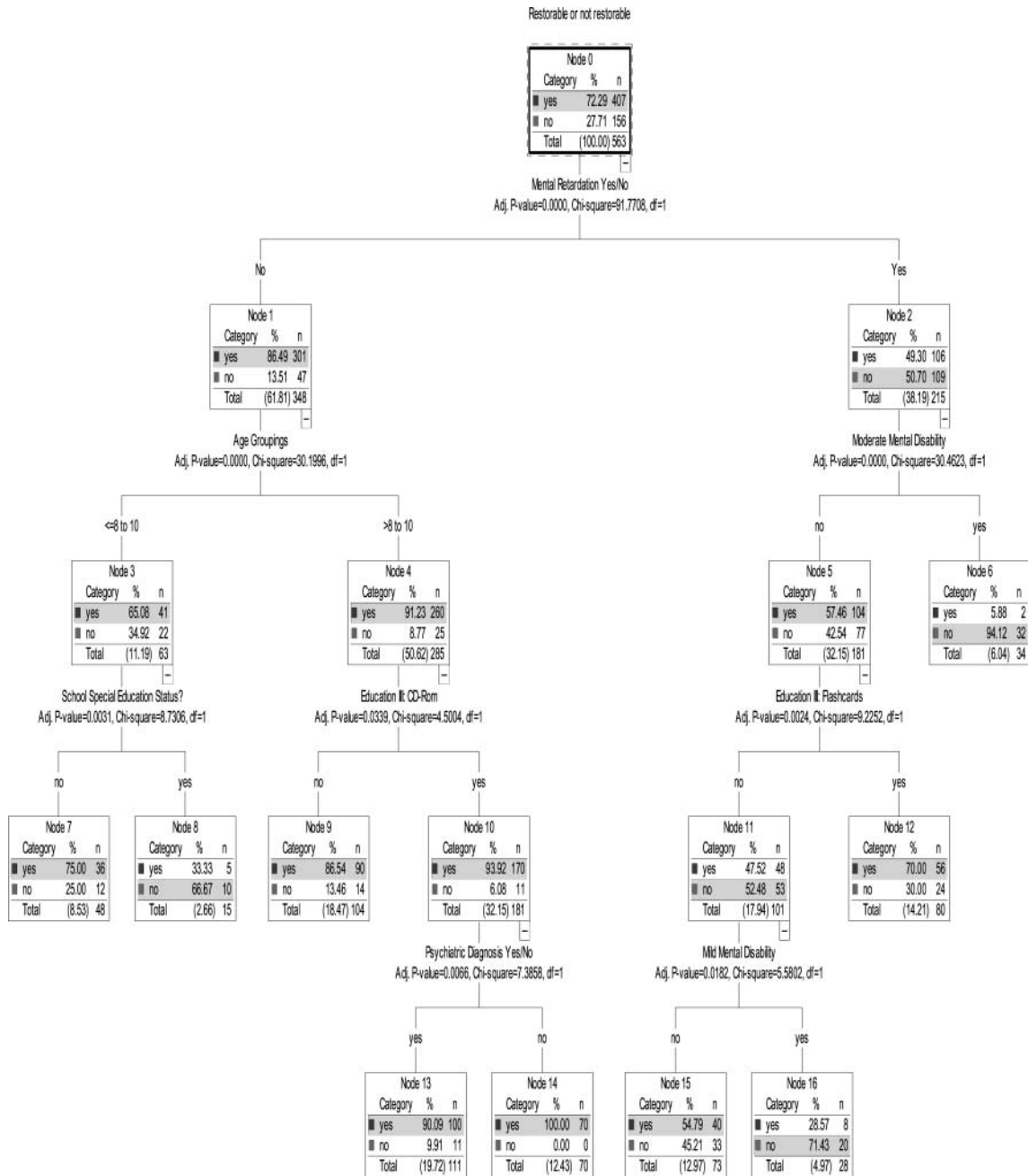


FIGURE 1 Decision tree of entire sample of 563 youth.

- **Node 1 (Without MR):** The first branch in this tree model diverged based upon the age of the youth, if they did not have a diagnosis of MR. Among those who did not have MR diagnoses, age was significant ($\chi^2 = 30.20$, $df = 1$, $p < .0001$). Specifically, those above age 10 were more likely to be restored (91%) compared to those between the ages of 8 to 10 (65%).
- **Nodes 3 & 4 (Age):** Among those under the age of 10, a special education status at school ($\chi^2 = 8.73$, $df = 1$, $p < .01$) was less likely to result in restoration (33%) than

not having this status (75%). Among those over the age of 10, using the CD-ROM restoration technique ($\chi^2 = 4.50$, $df = 1$, $p < .05$) resulted in greater restorability (93%) compared to those that did not receive this specific intervention (87%).

- **Node 10 (CD-ROM-Yes):** Lastly, among those that received the CD-ROM restoration technique, not having any mental illness ($\chi^2 = 7.39$, $df = 1$, $p < .01$) resulted in greater restorability (100%) compared to those that had a mental illness (90%).

- **Node 2 (With MR):** The second primary demarcation occurred with the youth who carried a MR diagnosis. For those with MR, having at least a moderate mental disability was significant ($\chi^2 = 30.46, df = 1, p < .0001$). Only two individuals (6%) with this level of disability were restored, compared to 104 (57%) of those restored without this level of disability.
- **Node 5 (No MIMOD):** For those that did not have a moderate mental disability, the use of flashcards ($\chi^2 = 9.23, df = 1, p < .01$) was helpful in restoring competency (70%). Those that did not receive flashcards as a restoration technique were less likely to be restored within this group (47%).
- **Node 11 (No Flashcards):** For those that did not receive flashcards as an intervention, mild mental disability emerged as significant predictor ($\chi^2 = 5.58, df = 1, p < .05$). Specifically, 29% of those with mild mental disability were restored, compared to 55% without this level of disability.

Mentally Ill Only Group

For the MI only group, we allowed a minimum of five cases per cell. This decision tree is represented in Figure 2. The

model correctly classified roughly 87% of all cases and had a sensitivity rate of 98% and a specificity rate of 28%. False positives were more common than false negatives.

- **Node 0:** Of the MI only juveniles, 189 (84%) were restorable, leaving only 36 (16%) not restorable. As such, these results should be viewed with caution given the low base rate of non-restorable juveniles. Age was significant ($\chi^2 = 23.18, df = 1, p < .001$); those above age 10 were more likely to be restored than those between the ages of 8 to 10 (89% versus 58%).
- **Node 1 (Age less than 10 years):** For juveniles between the ages of 8 and 10, special education status at school was significant ($\chi^2 = 7.82, df = 1, p < .001$). Specifically, those that were of special education status were less likely to be restored (29%) compared to those that did not have this status (75%).

Mentally Retarded Only

For the MR only group, we allowed a minimum five cases per cell. This decision tree is represented in Figure 3. The model correctly classified roughly 83% of all cases and had

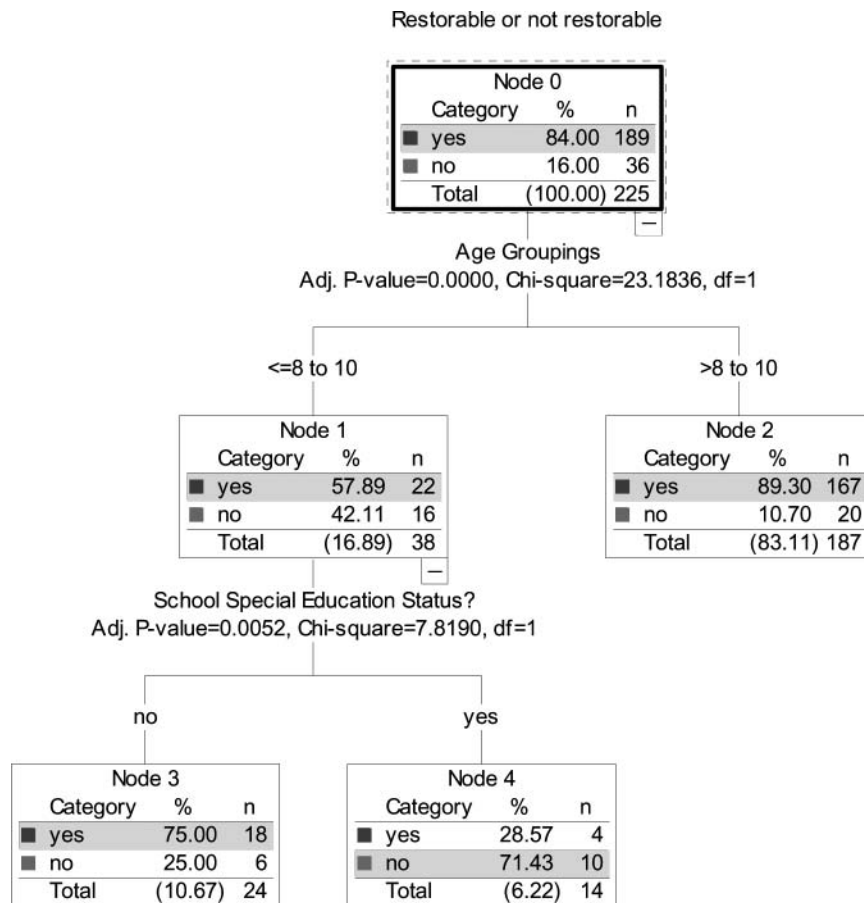
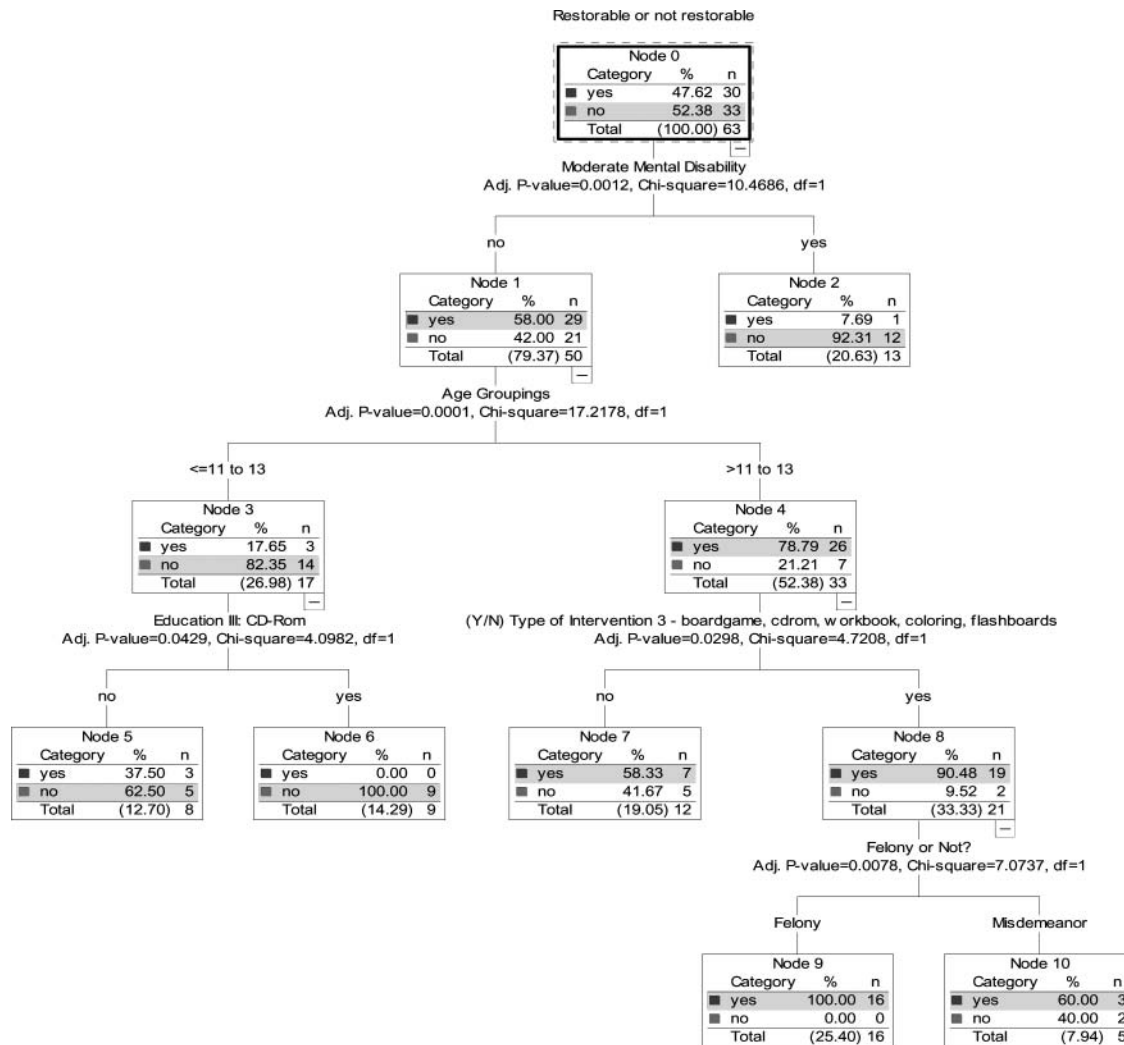


FIGURE 2 Decision tree for juveniles with a diagnosis of mental illness only (N = 225).

FIGURE 3 Decision Tree for youth with mental retardation only ($N = 63$).

a sensitivity rate of 87% and a specificity rate of 79%. False positives were more common than false negatives.

- Node 0:** Of the juveniles with MR only, 30 (47%) were restorable, leaving 33 (53%) not restorable. Having at least moderate mental disability was significant ($\chi^2 = 10.47$, $df = 1$, $p < .01$). Those without moderate mental disability were more likely to be restored than those with at least moderate mental disability (58% versus 8%). Among juveniles without moderate mental disability, age was significant ($\chi^2 = 17.22$, $df = 1$, $p < .0001$). More specifically, juveniles younger than 13 were less likely to be restored (18%) compared to juveniles older than 13 (79%).
- Node 3 (Age less than 13 years):** For mentally retarded juveniles younger than or equal to age 13, the CD-ROM as a restoration technique was not effective ($\chi^2 = 4.10$, $df = 1$, $p < .05$). Those that did not receive this intervention

were more likely to be restored (38%) using other learning modalities than those that received this technique (0%).

- Node 4 (Age more than 13 years):** For juveniles, older than 13, type III interventions such as board games, CD-ROM, workbook/coloring book, and flashcards, were effective ($\chi^2 = 4.72$, $df = 1$, $p < .05$). Ninety percent of juveniles that received these different forms of interventions were restored, compared to 58% that did not receive these intervention techniques.
- Node 8 (Intervention III-Yes):** Lastly, for those that received type III interventions, the type of crime was significant ($\chi^2 = 7.07$, $df = 1$, $p < .01$). Juveniles who committed a felony (100%) were more likely to be restored than those who committed misdemeanors (60%).

Mental Illness and Mental Retardation

For the MI and MR group, allowed a minimum five cases per cell. This decision tree is represented in Figure 4. The model

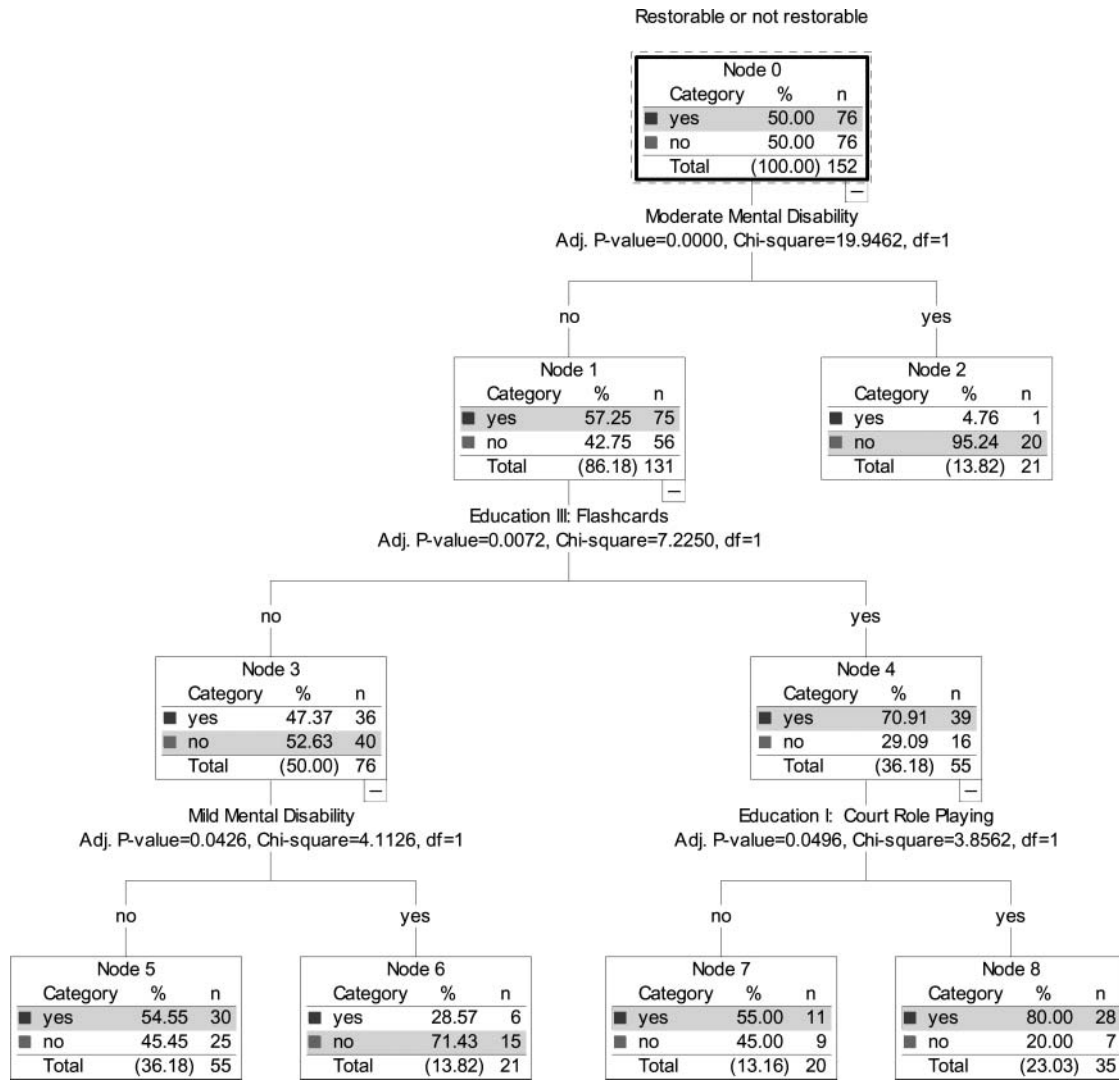


FIGURE 4 Decision tree for youth with mental illness and mental retardation (N = 152).

correctly classified 68% of all cases and had a sensitivity rate of 91% and a specificity rate of 46%. False positives were more common than false negatives.

- **Node 0:** Of the juveniles with MI and MR group, 76 (50%) were restorable. Having at least moderate mental disability was significant ($\chi^2 = 19.94, df = 1, p < .0001$); juveniles without moderate mental disability were more likely to be restored than those with this level of intellectual disability (57% versus 5%). Among juveniles without moderate mental disability, the use of flashcards was significant ($\chi^2 = 7.23, df = 1, p < .01$). Specifically, those that received this mode of intervention were more likely to be restored (71%) compared to those that did not (47%).
- **Node 3 (Flashcards-No):** Among the group that did not receive flashcards as an intervention, mild mental disability was significant ($\chi^2 = 4.11, df = 1, p < .05$). Those

with a mild mental disability were less likely to be restored (29%) than those without this status (55%).

- **Node 4 (Flashcards-Yes):** Among the group that did receive flashcards as an intervention, court role playing was also significant ($\chi^2 = 3.86, df = 1, p < .05$). Those that received this form of intervention were also more likely to be restored (80% versus 55%).

No Mental Illness and No Mental Retardation

For the NMI and NMR group, we allowed a minimum five cases per cell. This decision tree is represented in Figure 5. The model correctly classified roughly 93% of all cases and had a sensitivity rate of 97% and a specificity rate of 55%. False positives were more common than false negatives.

- **Node 0:** Of the juveniles without a mental illness or mental retardation, 123 (91%) were restorable, leaving

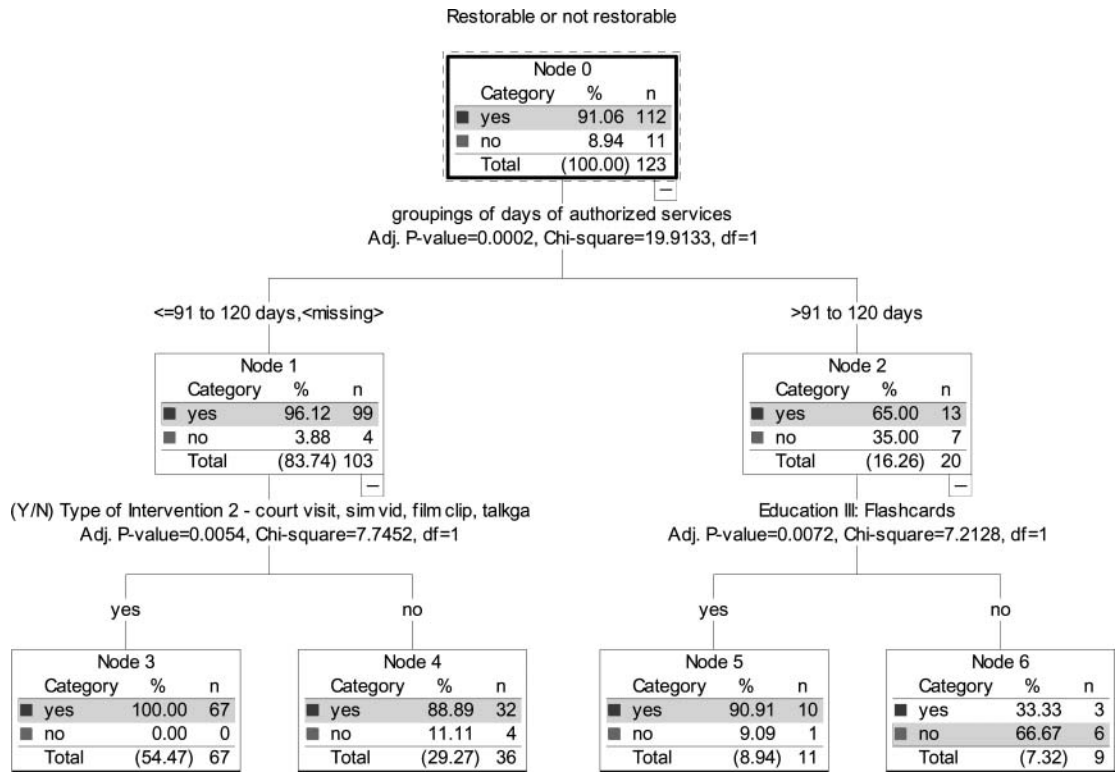


FIGURE 5 Decision tree for youth with no mental illness and no mental retardation (N = 123).

only 11 (9%) not restorable. As such, these results should be viewed with caution given the low base rate of non-restorable juveniles. Days of authorized services was significant ($\chi^2 = 19.91$, $df = 1$, $p < .0001$). Juveniles with less than 4 months of authorized services were more likely to be restored than those with more than 4 months (96% versus 65%).

- Nodes 1 and 2 (Authorized Services):** Among those who had less than 4 months of authorized services, the use of type II interventions including a visit to a real courtroom, the use of courtroom simulation video, and use of film clips involving the courtroom process, was significant ($\chi^2 = 7.74$, $df = 1$, $p < .01$). Specifically, those juveniles who received this mode of restoration services were more likely to be restored (100%) compared to those that did not receive this mode of restoration services (89%). On the other hand, among juveniles with more than 4 months of authorized services, the use of flashcards as an intervention was significant ($\chi^2 = 7.21$, $df = 1$, $p < .01$). Juveniles receiving flashcards as an intervention technique were more likely to be restored than those that did not receive this restoration technique (90% versus 33%).

DISCUSSION

Our data lend support to the premise that competency restoration services can be provided to youth in the community with

outcomes that are comparable to that of residential treatment for youth and for inpatient hospitalization for adults. These outcomes are achieved while maintaining each youth in the least restrictive alternative environment allowed by the court at a cost that is modest when compared to the cost of lengthy residential placement or commitment in high security inpatient treatment.

The outcome data collected on these 563 youth further suggest that the rate with which children and youth can be restored to competence is not substantially different from that encountered with adult defendants. In earlier research, we found that evaluating clinicians opined that an incompetent adult was likely to be restored to competence in over slightly half of the cases (Warren et al., 2006). Mossman (2007) similarly found that 75% of adults were restored to competence over an average of 24 days of inpatient treatment. The comparability of these outcome measures (albeit one that compares clinical opinions regarding future restorability with legal outcomes following restoration services) suggests that the developmental and maturity issues that are often focused upon in discussions of juvenile competence are not as insurmountable as previously thought. The Virginia experience suggests that many young juveniles can be remediated in their competence-related abilities if they are provided developmentally tailored educational processes provided in the context of a consistent relationship with trained restoration counselors who meet with youth multiple times a week and who coordinate all other competence-related services that

might be required by the youth and his/her family. However, when the youth suffers from mental retardation, at times combined with severe mental illness, the impact of the interventions is far more limited with one-half of the youth ultimately being found unrestorably incompetent. As with adults, most juveniles who suffer from a mental illness only can be restored to competence through the use of medication and other mental health services combined with educational learning and mentorship.

Our CHAID analyses proved useful in illustrating the different factors that combined to impact the restoration pathways among the entire group of 563 youth and for the four diagnostic subgroups: Mentally Ill Only, Mentally Retarded Only, Mentally Ill and Mentally Retarded, and No Mental Illness and No Mental Retardation. Clearly, the various CHAID analyses underscore the significance of a diagnosis of mental retardation, particularly when combined with young age and special education status. However, the analyses also demonstrated that service interventions—in particular the use of the narrative teaching tool, *Jamal in a Jam*, and coordinated flashcards—can be instrumental to the restoration process even among an impaired group of youth. A significant interaction was also found between mental illness and age. While youth with a psychiatric diagnosis who were over the age of ten years were restored to competence 89% of the time, only 58% of the youth aged ten and younger with a psychiatric diagnosis were restored to competence. This difference may reflect the developmental interaction of age and psychopathology and the combined impact of these two factors on competence-related abilities. Alternatively, it may reflect the more serious psychiatric diagnoses that are identified in youth under the age of ten years including the pervasive developmental disorders.

Our most vulnerable group was made up of youth who suffered from a combination of mental retardation and mental illness. Within this group of 152 youth (27% of the overall group) only 50% were restored to competence despite the full array of restoration services being provided to them. Many of these youth suffered from moderate levels of mental retardation and a significant proportion had been involved in crimes which involved other less-impaired juveniles. Society's ambivalence about what to do with these youth, particularly when they are charged with a serious crime, was hinted at in our analyses. The CHAID analyses indicated that having a felony versus a misdemeanor charge was predictive within this group of being successfully restored to competence. This finding is counterintuitive and suggests that some evaluators or courts may be more inclined to find a youth restored to competence when the risk is higher and there are greater consequences as to what might occur if these youth were released into the community unsupervised. This process may also be impacted by a submerged sense of unease if these youth are returned to the community unpunished. As a next step in the VJCP, we will be examining each of these cases in detail to determine if there is evidence of this type of bias and will

develop additional training and supervisory interventions to address it, if necessary.

In terms of service provision, the number of restoration sessions was initially found to be associated with the outcome of the restoration services. However, this effect disappeared in our logistic models when this variable was combined with the psychiatric and cognitive characteristics of the youth. The data did, nonetheless, suggest an optimal period of time during which the majority of youth were restored to adjudicative competence. Fifty percent of all youth who were restored to competence were restored within 60 to 120 days of service; only 20% of the youth were restored after longer periods of restoration. This finding suggests that most juveniles who can be restored will be restored within a three- to four-month period—if they are provided with the interventions that are age appropriate and offered by skilled juvenile competency restoration counselors.

The interventions we used in achieving these results were multifaceted and utilized intensive case coordination provided by an experienced restoration counselor and the use of interactive computer-based learning tools developed specifically for remediation or restoration purposes. The nature of the services that were provided to each youth were comprehensive and designed to address all problems that appeared to be serving as barriers to trial competence. These interventions were coordinated by the restoration counselor and included a combination of mental health services, medication management, educational testing, school consultation, family support services, medical examination, hearing and sight tests, social assistance and support for the family, and any other interventions that were necessary to allow the youth the opportunity to develop a rational understanding of the adjudicative process. These services were coordinated by the restoration counselor who traveled to the residence of the youth multiple times each week and who served as a support and guide to the youth consistently until the court made a final finding on the issue of adjudicative competence. Educational requirements for restoration counselors in Virginia require that these individuals have at least a BA degree and experience in working with children and adolescents. It is our impression that all three prongs of the restoration effort, i.e., a consistent and enduring relationship with an experienced and well-trained restoration counselor, the provision of intensive case management designed to address all barriers to competence, and the use of age-appropriate, competence-specific educational interventions were all essential to the process that culminated in the rates of restoration achieved with the youth in the Virginia Juvenile Competency Program.

The educational tools that are used by the VJCP emerged through a process of consultation and review with legal scholars, juvenile court attorneys, juvenile mental health specialists, special education teachers, animation artists, and documentary film directors with particular experience in programming for children and adolescents. The two generations of interactive CD-ROMs that have been completed are narrative

based and contain internal interactive exercises that query the youth about the legal content contained in each scene using only pictorially based response options. If a youth does not demonstrate understanding of the content and an ability to apply the information that has been presented, the program returns him or her to the part of the story in which the material was covered for further review. Our experience has demonstrated that youth of all ages become engaged with the characters in both the CD-ROMs and seek to offer their best advice and direction to each character as they navigate through the legal situation that is unfolding in response to their behavior.

In developing our various interventions, we were mindful of the need to not only provide enhancement to the youth's factual understanding but also to enrich their rational understanding of the concepts and the application of these concepts to their own situation. This element of rational understanding as articulated in the *Dusky* (1960) opinion quickly came to constitute the central challenge of our program. We found that intelligence was a core factor in determining the outcome of this process and that relatively young offenders could be assisted in gaining these requisite skills if their learning was guided by methods appropriate to their age and level of cognitive development. However, we also found that these tools had to be accompanied by the thoughtful guidance, coordinated intervention, and sustained reinforcement by trained restoration counselors who were clinically experienced in working with children and personally committed to maintaining the integrity of the VJCP restoration process.

In our efforts to create a restoration process which could eventuate in a rational understanding of the adjudicative process, we crafted special series of learning tools that were narrative based and which allowed youth to apply the legal concepts not only to our protagonists in each series but also to their own situation under the guidance of the restoration counselor. For example, *DJ and Alicia* leads each youth through a compelling story that addresses all key aspects of adjudicative learning. As each major concept is presented in the story, there is a pause during which each child is queried about what has happened to the two protagonists and what the legal significance of the experience is to them. If the response to the interactive exercise indicates that the youth has not understood the key concept of a particular section, the restoration counselor may opt to review the narrative section with the juvenile again. In addition, the VJCP has developed alternate educational tools which the restoration counselor may use to reinforce each of the constructs addressed in the educational series. Once the youth demonstrates the ability to understand each concept theoretically, and as it applies to the characters in the story, the restoration counselor gradually begins to guide the youth through the exploration of the ways in which the various legal concepts apply to the youth in their particular situation. This process is repeated many times over the course of the restoration process and is reinforced by the use of flashcards and games with the same charac-

ters and images and continues two or three times a week until the youth demonstrates enough understanding to suggest that the remediation has been successful or that they are likely to be unrestorable for the foreseeable future. Once the restoration counselor develops an opinion concerning either of these outcomes, an independent evaluator is contacted and asked to conduct an evaluation of the youth's current level of adjudicative competence. This opinion is submitted to the courts.

We are convinced that this iterative and interactive process could not be achieved in a group setting. The different types of offenses compounded by the diverse obstacles impairing each youth's competence-related abilities would undermine the effectiveness of a single intervention offered in a group context. The vulnerability of youth to various kinds of peer influence compounded by learning and attentional problems would also detract from the focus that is required to present and understand the concepts as they apply individually to each youth. Perhaps most importantly, we believe that the trust that develops between the youth and the restoration counselor is crucial to the explorations that take place concerning the crime. Contrary to the philosophy that underlies the VJCP, the use of group interventions also requires that youth be moved away from their families and schools prior to an adjudication of guilt and often when there are no concerns about the risk they pose to the community.

In developing the VJCP, many quality assurance mechanisms were embedded in the program to ensure that no youth remained in restoration services longer than was necessary and/or that no decisions made by the restoration counselors were biased based upon the relationship they had developed with a particular child. The final opinions concerning the outcome of the restoration services are offered to the courts by independent evaluators, all of whom have successfully completed six days of juvenile basic training at the University of Virginia. In the majority of cases, the independent evaluators are not involved in the original competence evaluation and play no role in supervising the restoration providers during the remediation process (this practice standard is occasionally modified in rural areas where a lack of trained personnel made this type of independent practice impossible to achieve or maintain). Each restoration counselor is also supervised on a monthly basis by a restoration supervisor who reviews all cases and assesses with the restoration counselor the progress and problems that continue to characterize each restoration process. These quality assurance mechanisms have been helpful in addressing two biases that we sought to contain or eradicate. Not surprisingly, we encountered instances in which restoration counselors became invested in a child and were reticent to report the child as having been restored to competence knowing that this would result in their transfer to criminal court and trial for serious charges, at times involving murder. We also perceived the need to monitor the financial incentive which might prompt community restoration counselors who are paid by the session to hold a

child in the restoration process longer than was necessary to achieve trial competence.

Through the development of our program, we anecdotally found the principle of autonomous decision making more difficult to interpret and apply in instances involving very young defendants. The least impaired youth demonstrated a thoughtful willingness to be guided and informed by more experienced adults and did not demonstrate any wish to exclude the ideas and reflections that were offered to them by others. This willingness did not appear to reflect a relinquishing of personal autonomy, but rather an informed sense of being guided by adults with more experience and insight into the serious circumstances facing the individual child. Our interpretation was echoed by attorneys who have had extensive experience working with children in juvenile court and who candidly admit to establishing a different kind of relationship when representing young children with little guidance from parents and other caretakers in their lives. These observations, however, were tempered by the somber experience of seeing many juveniles who were only marginally older and yet who were being transferred to adult court where their sentences were at times more severe than that of adults charged with comparable crimes. These issues surrounding decisional capacity in young children is reflected in the suggestion made by Bonnie and Grisso (2000) that a basic understanding of the purpose of the proceeding and an ability to communicate with counsel may be sufficient for adjudicative competence in juveniles under the age of transfer given the more protective confines of the juvenile court.

In reflecting on these outcome data, we would like to underscore that 74% of the youth who were court ordered into restoration services had been charged with a felony offense. Without juvenile competence legislation, most if not all of these youth would have proceeded through an adjudicatory process without the requisite understanding of the court process or its outcome. Based upon a felony-like conviction, these youth were at risk for being committed to the Virginia Department of Juvenile Justice for up to seven years and having these charges used as part of sentencing enhancement schemes when they reach adulthood. Concerning these possibilities we concur with Justice Fortas who fifty years ago observed, "there may be grounds for concerns that the child receives the worst of both worlds; he gets neither the protections afforded adults nor the solicitous care and regenerative treatment postulated for children" (*Kent v. United States*, 1966). It is our opinion that juvenile competence legislation is the primary way in which the fundamental rights embedded in the U.S. Constitution can be provided to youth being adjudicated in juvenile court and perhaps the most concrete means by which their legal status as children can be protected and reviewed prior to their maturation into adulthood.

In closing, we would like to point out the weaknesses of our study and outline the direction we would recommend for future research. Our study reflects data collected over a seven-year period. During this time, the VJCP was evol-

ing its philosophy and structure, its staff was creating and teaching for the first time the nature of the restoration process, and the interactive tools and teaching aids were being developed by animators and programmers with no prior experience in juvenile competence or the court process. While this created an exciting time of experimentation and learning, it also reflected a time of change. This suggests that the data collected in earlier years need not necessarily reflect the same type of intervention as those used in later years and the outcome of these efforts might be influenced not only by the characteristics of the youth but by the simultaneous evolution of expertise among the restoration counselors. Our interactive teaching tools have also kept up with technology and now encapsulate animation possibilities and interactive exchanges that were not possible when the project began. The mix of interventions used with each youth also varied by the problems they were experiencing, their age, and the natural inclinations of each restoration counselor. While this does not allow us to describe the interventions in a static manner, we believe it reflected a creative response that resulted in the restoration of many youth as confirmed by the restoration counselor, the independent evaluator, and ultimately the court.

Given the progress that has been made in developing the VJCP, we believe that it can now be translated into new settings with a high level of fidelity. Ideally, this process of replication will involve states with different juvenile competence statutes and case law, more varied ethnic populations, and organizational structures that vary in the context but not the content or the quality of the services that would be offered to youth. This type of replication would have significance not only to juvenile competence but also adult competency restoration and might signify an important step towards the development of community-based options for defendants of all ages. Only through this type of replication will we be able to move toward an evidence-based practice for providing restoration services to the most impaired youth who come in contact with juvenile justice systems across the nation. The creation of a web-accessible case management database which tracks youth, services, and restoration outcomes will also constitute an important first step in the construction of the feedback loop encouraged by Gawande (2009) in the synergistic reform of the larger mental health and healthcare systems.

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