

Mild Intellectual Disabilities: Legacies and Trends in Concepts and Educational Practices

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Abstract: Intellectual disability has been considered a high incidence disability in special education since the inception of the field in the United States. The purpose of this article is to evaluate current educational programs and practices for students who historically and commonly have been referred to as having mild mental retardation. The article examines mild intellectual disabilities within the context of historical trends, current developments, and future directions in terminology, definition, prevalence, educational environments, and transitional services. Recommendations for educational practices and future research directions are discussed.

The field of mild intellectual disabilities (ID) has provided a foundation for the broader field of special education. A significant amount of the initial research and program development done in the field was concerned with individuals who were labeled at the upper end of the mental retardation or intellectual disabilities spectrum. Further, many of the leaders who shaped the field of special education initiated their work in this area (Polloway, 2000).

Forty-two years ago, Dunn (1968) published his seminal work challenging educational practices for this population. He focused his attention on the practices that had enabled a segregated service delivery system to develop in which students with intellectual disabilities were educated in isolation from their peers in general education. In addition to drawing attention to practices related to individuals termed at that time *educable mentally retarded*, his article also served as the touching off point for subsequent discussions of mainstreaming, the least restrictive environment, and ultimately school inclusion.

Fifteen years after the publication of the

Dunn (1968) article, Polloway and Smith (1983) further assessed the state of the field by addressing considerations related to population, programs, and perspectives. In their article, these authors relied on federal data that provided a national perspective on the prevalence of intellectual disabilities within public schools, and served as a basis for an examination of placement and educational programs.

Since Polloway and Smith (1983) presented their analysis of the field, significant changes have occurred. This period of time has seen the implementation of numerous educational initiatives impacting students with disabilities in general, such as those related to: the development of inclusive classroom settings; the creation of a multi-tiered intervention model for reconsidering education for all students; the emphasis on providing access to the general education curriculum; and the tenets of No Child Left Behind and successive reauthorizations of the Individuals with Disabilities Education Act (IDEA). Nevertheless, in spite of these advances and initiatives impacting special education in general, Tymchuk, Lakin, and Luckasson's (2001) use of the term "the forgotten generation" continues to have merit for considering in particular the population of individuals who have mild intellectual disabilities.

The purpose of this article is to assess cer-

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tain aspects of educational programs and practices for students with mild ID. The paper focuses on terminology, definition, prevalence, school placement, transition and school exit patterns by providing an historical basis, an analysis of current data, and a discussion of the implications for specific future patterns. The article relies in part on federal data that address questions related to the prevalence of individuals served within categorical programs, the educational environments in which services are delivered, and several key transitional concerns including exit from school and/or from special education. In doing so, we use population data for 'mental retardation' in order to generalize about specific trends and practices related to 'mild mental retardation'. Because of the use of the generic "mental retardation" in certain databases, we endeavor to separate out when possible the population of individuals considered mildly intellectually disabled from this broader population. We conclude with a general discussion of recommendations for educational practice and further research.

Terminology and Definition

Historical Considerations

For over 50 years, the most frequently used term to refer to individuals with intellectual disabilities was mental retardation. This term reflected widespread and long-term use in the wake of the elimination of the labels of feeble-mindedness, moron, imbecile, and idiot (Polloway & Lubin, 2009). Sandieson (1998) reported in his survey that, of the 66 terms found in the international literature of the field, mental retardation was the most frequently used. Despite the negative connotation associated with the term, it was the most widely used descriptor among educators and parents as well as researchers in the field. For example, Denning, Chamberlain, and Polloway (2000) reported that 26 state departments of education continued to use the term mental retardation.

Some of the terms that have been used to refer to individuals with ID have caused some confusion. In the United Kingdom, "learning disabilities" is the term of choice for mental retardation. This same term was promoted by

Dunn (1973) as well when he proposed terminology that used these designations: *general* learning disabilities (referring to intellectual disabilities) and *specific* learning disabilities (referring to those to whom are referred to in the U.S. as having a learning disability). This system never became widely accepted in the United States due in large part to the prolific growth of the field of learning disabilities and the widespread use of this term in its more specific application.

A related consideration has to do with the definitions used in the field and their implications for people with mild retardation. (See Greenspan & Switzky, 2006, for a comprehensive discussion of the evolution of terminology and definitions). In the Denning et al. study (2000), 44 states reported using the definition from the American Association on Mental Retardation (AAMR) (Grossman, 1983) while 4 states used the adapted version of that definition from the AAMR manual. The AAMR 1992 manual (Luckasson et al., 1992) had not significantly impacted the state guidelines in general. Many states still were using the definition of mental retardation in the regulations of the Individuals with Disabilities Education Act (IDEA) that was generally derived from Grossman (1983) and did not make modifications, reflective of changes in the field, as recommended by the AAMR.

Current Data

Polloway, Patton, Smith, Antoine, and Lubin (2009) replicated the studies of Frankengerger (1984) and Denning and colleagues (2000) concerning state terminology and definitions. These researchers reported that 27 states use the term mental retardation, which actually represented a slight increase from the Denning et al. (2000) study. Bergeron, Floyd, and Shands (2008) confirmed those findings as they reported that the term mental retardation was used by 53% of the states. Thus, while the professional field of intellectual disabilities continues to explore terminology and definitional changes in the field, it is apparent that the implementation of these changes varies dramatically across the states. Some of the other terms used by states, as reported by Polloway et al., included: cognitively disabled,

cognitively impaired, intellectually disabled, intellectually impaired, and mentally disabled.

Smith (2006) noted that “the 2002 AAMR manual authors acknowledge the problems with the term mental retardation but concluded that there was no acceptable alternative term, despite its technical shortcomings” (p. 58). However, since 2002, the term intellectual disabilities is being used much more often professionally in the field (previously internationally and now to a greater extent in the United States). Nevertheless, according to Polloway et al. (2009), it had not yet taken root in state departments of education guidelines and was the accepted term in only four states.

In terms of definition, Polloway et al. (2009) noted that 34 states continued to depend on the Grossman (1983) mental retardation definition. In its stead, they noted evidence of increased use of the most recent AAMR (now the American Association on Intellectual and Developmental Disabilities, AAIDD) definition (Luckasson et al., 2002) as well as alternative definitional approaches. They further reported that in terms of the intellectual assessment component of the definition, 34 states required a cut-off score or range; most commonly, the ceiling level for mental retardation was stated as either approximately IQ 70 or two standard deviations below the mean. Bergeron et al. (2008) substantiated that fact as they noted that “the majority of states use IQ cutoff at least two SDs below the normative mean” (p. 125).

In the second key definitional domain, adaptive behavior (AB), Polloway et al. (2009) reported that all states noted that they required assessment in this area. Twenty-three states highlighted that specific AB practices were to be followed. In terms of developmental period, 33 states (64.7%) did not specify any specific ceiling age for the developmental period although few students are initially identified as mentally retarded later in their school years.

Future Patterns

The use of the term “intellectual disabilities” to describe the population—whether school-age or adult—to whom the profession typically referred as having “mental retardation” is

clearly increasing (Schalock et al., 2007). This change is reflected in organizational names (AAIDD), journal titles (e.g., *Intellectual and Developmental Disabilities*), and professional book titles. Although some governmental agencies are moving slowly to change terminology (i.e., terms used in state education codes), the professional community is embracing this term at a quick pace.

MacMillan, Siperstein, and Leffert (2006) underscored the need for a new term and supported the use of intellectual disability when they stated:

the precipitous decline in the application of the term mental retardation in school settings is, to a significant extent, attributable to its pejorative connotation. . . . if mental retardation is to serve as a unifying concept that includes [mild mental retardation], a new term needs to be adopted that is less stigmatizing and more palatable to educators, parents, and the individuals themselves. In our view, a term such as intellectual disability, which is increasingly becoming a standard term outside the United States, cognitive impairment, or general learning disability would be more acceptable (p. 215).

Changes in terminology can impact on a number of areas. In school settings, such a name change may not be as important as how it is defined and which criteria are used to determine eligibility. However, term change may very well have important implications for individuals within the context of non-school settings, such as in the legal arena. In this domain, being diagnosed as having “mental retardation” is just beginning to be understood to some degree, particularly in the light of the attention given to this diagnostic label in the wake of the Supreme Court decision in the Daryl Atkins death penalty case (see Patton & Keyes, 2006). Changing terminology will undoubtedly create some confusion and consternation in the criminal justice system. The name change could also have an impact on other adult service areas (e.g., Social Security eligibility) until such time as state codes are revised to reflect the use of intellectual disability. Finally, as Polloway and Lubin (2009) have noted, terminology continues to evolve, as the term feeble-minded gave way to

the concept “mental retardation”, which then yielded to “intellectual disabilities”.

School Prevalence

Historical Considerations

For many years a common observation was that approximately 3% of the school population would likely be identified as mentally retarded (MacMillan, 2007). While this figure was often cited, and became a basis for public policy initiatives and governmental support, this prevalence rate was not generally confirmed in research. Rather, the best historical predictor of national prevalence in the 1960s and 1970s was closer to 2%.

With the advent of the annual reports to Congress on the Individuals with Disabilities Education Act, a national database was established, which has subsequently provided a foundation for tracking prevalence trends in the public schools. Of particular note is that, subsequent to the passage of the Education for All Handicapped Children Act in 1975, there was a steady and significant decline for about 20 years in the number of individuals identified as mentally retarded. These data indicated that neither the 3% nor the 2% figures were accurate portrayals of the school population and rather the actual numbers were substantially lower. This impact resulted primarily from decreases in the number of individuals who earlier would have been considered to have mild intellectual disabilities.

Polloway and Smith (1983) discussed the diminishing number of individuals who were being identified as mentally retarded and stressed that further changes were likely to occur regarding those individuals identified with mild ID. Specific considerations and hypotheses included changes in definitional standards (e.g., increased emphasis on adaptive behavior), the impact of key litigation on minority over-representation within this population (especially in court cases in California), professional reluctance to use the label “mentally retarded,” and the possible beneficial effects of early intervention programs on prevention.

Current Data

The 27th Annual Report to Congress on the Education of Individuals with Disabilities Ed-

ucation Act (USDOE, 2007) provides a database for determining current practices on both a national level as well as an analysis at the individual state level. While the data are always delayed in publication for several years (for example, the 2007 document includes data from the 2003–04 academic year), this document nevertheless provides a comprehensive foundation for analyzing data trends within and across years.

Table 1 provides percentage data on prevalence figures for the overall population, ages 6–21, across disability categories. These trend data provide a 10-year perspective on special education. As can be noted in the table, the national figures for mental retardation (as rounded within the table) have shown virtually no variance on an annual basis during this timeframe and consistently reflect a trend that slightly less than one in a hundred school-age children nationally might be identified as mentally retarded. Further, the data reveal that four times as many school-age individuals are identified as having a learning disability. Nevertheless, by comparison with other disability areas, one would still conclude that ID remains a high incidence disability.

The most compelling finding related to prevalence in the field of intellectual disabilities is the significant variance across states. A total of 13 states report prevalence rates in excess of 1.2%, including two states that report prevalence figures above 2% (West Virginia: 2.47% and Wyoming: 2.25). On the other hand, there are 19 states that report prevalence rates that are below 0.6%; these include New Jersey, New Hampshire, and Maine, each of which report a prevalence figure of 0.34% (USDOE, 2007).

For the states that report high prevalence figures, it might be concluded that the population being served is not dissimilar to that which was commonly identified 30 or more years ago under the label mental retardation, and would likely include a sizable number of individuals with mild disabilities. On the other hand, for those states who reported serving approximately 0.4% or less of their population, it could probably be concluded that this population, so identified, would include only individuals with more significant disabilities, given the fact that this prevalence figure is commonly cited in epidemiology studies as

TABLE 1

Percentage of the Population Ages 6 Through 21 Receiving Special Education and Related Services, by Disability Category: Fall 1993 Through Fall 2003

| | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
|--------------------------------|---------|------|------|------|------|------|------|------|------|------|------|
| Disability | Percent | | | | | | | | | | |
| Specific learning disabilities | 4.1 | 4.2 | 4.3 | 4.3 | 4.4 | 4.4 | 4.4 | 4.4 | 4.3 | 4.3 | 4.3 |
| Speech or language impairments | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.6 | 1.7 | 1.7 |
| Mental retardation | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 |
| Emotional disturbance | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 |
| Multiple Disabilities | 0.2 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Other health impairments | 0.1 | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 | 0.5 | 0.6 | 0.7 |
| Autism | ◆ | ◆ | ◆ | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 |
| Developmental delay | | | | | ◆ | ◆ | ◆ | ◆ | 0.1 | 0.1 | 0.1 |
| All disabilities | 8.1 | 8.2 | 8.4 | 8.5 | 8.5 | 8.6 | 8.7 | 8.7 | 8.8 | 8.9 | 9.1 |

Source: Adapted from U.S. Department of Education. (2007). *27th Report to Congress on the implementation of IDEA* (p. 31). Washington, DC: Author.

the most likely predictor of the number of persons with severe disabilities within a given population (e.g., Abramowicz & Richardson, 1975; MacMillan, 2007). It remains an important question to determine if states with lower prevalence rates are serving any students that might be considered mildly intellectually disabled under this category, if these individuals receive no special education services, or if they are simply labeled differently, therefore skewing federal report data.

The data on ID can be placed in broader context by also considering individuals identified as “developmentally delayed”—a categorical designation under IDEA that states may choose to use for students between 3 and 9 years of age. Although the state variance for this category is again noteworthy (California and New Jersey, for example, reported no school-age individuals so identified while a significant number of states report in excess of 0.20), it is instructive to note that the number of individuals identified nationally as developmentally delayed, ages 6–9, increased dramatically between 1997 and 2003. Figure 1 provides a graphic representation of this increase to above a prevalence rate of 0.40 (USDOE, 2007). It is reasonable to consider that some of the children identified as developmentally delayed will meet the identification criteria for intellectual disability once the age of nine is

reached and the term developmental delay is no longer acceptable for usage under IDEA.

One interesting data set that speaks to the question of prevalence is the US Department of Education (2007) summary of the percentage of elementary students who are declassified from special education. Providing data from 1999–2002, this federal report indicated that only 2% of students identified as mentally retarded were declassified during this period, compared with 9% for learning

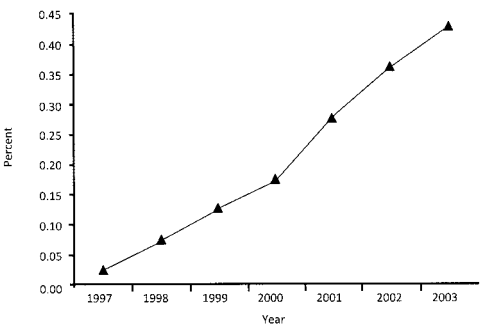


Figure 1. Percentage of children ages 6 through 9 receiving special education and related services due to developmental delay: Fall 1997 through fall 2003. Source: US Department of Education (2007). *27th Report to Congress on the implementation of IDEA* (p. 39). Washington, DC: Author.

disabilities and 10% for emotional disturbance. Based only on these data, it might be cautiously concluded that once the label of mental retardation (or intellectual disabilities) is given, it is more likely to continue to be applied, no doubt influenced in part because of the presence of those with more significant disabilities within this category.

Future Patterns

The implications of trends in terms of the prevalence of intellectual disabilities within the schools, as well as an extrapolation of the likely trends in terms of mild ID, suggest that this category will not increase in numbers. Rather, ten years of consistent data represent a strong case for the fact that the number of students identified will remain relatively static. Based on the assumption that approximately 0.4% of individuals in a given population may be identified as having severe or significant disabilities, it seems reasonable to conclude that approximately 0.5% of the school population nationwide could be identified as mildly intellectually disabled. Again, the variance across states would lead one to continue to assume that for some states with low prevalence rates virtually no individuals would be so identified while in other states approximately 1.5–2.0% would likely be considered mildly intellectually disabled. The use of the category “developmentally delayed” may continue to increase in usage, as it provides a less stigmatizing way to describe individuals who may demonstrate delays such as in cognitive and linguistic functioning.

Educational Environments/Placement

Historical Considerations

The historical image of special education in the 1960s and 1970s was often based on the profile of programs for students with intellectual disabilities. Much of the attention given to special education and school placement reflected the common finding that the majority of these students were in self-contained special education classrooms and spent limited time in integrated settings with peers who were non-disabled (Polloway, 1984). These perceptions were consistent with the reports

by Dunn (1968) and Polloway and Smith (1983) who confirmed that such placements were most often the reality in the schools.

Two major types of classes were commonly found in schools throughout the nation in the 1960s and most of the 1970s: classes for students considered to be educable mentally retarded (EMR)—i.e., mild intellectual disabilities—and for those considered to be trainable mentally retarded (TMR)—i.e., moderate-severe intellectual disabilities. The so-called efficacy studies of the 1950s and 1960s sought to research the relative effectiveness of self-contained vs. inclusive school environments for the former population; the research can best be summarized as equivocal because of the numerous confounds within the research methodology as well as the question of determining what should be studied as the key indicators of effectiveness (Stanton & Cassidy, 1964).

Current Data

In spite of the fact that the trend toward increased inclusion in schools has moved forward for three decades, the data on inclusion of students with intellectual disabilities (USDOE, 2007) indicate that placement of those students into programs *outside* of general education is still predominant, both on a national level and in most states. Table 2 presents data on selected categories of disabilities per the relative amount of time spent outside of general education settings. As can be noted in the table, mental retardation (11.7%) is substantially lower than most other disabilities in terms of the likelihood of being placed within general education for more than 21% of the school day. In other words, this group was in more segregated settings for 88.3% of the time. It must be noted of course that the “mental retardation” category also includes a large number of individuals who have more significant challenges in addition to those with mild ID, thus likely biasing the data toward more restrictive settings.

The data are most significant when compared to data for students across all disabilities, students with specific learning disabilities and for those with emotional disturbance (see Table 2). These federal data indicate that a total of 58.3% of students with intellectual

TABLE 2

Percentage of Students Ages 6 Through 21 With Disabilities Receiving Special Education and Related Services in Different Environments, by Disability Category: Fall 2003

| Disabilities | Time outside the regular class | | | Separate environments |
|--------------------------------|--------------------------------|-----------------------------|----------------------------|-----------------------|
| | < 21 percent Of the day | 21–60 percent Of the day | > 60 percent Of the day | |
| | Percent | | | |
| Specific learning disabilities | 48.8 | 37.3 | 13.0 | 0.9 |
| Speech/language impairments | 88.2 | 6.8 | 4.6 | 0.4 |
| Mental retardation | 11.7 | 30.2 | 51.8 | 6.3 |
| Emotional disturbance | 30.3 | 22.6 | 30.2 | 16.9 |
| Multiple disabilities | 12.1 | 17.2 | 45.8 | 24.9 |
| Other health impairments | 51.1 | 30.5 | 15.0 | 3.5 |
| Autism | 26.8 | 17.7 | 43.9 | 11.6 |
| Developmental delay | 51.2 | 28.2 | 18.6 | 2.0 |
| All disabilities | 49.9 | 27.7 | 18.5 | 3.9 |

Source: Adapted from U.S. Department of Education. (2007). *27th Report to Congress on the implementation of IDEA* (p. 46). Washington, DC: Author.

disabilities are in environments that are removed from the general education classroom at least 60% of the day (51.8%) or are in separate environments such as special day schools and residential programs (6.3%). Placed in a broader context of time, Williamson, McLeskey, Hoppey, and Lenz (2006) noted that placement of this group of students in general education-based programs increased from 27.3% to 44.7% in the 1990s but that this increase essentially reached a plateau after 1997–1998. The data from the USDOE (2007) essentially confirm this plateau effect for students with intellectual disabilities (i.e. 11.7% outside the general education classroom less than 21% of the day plus 30.2% outside for 21–60% of time, for a total of 41.9%). Smith (2007) noted that the percentage of students with intellectual disabilities served in the most inclusive setting (i.e., <21% outside of regular class) declined between 1997–98 and 2002–03 in 34 states.

As with prevalence data, the data on educational environments reflect a high degree of interstate variation. Thus, for example, the state of Vermont reports that 59.1% of students with mental retardation are served in general education classes greater than 79% of the day while data for Utah indicates that only

2.55% of students are so placed (USDOE, 2007).

When considering the interaction of prevalence rates and educational placements, it is intuitively attractive to presume that states with low prevalence rates are very likely serving a population that is more significantly disabled and that consequently one would expect to find that those students are more likely to be educated in more restricted settings. In a parallel sense, it might also be assumed that states serving a larger percentage of students under the label intellectual disabilities are likely to be educating more individuals with mild disabilities and consequently may be more likely to provide services in general education-based settings. However, the US Department of Education (2007) data reflect the fact that there is significant variance in the utilization of general education-based educational environments by states, in a number of cases irrespective of state prevalence figures. For example, Utah reflects what might be considered to be a common pattern in that it serves a very low prevalence of individuals with ID (0.48%) and educates only 2.55% of these students in general education-based programs more than 79% of the time. The other predicted pattern is seen in several

high prevalence states emphasizing general education-based programs. This is illustrated by Iowa and Kentucky with high prevalence rates of individuals served with intellectual disabilities (1.80; 1.98) educating 35.9% and 26.3%, respectively, of these students in the most inclusive programs.

On the other hand, several states reflect different and perhaps less expected patterns. For example, Vermont reports a prevalence of 0.90 for intellectual disabilities (that is, at the national average) while serving 59.11% of these students in general education for 79% or more of the school day, a figure that is more than five times greater than the national average. The District of Columbia, with a relatively high prevalence rate of 1.63, reports that only 2.58% of the students are served in general education programs (greater than 79% of the time). In these two examples, there is on the one hand a strong commitment in Vermont to the apparent inclusion of students with more significant disabilities in general education in juxtaposition to DC, which would appear to identify more students with mild disabilities and to serve them more often in pull-out programs.

Future Patterns

The national data indicate that a plateau was essentially reached in late 1990s in terms of the trend toward increased inclusion of students with mental retardation. Data through the 2003–04 academic year confirmed that approximately 42% of students with intellectual disabilities were being served in general education programs, inclusive of those individuals who were outside of the regular classroom less than 20% of the time as well as those outside between 21–60% of the time. Nevertheless, the continuing increased emphasis on inclusion and access to the general curriculum may yet be reflected in subsequent federal reports.

Any trend toward inclusion is inescapably linked to how well the general education setting is prepared to handle students who will require differentiated strategies in terms of content, instructional materials, instruction, assignments, testing, products, setting, and management (Hoover & Patton, 2005, 2008). In a multi-tiered model of providing interven-

tion that also has implications for eligibility determination, the need for general education teachers to be equipped to address the needs of a wide range of students, including those with mild intellectual disabilities, is imperative. Thus, efforts continue to provide skills to general education teachers to differentiate instruction and implement educational programs supported by collaborative arrangements with special educators and other school-based personnel.

Schools that operate within a multi-tiered system also are creating a change of roles for special education personnel as well (Hoover & Patton, 2008). Teachers who have responsibility for individuals with mild intellectual disabilities must become more than primarily responsible for direct instruction in pull-out programs and rather also must be expected to work collaboratively in preventive efforts typically associated with Tier I instruction (enhanced instructional delivery in general education programs) as well as supportive efforts often associated with Tier II instruction (ongoing collaboration in general education programs).

At the same time, a number of issues remain in terms of ensuring that educational practices result in quality programs for students with ID. Bouck (2007) has used the term “lost in translation” to refer to the challenges faced by teachers in addressing federal laws while constructing effective programs for this population that “promote the greatest academic and social experiences for each individual student” (p. 85). Wehmeyer (2006) provided a blueprint for considering effective inclusive efforts by identifying aspects consistent with a universal design for learning approach to making general education classrooms more responsive to the learning needs of this group of students.

There also remains the question of the contributions of relevant and contemporary research to educational programs for students with mild intellectual disabilities. Several individuals (e.g. Polloway, 2005; Bouck, 2007) have highlighted the relative absence of recent research on educational interventions for this population. While changes have been occurring over the last 20 years in the students who are being identified as intellectually disabled, the field has not received the level of attention

that has been accorded to other areas of exceptionality (e.g., learning disabilities, severe/significant disabilities, autism, emotional and behavioral disorders). As a consequence, many of the judgments about this group have been generalized from much older research or research done with other populations (most commonly, students with learning disabilities). In this regard, it is worth considering the recommendations of the President's Committee for People with Intellectual Disabilities (2007) who indicated that an important aspect of policy in the future would be: "strengthening information bridges from the Federal Government to state and local departments of education, schools, teachers, and parents by providing current, research-based strategies and best practices related to students with intellectual disabilities" (p. 14).

School Exit Patterns and Transition

Historical Considerations

If there is one group that has benefited from activities related to transition planning and services for the longest period of time, it is students with mild intellectual disabilities. Work-study programs have been recommended for, and implemented with, this group since the 1950s and concerns about what would occur when school ended were on the minds of secondary-level staff well before the onset of more formal transition planning requirements and services in the 1980s. In Kolstoe and Frey's (1965) description of high school work-study programs, it is clear that recognition of the importance to future outcomes was given not only to job performance skills but also to academic, personal, and social skills.

Over the years, most students with mild intellectual disabilities stayed in school through to the completion of high school, although frequently they left without a high school diploma, receiving a certificate of some type (i.e., attendance, completion of program). Some of these students remained until they "aged-out" at 22 or later, dependent on state guidelines (Edgar, 1987, 1988).

A series of critical events have had an impact on the transition services for students with intellectual disabilities. The first was the

funding provided in 1984 by the federal government of projects that focused on transition of youth with disabilities. The second was the reauthorization of IDEA in 1990 when transition services were mandated for all students who were receiving special education services. Subsequent reauthorizations of IDEA have modified some of the elements of transition services; however, the main intent has endured.

Current Data

Two key sources of data provide a contemporary perspective on the nature of the transition process for students with mental retardation. The first source is USDOE (2007) previously cited in this paper while the other is the National Longitudinal Transition Study-2 (NLTS-2) (Wagner, Newman, Cameto, Garza, & Levine, 2005). This latter resource is the second study that has been conducted to follow up after school with students who were previously receiving special education. The NLTS-2 report provides the most comprehensive picture of what happens to students after high school.

In Table 3, we present federal data on student dropout rates across areas of disability that provide a 10-year retrospective. As can be noted, the dropout rates for mental retardation (or intellectual disabilities) are generally consistent but show somewhat of a decline, to 28.6%. These numbers are comparable to data for learning disabilities and emotional disturbance although twice the rate for students with autism. By any interpretation, it is clear that a substantial number of students are not completing school as defined within the federal data base.

Complementary data reflect graduation rates with a regular diploma (see Table 4). As can be noted, only 36.9% of the individuals with mental retardation (or intellectual disabilities) receive regular diplomas; those numbers have been generally stable with only a small increase noted since 1993-94. Across this 10-year period, students identified as having intellectual disabilities were consistently less likely to graduate than were students with learning disabilities, speech and language impairments, other health impairments, autism, and notably multiple disabili-

TABLE 3

Students Ages 14 and Older With Disabilities Who Dropped Out of School: 1993–94

| | 1993– 94 | 1994– 95 | 1995– 96 | 1996– 97 | 1997– 98 | 1998– 99 | 1999– 2000 | 2000– 01 | 2001– 02 | 2002– 03 |
|--------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------|-------------|-------------|-------------|
| Disability | Percent | | | | | | | | | |
| Specific learning disabilities | 43.1 | 44.7 | 44.4 | 43.4 | 41.3 | 40.2 | 39.9 | 38.6 | 35.4 | 31.6 |
| Speech/language impairments | 49.3 | 51.4 | 50.4 | 48.0 | 44.5 | 40.9 | 39.4 | 39.3 | 35.8 | 31.2 |
| Mental retardation | 35.4 | 37.9 | 38.0 | 38.2 | 36.3 | 34.9 | 35.7 | 34.2 | 31.2 | 28.6 |
| Emotional disturbance | 67.8 | 69.2 | 69.9 | 69.2 | 67.2 | 65.5 | 65.2 | 64.9 | 61.2 | 55.92 |
| Multiple disabilities | 24.6 | 35.1 | 27.4 | 27.7 | 26.3 | 28.1 | 25.8 | 26.7 | 25.9 | 24.2 |
| Other health impairments | 37.4 | 38.1 | 36.8 | 37.8 | 34.9 | 36.3 | 35.1 | 36.1 | 32.7 | 29.5 |
| Autism | 25.9 | 29.5 | 23.8 | 24.0 | 19.2 | 22.8 | 23.7 | 20.6 | 17.6 | 15.5 |
| All disabilities | 45.1 | 47 | 46.8 | 45.9 | 43.7 | 42.3 | 42.1 | 40.9 | 37.6 | 33.6 |

Source: Adapted from U.S. Department of Education. (2007). *27th Report to Congress on the implementation of IDEA* (p. 52). Washington, DC: Author.

ties. Only students with emotional disturbance were less likely to graduate among these selected categories of exceptionality.

The federal data on school exit patterns are not easily interpreted because of the multiple categories reflected in possible school exit. Therefore, individuals who are intellectually

disabled are also represented significantly in the population of those who do not complete diplomas but complete school through some alternative means of school exit (such as through receipt of a certificate) as well as those who age out of school. In addition, the federal data include the category “moved, not

TABLE 4

Students Ages 14 and Older With Disabilities Who Graduated With a Regular Diploma: 1993–94^a Through 2002–03

| | 1993– 94 | 1994– 95 | 1995– 96 | 1996– 97 | 1997– 98 | 1998– 99 | 1999– 2000 | 2000– 01 | 2001– 02 | 2002– 03 |
|--------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------|-------------|-------------|-------------|
| Disability | Percent | | | | | | | | | |
| Specific learning disabilities | 49.1 | 47.7 | 48.2 | 48.8 | 51.0 | 51.9 | 51.6 | 53.7 | 56.9 | 57.4 |
| Speech/language impairments | 42.9 | 41.7 | 42.2 | 44.8 | 48.1 | 51.2 | 53.2 | 52.7 | 55.7 | 59.2 |
| Mental retardation | 35.0 | 33.8 | 34.0 | 33.0 | 34.3 | 36.0 | 34.4 | 35.0 | 37.8 | 36.9 |
| Emotional disturbance | 27.0 | 26.0 | 25.1 | 25.9 | 27.4 | 29.2 | 28.6 | 29.1 | 32.1 | 35.4 |
| Multiple disabilities | 36.1 | 31.4 | 35.3 | 35.4 | 39.0 | 41.0 | 42.3 | 41.5 | 45.2 | 45.3 |
| Other health impairments | 54.6 | 52.6 | 53.0 | 53.1 | 56.8 | 55.0 | 56.5 | 56.2 | 59.2 | 59.0 |
| Autism | 33.4 | 35.3 | 36.4 | 35.9 | 38.7 | 40.5 | 40.8 | 42.0 | 51.1 | 50.5 |
| All disabilities | 43.5 | 42.1 | 42.4 | 43.0 | 45.3 | 46.5 | 46.1 | 47.7 | 51.1 | 51.9 |

Source: Adapted from U.S. Department of Education. (2007). *27th Report to Congress on the implementation of IDEA* (p. 51). Washington, DC: Author.

TABLE 5

Summary of NLTS-2 Findings: Students with Intellectual Disabilities

| Area | Findings |
|---|---|
| Transition Services | <ul style="list-style-type: none">• Many students (60%) had transition planning begun by age 14• 48.7% of the students did not provide input in discussing their transition plans• Very few individuals (3.3%) took a leadership role during the transition process• General educators' involvement in transition process was minimal• Few individuals (9.8%) chose postsecondary education as a transition goal• 51.4% of the students chose living independently as a transition goal• 75.8% received instruction specifically focused on transition-related topics• The school program provided for most students (79.5%) was identified as "very or fairly well suited" for preparing them to achieve their transition goals |
| Outcomes Area: | Percentage |
| Postsecondary School Enrollment: | |
| ○ any postsecondary school | 15.4 |
| ○ postsecondary vocational, business, or technical school | 11.0 |
| ○ 2-year/community college | 5.1 |
| Current Employment | 24.8 |
| Living Arrangements | |
| ○ with parents | 72.2 |
| ○ on own, with spouse, roommate, or in college dorm | 16.3 |
| Post-school Independence: Have a . . . | |
| ○ driver's license/permit | 20.7 |
| ○ checking account | 10.1 |
| ○ charge account or credit card | 6.9 |
| Leisure Time: | |
| ○ watching TV/videos | 41.0 |
| ○ using a computer | 13.5 |
| ○ listening to music | 18.7 |
| ○ doing hobbies, reading for pleasure | 4.7 |
| ○ talking on the phone with friends | 9.2 |
| ○ playing sports | 16.3 |
| Friendship Interactions: in past year, | |
| saw friends outside of school or work at least weekly | 46.3 |
| ○ percentage communicating by computer at least daily | 21.9 |
| Participation in Community Activities: in the past year, took part in . . . | |
| ○ community group (e.g. sports team, club, religious group) | 23.8 |
| volunteer or community service activity | 22.7 |

Source: Wagner, M., Newman, L., Cameto, R., Garza, N., & Levine, P. (2005). *After high school: A first look at the post-school experiences of youth with disabilities: A report from the National Longitudinal Transition Study-2 (NLTS-2)*. Menlo Park, CA: SRI International.

known to continue”, certainly suggestive of school dropout.

The NLTS-2 report (Wagner et al., 2005) provides an extended picture of the transition process for students with ID. Wagner et al. gathered data at different points in time from students, parents/guardians, and school personnel. Table 5 summarizes some of the major

findings of the study in relation to students with intellectual disabilities (referred to as having mental retardation). It should again be noted that students classified as mentally retarded represent a range of students meeting the definition of “mental retardation,”

One area of the NLTS-2 (Wagner et al., 2005) that is of particular interest is parental

TABLE 6

Functional Skills of Out-of-School Youth, by Selected Disability Category

| | <i>Learning Disability</i> | <i>Mental Retardation</i> | <i>Emotional Disturbance</i> | <i>Autism</i> | <i>Multiple Disabilities</i> |
|--|--------------------------------|-------------------------------|----------------------------------|---------------|----------------------------------|
| Percentage rated by parents “high” on: | | | | | |
| Self-care skills | 98.5 | 84.2 | 97.5 | 66.0 | 56.3 |
| Functional cognitive skills | 80.4 | 42.3 | 83.6 | 72.2 | 44.5 |
| Percentage with social skills rated: | | | | | |
| High | 19.1 | 7.3 | 5.4 | 3.1 | 17.7 |
| Low | 17.4 | 26.0 | 45.8 | 28.1 | 25.9 |
| Percentage with health reported to be: | | | | | |
| Excellent | 41.2 | 30.4 | 36.0 | 47.0 | 27.3 |
| Fair or poor | 8.1 | 12.1 | 13.5 | 5.9 | 18.5 |

Source: Wagner, M., Newman, L., Cameto, R., Garza, N., & Levine, P. (2005). *After high school: A first look at the postschool experiences of youth with disabilities: A report from the National Longitudinal Transition Study-2 (NTLS-2)* (Exhibit 2-4). Menlo Park, CA: SRI International.

perception of their child’s functional skills. Table 6 lists these perceptions of parents across disability categories. The table provides a picture of five important areas: self-help skills, functional cognitive skills (e.g., making change), social skills, everyday communication, and health. From examining these data, it is evident that young adults with intellectual disabilities continue to face major challenges in dealing with the demands of everyday life in the community. Particularly notable are the fact that a relatively low percentage of individuals were rated “high” on functional cognitive skills that are essential to everyday life, few individuals were given a rating of “high” and a much larger number of individuals were rated “low” on social skills, and a sizable percentage were noted as experiencing difficulties in communicating effectively with others.

Current transition practices have resulted in a more systematic approach to assessing the needs of students. Increased attention also has been given to improving the self-determination skills of students with intellectual disabilities in recent years and instilling the value of student-centered planning. IDEA 2004 introduced the requirement that students be provided a summary of performance when they exit school. When used to advantage, this document has become a valuable resource for students and families as they take on the challenges of a postsecondary world. More programs are also being developed for

students with intellectual disabilities in post-secondary education, often as dual enrollment programs (Hart, Zimbrich, & Parker, 2005).

Future Patterns

The IDEA mandate for transition planning certainly is likely to continue to be emphasized in the future. The most important issue will be the quality of the transition services that students and their families receive. Wagner et al. (2005) highlighted these key areas related to transition:

- Identifying and implementing evidence-based transition practices
- Instituting techniques for starting the transition process earlier in a student’s school career, such as through a number of informal procedures
- Empowering students so that they are more involved in their transition process and are able to advocate for themselves when school is completed
- Increasing efforts to empower parents/guardians by providing them with critical information about the transition process and various aspects what to expect when school is finished for their sons and daughters
- Being vigilant to cultural and family values
- Increasing opportunities for students with intellectual disabilities in terms of further

education and training, especially in post-secondary institutions

As Katsiyannis, Zhang, Woodruff, and Dixon (2005) noted, research is needed “to examine the link between the transition process and specific post-school outcomes” (p. 115). Moreover, transition professionals need to validate many of the transition practices that are used in schools today and develop sound practices that school personnel can use effectively and efficiently.

Discussion

The purpose of this article has been to provide an analysis of trends related to the selected aspects of the education of students with intellectual disabilities, with a focus on mild disabilities. Certain summative observations appear warranted. First, there is a modest trend away from the term mental retardation and toward intellectual disabilities, which we anticipate will accelerate in the coming years. Second, there is inconsistent use of more recent definitions of mental retardation by state departments of education and a continued reliance on the 25 year old definition developed by Grossman and his colleagues (1983). If extrapolation can be made from Polloway et al. (2009), there does seem to be a limited trend toward the adoption of more contemporary definitions.

Third, there remains tremendous variance across states in terms of students identified as mentally retarded. In general, it can be concluded that a number of states appear to be serving virtually no students who might be considered mildly intellectually disabled (based on these prevalence data) while a number of other states serve a substantial percentage of their school population (1.5% or greater) under this label and therefore likely a substantial number of students with mild intellectual disabilities.

Fourth, there is also significant variance in terms of the educational environments in which these students are educated. The practices across states are widely variant in terms of the apparent commitment to inclusive vs. pull-out services for students with mild intellectual disabilities. Fifth, the data on school dropout rates, graduation rates, and adult outcomes

provide limited reason for confidence that these students are well-positioned for successful transition.

Beyond these summative statements, there are a number of issues that emerge directly and indirectly from the existing data on mild ID. First, a reading of trends in terms of state practices certainly underscores the fact that changes in the philosophies of professional organizations and resulting revisions in terminology and definitional manuals do not automatically result in rapid changes within state policies. Thus, there continues to be a significant gap between contemporary thinking within the field of intellectual disabilities and national and state legislation governing educational programs. As a consequence, it becomes difficult to assess the impact of such recommended changes on practices until a significant number of years have elapsed. Nevertheless, it can be posited that advocacy for such changes cannot be limited to professional organizational documents and rather must be accompanied by concerted efforts at the national and state level if changes are to occur. At the same time, it remains to be demonstrated if key changes, such as in terminology, will have a positive impact on the education and lives of students with mild intellectual disabilities.

A second consideration has to do with public school outcomes for individuals who have substantial learning challenges in the schools but are not identified within the population of 0.90% of students nationally identified as intellectual disabled. If we can accept the assumption that the additional perhaps 1% of the school population might have, at other times in history, been identified as mild ID, we might then conclude that there remain a substantial number of students who are likely to be what MacMillan and Borthwick (1980) once referred to as “marginal achievers” in the schools, including those that Shaw (2008) identified as “students with diverse learning needs” or “borderline intellectual functioning”. Advances in general education instructional strategies within inclusive settings will be critical for these students as well as those formally identified.

Third, the apparent plateau in the educational environments in which students with intellectual disabilities are being served should

cause professionals to look more carefully at the challenges associated with successful inclusive educational practices. While the higher incidence of learning disabilities has generated significant attention to such questions, there has been far less attention given to this unique population, and particularly to individuals with mild ID once they reach the secondary school level (Bouck, 2004, 2007). A key aspect of this resolution will be the effectiveness with which school programs are able to address the state standards consistent with the general education curriculum while also providing for functional instruction that prepares individuals for successful adult lives (Hoover & Patton, 2005).

Fourth, with graduation rates low for individuals with ID and with dropout rates relatively high, there remains need for an increased commitment to retention in school and successful completion. Benz, Lindstrom, and Yobanoff (2000) concluded that the key components that result in improved school outcomes (and, thus presumably, in enhanced adult outcomes) include direct support within general education programs, paid work experiences that relate to specific career interests, instruction in functional academic areas along with vocational education and related transition content, and the completion of transition goals that are consistent with student preferences and choices.

While persons with mild intellectual disabilities have been described as members of a “forgotten generation” (Tymchuk et al., 2001), they warrant the continued attention of educators. An emphasis on research related to this population and the further development of validated, successful educational practices remains paramount.

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