Introduction

Developmental disabilities are a group of related chronic disorders of early onset estimated to affect 5% to 10% of children **(Simeonsson and Sharp, 1992).**

Global developmental delay (GDD) is a subset of developmental disabilities defined as significant delay in two or more of the following developmental domains: gross/fine motor, speech/language, cognition, social/personal, and activities of daily living **(Fenichel, 2001 and Shevell, 2006).**

Global developmental delay describes a clinical presentation that has a heterogeneous etiologic profile and is associated with age-specific deficits in adaptation and learning skills (**Shevell et al ., 2003).**

The deficits are evident in comparison with the skills attainment of chronological peers. Significant delay is defined as performance two standard deviations or more below the mean on age-appropriate, standardized norm-referenced testing **(Yeargin et al .,1997).**

The term global developmental delay is usually reserved for younger children (i.e., typically less than 5 years of age), whereas the term mental retardation is usually applied to older children when IQ testing is more valid and reliable **(Fenichel, 2001).**

A child with the clinical picture of global developmental delay is not necessarily destined to be mentally retarded. Infants and children may have global developmental delay owing to conditions such as cerebral

palsy, certain neuromuscular disorders, and other conditions such as early environmental deprivation **(Shevell et al., 2003).**

When these children are old enough to measure cognitive level they do not score in the mentally retarded range. The diagnosis of mental retardation, according to the American Association of Mental Retardation and the Diagnostic and Statistical Manual of Mental Disorders, 4th ed., text revision, **(American Psychiatric Association, 2000)** requires accurate and valid assessment of intelligence, which is generally not possible in infants and young children, in addition to deficits in adaptive function. Available valid instruments for assessing intelligence (such as the Stanford-Binet or Wechsler Preschool Primary Scale of Intelligence) are not generally applicable under age 3 years **(Johnson and Goldman, 1990 and Luckasson et al., 1992).**

The precise prevalence of global developmental delay is unknown. Estimates of 1% to 3% of children younger than 5 years are reasonable given the prevalence of mental retardation in the general population **(Yeargin et al., 1997).**

Developmental surveillance is recognized as an integral component of pediatric care . Professional organizations dedicated to the medical care of children recommend routine monitoring of a child's developmental progress **(American Academy of Pediatrics, 2001)**.

Formal screening, together with reliance on parental reporting measures, constitutes the primary means by which children with global developmental delay are identified **(Dobos et al., 1994).**

In addition, children possessing either biologic or social risk factors for later developmental delay are often targeted through specific follow-

up programs that incorporate routine periodic assessments evaluating developmental performance **(Msall et al., 1998).**

Identification of a globally delayed young child by routine pediatric screening in the first years of life mandates a careful search for an underlying etiology **(Shevell , 1998).**

Estimates of the etiologic yield (10% to 81%) in children with global developmental delay and mental retardation are highly variable **(Battaglia et al ., 1999).**

The reported variability in diagnostic yield can be attributed to differences in a variety of factors including sample population characteristics, severity of delay in the children studied, extent of diagnostic investigations, and technological advances over time, especially with respect to genetic and neuroimaging techniques **(Shevell et al., 2003).**