The Price We Pay

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Social, emotional and behavioral difficulties are common among adolescents and are often accepted as a part of the rite of passage into adulthood. To some extent, emotional lability, depression, anxiety and rebellion characterize the "drama" that is a normal part of adolescent development and transition to the adult world. For most children, emotional turmoil is temporary and poses only a momentary disruption to daily functioning; but, for many children, emotional and behavioral disorders are not transitory. The result is a growing crisis in mental health among our nation's youth.

Over the last decade, estimates of the prevalence of severe mental health disorders in children has doubled. In 2002, Friedman estimated that 10% to 13% of children between the ages of 9 to 17 experience a significant mental health disorder. Recent estimates, however, reveal that before a child reaches the age of 18, 46% of young people experience a mental health disorder and one in five children experience a severe emotional or behavioral health disorder that results in substantial to extreme impairment in any given year (Angold, Erkanli et.al., 2002; Center for Disease Control, 2013; Kessler, Berglund et al. 2005; Merikangas, He, & Brody et.al., 2010; Merikangas, He, & Burstein et al. 2010; National Research Council and Institute of Medicine, 2009; World Health Organization, 2011). The cause of most mental health problems are rooted in a complex interaction between genetic predispositions and intense or persistent stress-inducing environmental experiences that occur early in a child's development (National Scientific Council on the Developing Child, 2008).

Early life exposure to traumatic experiences has a direct impact on physical and mental health problems throughout the course of life. Childhood experiences of abuse, neglect, or toxic stress often co-occur and leave an imprint on the developing brain resulting in neurological damage that changes the way in which the brain processes information and regulates emotional states (Kaufman, Plotsky, Nemeroff, & Charney, 2000; Perry, 1997; Putnam, 2006). It is not surprising, then, that 50% of all children in the child welfare system have mental health needs (Burns, et al., 2004).

The interrelated nature of toxic adverse experiences was examined in the Adverse Childhood Experiences (ACE) study (Anda, et al., 1996; Felitti, et al., 1998). The ACE study was conducted with over 17,000 adults and examined the extent to which participants experienced various forms of maltreatment prior to the age of 18.

Ten key indicators were identified that are highly predictive of mental health and physical health problems throughout the lifespan. The indicators were scored as either "yes" or "no" and addressed psychological, physical, or sexual abuse, physical or emotional neglect, as well as sources of toxic stress in the child's environment such as alcohol or substance abuse, loss of a parent, maternal depression or mental illness, exposure to parental violence and imprisonment of...
a family member. Two-thirds of the respondents reported having experienced at least one adverse experience and one in six reported an ACE score of four or more.

The ACE study demonstrated that the experience of early trauma and environmental stress is highly predictive of physical social, emotional and behavioral health issues throughout life. For example, fifty percent of respondents with an ACE score of four or higher reported learning or behavioral problems in school compared with just 3% of those with an ACE score of zero. Sixty-six percent of women with an ACE score greater than three reported suffering from chronic depression--five times greater than the rate of depression among those with an ACE of zero.

Compared with an ACE score of 0, individuals with an ACE score of 4 or more are 13 times more likely to be removed from their home; 12 times more likely to attempt suicide; 7 times more likely to suffer from alcoholism and 5 times more likely to use illicit drugs. The ACE study made it clear that experiences of trauma are pervasive throughout the child's life and that children do not "outgrow" their early traumatic experiences.

Developmental delays that result from maltreatment become evident very early in a child's school experience. Wiggins, Fenichel, & Mann, (2007) found that compared to children raised in safe and supportive homes, children who had been maltreated were four to five times more likely to demonstrate delays in cognitive development, speech and language development, and motor development as well as mental health and physical health problems. These delays show up as a limited ability to learn, attention deficits, and a variety of challenging behavior problems that include severe temper tantrums, episodes of rage, aggression, or internalized behavior disorders such as withdrawal, or depression. Left untreated, these behaviors increase in intensity as the child gets older and develop into social anxiety disorders, or violent and aggressive behaviors in adolescence.

This pattern of increasing intensity and severity of behaviors that lead up to debilitating mental health disorders is reflected in research that shows that half of all chronic adult mental health cases emerge by age 14 and three-fourths are identified by age 24 (Kessler, Berglund et al. 2005). Males, in particular, who exhibit defiant and oppositional behavior at an early age, are particularly at risk, as one in seventeen continue down a tragic life-course that intensifies into violence and maladaptive social behavior in adolescence (Moffitt, Caspi, Dickson, Silva & Stanton, 1996; Nagin & Tremblay, 1999).

Fortunately, however, research also indicates that severe behavior patterns are evident very early in a child’s development and if identified early on, there is hope for successful intervention. Campbell (1995) estimated that 10% to 15% of preschool children exhibit chronic mild to moderate levels of behavior problems and among children of poverty, this prevalence rate is estimated to be twice as high (Qi and Kaiser, 2003). Egger and Angold (2006) identified that 20% of children between the ages of two to five, were identified with one or more mental health diagnoses in the previous three month period. Similarly, Lavigne et al. (1996) found that 21% of
preschoolers met diagnostic criteria for a mental health disorder with nearly half of those designated as severe. The severity of these behavior problems is of such significance that preschool children are three times more likely to be expelled than children in elementary and secondary schools (Gilliam, 2005). In spite of the severity and prevalence of these behaviors, however, only 2%-3% of children 3-5 years old receive mental health services (Kataoka, Zhang & Wells, 2002).

In the absence of meaningful intervention, challenging behaviors continue to persist as the child enters school. One out of every ten children entering kindergarten demonstrates intense, pervasive behaviors (West, Denton, & Germino-Hausken, 2000). Children who are identified as hard to manage at ages 3 and 4 have a 50% chance of continuing to have difficulties into adolescence (Campbell and Ewing, 1990; Campbell, 1991; Campbell, 1995; Campbell, 1997; Egeland, Kalkoske, Gottesman, & Erickson, 1990; Lavigne et al., 1998; Shaw, Gilliom & Giovannelli, 2000). In fact, so persistent is an early pattern of aggression that the correlation between preschool-age aggression and aggression at age 10 is higher than that for IQ (Kazdin, 1995) and Dodge (1993) noted that when aggressive and antisocial behavior has persisted to age nine, further intervention has a poor chance of success. This is particularly troubling given that early appearing aggressive behaviors are the best predictor of juvenile gang membership and violence (Reid, 1993).

Left untreated, mental health problems manifest themselves in poor educational outcomes such as inconsistent school attendance, behavior problems and academic difficulties (DeSocio & Hootman, 2004; Puskar & Bernardo, 2007; Repie, 2005; Ringeisen, Henderson, & Hoagwood, 2003). Compared with the general population, children identified with emotional disturbance are more likely to use alcohol (54%), illegal drugs (36%), marijuana (33%) and to smoke cigarettes (53%) (Yu, Huang & Newman, 2008). In addition, 73% report having been suspended or expelled from school (Facts from NLTS2, 2006).

Confronted with pervasive behavior problems and struggling academic performance, more than 44% of children with emotional disturbance drop out of grades 9-12 (Facts from NLTS2, 2005). Within 4 years of leaving high school, 60% report being arrested at least once and 39% are on probation or parole (Newman, Wagner, Cameto, & Knokey, 2009).

The comorbidity between mental health disorders and participation in the juvenile justice system is significant. Studies have shown that among youth in the juvenile justice system, 67% to 70% have a diagnosable mental health disorder (Skowyra & Cocozza, 2006). Moreover, due to the lack of availability of appropriate mental health treatment in the community, a national survey of juvenile detention facilities in the United States found that it is not uncommon for youth to be held in detention without any pending criminal charges. The estimated cost of housing youth with mental health disorders for extended periods of time in juvenile detention facilities while awaiting community mental health treatment is estimated to be $100 million annually (Committee on Government Reform, Special Investigations Division, Minority Staff, 2004).
There is overwhelming evidence of the adverse impact that untreated trauma has on emotional regulation and school performance (Elder, Van Nguyen & Caspi, 1985; Sroufe, L., 2005). Yet faculty in higher education early childhood programs report that their graduates are least likely to be prepared to work with children with persistently challenging behaviors (Hemmeter, Santos, & Ostrosky, 2004). Moreover, effective mental health services are still unavailable in most schools (Franklin, 2001; Franklin & Hopson, 2004; Walker, 2004). As a result, only two out of every ten children with the most significant mental health disorders receive the mental health services that they need suggesting that about 7.5 million children with significant mental health disorders remain untreated throughout their school experience (Kataoka, Zhang, and Wells, 2002; Weissberg, 2000).

Considering the cost of health care, special education services, juvenile justice and lost productivity, it has been estimated that the annual cost of mental health disorders among individuals under the age of 24 in the United States is $247 billion (National Research Council and Institute of Medicine, 2009; Eisenberg & Neighbors, 2007; Kogan et al., 2008). Given this expense and the current economic climate, it will be difficult to focus national debate on expanding the availability of mental health services to meet the needs of all children with mental health disorders amid rising concerns about the growing costs of health care.

Policy makers, as stewards of public tax dollars, are concerned whether the costs of expanding mental health services to meet the needs of all children can be justified by the potential savings associated with changing the trajectory of a child through early intervention. In addressing this issue, Cohen (1998) examines the costs associated with high risk youth (crime, school drop-out, and drug abuse) and calculates the monetary value of preventing a child from following this life course. Taking into account the duplication and overlap that often occurs between school drop-out, drug use and criminal behavior, Cohen estimates the lifetime value of saving one high-risk youth to be $2.47 to $3.35 million (in 2015 dollars).

Of the 7.5 million children in the United States who never receive the mental health treatment that they need, statistical prevalence rates predict that 3.3 million will not complete high school, 2.7 million will use illegal drugs, and 1.7 million will be incarcerated within 4 years of leaving high school. There are evidence-based strategies that are effective in changing this trajectory (Raines, 2008; Hoagwood et al., 2007; Stephan, Weist, Katoka, Adelsheim & Mills, 2007) but professional responsibility must be taken to overcome the categorical barriers that hinder access to the interventions that each child needs (Powell, 2015).

The critical question then becomes, how many children must be diverted from this path in order to justify the expense of comprehensive mental health services? Utilizing data from the National Health Expenditure Accounts for 2009-2011, Davis (2014) calculates that the annual average expenditure for mental health treatment for school-age children is $2,310 (in 2015 dollars). Prescription medications account for 44% of total costs and nearly half of the total expenditures of $11.5 billion (in 2015 dollars) were paid by Medicaid.
Successful intervention with only one child per thousand will pay for comprehensive services. The average annual cost of mental health treatment for a child between the ages 5-17 is so small ($2,310) compared to the lifetime benefit of successful mental health treatment ($2.47 million), that if a single child out of 1,069 is redeemed through the provision of appropriate mental health treatment, then the program pays for itself. Seen another way, for every dollar invested in quality mental health treatment services, $1,069 is saved. There remain many barriers that stand in the way of the provision of essential mental health services for children, but funding should not be one of them.
References


