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Gifted students with a coexisting disability: The twice exceptional

Estudantes com altas habilidades/superdotação com deficiência associada: a dupla excepcionalidade

Steven I. **PFEIFFER**¹

Abstract

The twice exceptional are students who have both high ability and a disability or disorder. The ability can be in any culturally-valued domain, including high intelligence, academics, the visual or performing arts, and athletics. The co-existing disability can be physical, medical, or psychological. There is a growing literature of scholarly opinion about twice exceptionality; however, there are few well-designed empirical investigations of gifted students with anxiety, depression, bipolar disorder, attention-deficit/hyperactivity disorder, eating disorders, conduct problems, or medical, physical or sensory disabilities. This article examines a few key issues about the twice exceptional student and then discusses what we know about the gifted students with attention-deficit hyperactivity disorder and gifted students with learning disabilities. The article also provides a brief discussion on suicide and the gifted student.

Keywords: Attention deficit disorder with hiperactivity; Autistic disorders; Child, Exceptional; Child, Gifted; Developmental disabilities.

Resumo

Estudantes com dupla excepcionalidade são aqueles que apresentam, concomitantemente, alta capacidade e uma deficiência ou doença. A capacidade pode ser expressa em qualquer domínio culturalmente valorizado, incluindo alta inteligência, rendimento acadêmico, artes visuais ou performativas e esporte. Por outro lado, a deficiência coexistente pode ser física, médica ou psicológica. Há uma literatura acadêmica crescente sobre a dupla excepcionalidade, sendo importante destacar, no entanto, um número reduzido de pesquisas empíricas desenvolvidas junto a alunos superdotados que apresentam ansiedade, depressão, transtorno bipolar, transtorno de déficit de atenção/hiperatividade, transtornos alimentares, problemas de conduta ou incapacidades físicas ou sensoriais. Este artigo examina algumas questões-chave sobre o discente duplamente excepcional e, em seguida, discute o que se sabe sobre os alunos superdotados com transtorno de déficit de atenção/hiperatividade e aqueles com dificuldades de aprendizagem. O artigo também fornece uma breve discussão sobre o suicídio e o aluno superdotado.

Palavras-chave: Transtorno de déficit de atenção com hiperatividade; Transtorno autístico; Criança excepcional; Criança superdotada; Deficiências do desenvolvimento.

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There is a growing interest in the gifted field on the topic of the high ability student who presents with a coexisting psychiatric or medical disorder or special education disability - termed 'the twice exceptional' or '2e' student. This article reviews key issues published on the twice exceptional student and discusses two of the more high-prevalent disorders associated with gifted students, specifically Attention Deficit Hyperactivity Disorder (ADHD) and specific learning disabilities. The article also discusses suicide and the gifted student.

High ability students can have co-existing behavioral, social and emotional difficulties. They also can have sensory, physical or communication disabilities (Robinson, Shore, & Enersen, 2007). The co-existing difficulties can vary in terms of severity of impairment, ranging from quite mild and almost imperceptible to severe and debilitating (Pfeiffer, 2013).

The great majority of information on the twice exceptional student is based on case study and anecdotal clinical reports. There are very empirical studies on the topic (Foley-Nicpon, Allmon, Sieck, & Stinson, 2011; Robinson et al., 2007). Most of what the field knows about high ability students with co-existing psychiatric or medical conditions is based on reports consisting of very small and unrepresentative clinical samples (Burko & Pfeiffer, under review; Foley-Nicpon, in press; Pfeiffer, 2015). There is not even one prospective, epidemiological study that has examined a large community sample of non-referred cohorts of gifted children to explore the etiology, pathogenesis, course, and prevalence for those who are twice exceptional.

We need to be cautious when reading reports based on clinical studies of the twice exceptional. There are real limitations when generalizing from clinical samples; clinical samples are anything but representative of the general population of gifted children and youth in the community at large, a small percentage of whom we expect to have a coexisting psychiatric or medical disability. Gifted children who show up at gifted specialty treatment centers or are referred to well-known therapists in the gifted field tend to present with more serious or dramatic symptomatology and

tend to be more impaired. And gifted children who are seen at specialty centers or who are seen by well-known therapists can be expected to come from families that feel more desperate or burdened by their gifted children's problems (Angold, Costello, & Erkanli, 1999; Pfeiffer, 2013).

Some of the information in this article is based on the author's clinical experience working with gifted students with behavioral disorders, cerebral palsy, Asperger's disorder, orthopedic impairments, specific learning disabilities, cancer, diabetes, and a variety of psychiatric disorders. However, the article emphasizes what we know based on material that has appeared in peer-review journals. It is tempting to grandstand, but only very brief personal case material will be included to help illustrate a point.

It is unclear exactly when the term twice exceptional was first used or who, in fact, first coined the term. Many contend that James Gallagher first coined the term, and it would be nice to believe that he did, if for no other reason than because he was the author's professor and mentor in graduate school at the University of North Carolina. However, the earliest reference appeared in a chapter entitled, "Gifted handicapped: A desultory duality", written by Yewchuk and Lupart (1988).

The term twice exceptional was likely borrowed from a similar concept in medicine, namely "comorbidity". In medicine, comorbidity refers to patients with an index disease (e.g., cardiovascular disease) who also have one or more other diseases in addition to the index disease, such as asthma, migraine, rheumatoid arthritis, breast, colon or prostate cancer, or diabetes mellitus (Gijzen et al., 2001). Comorbidity is a frequently studied diagnostic phenomenon in psychiatry as well as general medicine (Angold et al., 1999). In fact, in psychiatry some have argued that comorbidity is the "premier challenge facing mental health professionals" (Kendall & Clarkin, 1992, p.833). There are at least three reasons for the interest in comorbidity in medicine: comorbidity is highly prevalent in the population; persons with comorbid medical conditions are associated with less favorable

outcomes; and comorbidity can cloud our understanding of the etiology, course, and treatment of each medical disease and psychiatric disorder coexisting in one index patient.

In the author's clinical practice working with gifted children, it is very unusual for the referred child to present as a "pure" case of a gifted child with one very specific and clearly demarcated psychological disorder (e.g., eating disorder, bipolar disorder, ADHD). In the great majority of cases, the gifted child presents with an admixture of maladaptive symptoms and at times two or more distinct psychological disorders. Boundary problems are common in childhood mental disorders, just as they are in medicine (Pfeiffer, 2013).

A number of factors can complicate the diagnostic and treatment challenges that psychologists face when assessing or counseling a gifted student who is presenting with one or more co-existing psychiatric or medical disabilities. What follows is a brief discussion of five such issues:

Time of onset of the disorder

Medicine has found it helpful to distinguish between the onsets of each disease among comorbid patients. Clinical researchers in the gifted field have not yet begun to examine the times of onset when gifted students present with two or more co-existing disorders, for example the twice exceptional gifted student with ADHD and conduct problems.

Primary vs. secondary disorders

In medicine, a secondary condition is considered caused by a primary condition. For example, renal failure secondary to a myocardial infarction generally results from hypo-perfusion of the kidneys, caused by a calamitous drop in the patient's blood pressure following the heart attack (Angold et al., 1999). However, very few if any of the common child psychiatric comorbidities have been shown to result from one disorder causing another. For example, ADHD and bipolar disorder

often coexist in the same patient; the rates of ADHD range from 57 to 98% in bipolar patients (Borchardt & Bernstein, 1995) and rates of bipolar disorder range from 11 to 22% in ADHD patients (Biederman et al., 1996). However, although ADHD and bipolar disorder show high comorbidity in multiple clinical studies, no one has proposed that one causes the other.

Some in the gifted field argue that being gifted places one at heightened or increased risk for developing psychological problems and even psychiatric disorders, such as low self-concept, depression and anxiety (Baum & Owen, 1988; 2004; Baum, Owen, & Dixon, 1991). This position is consistent with the above medical view in which giftedness serves as the "primary condition" causing the psychological problem or psychiatric disorder (the "secondary disease"); purportedly the high Intelligence Quotient (IQ) and psychological disorder are based on a suspected common pathophysiology in the brain (van Weel & Schellevis, 2006). A majority of authorities in the gifted field, however, do not view being gifted as automatically increasing one's vulnerability or risk for psychiatric disorders (Robinson, 2002; Neihart, 2008; Pfeiffer & Stocking, 2000; Pfeiffer, 2013). Some, in fact, argue that being gifted serves as a potential advantage, a prophylactic which serves to increase the gifted youngster's resilience and ability to effectively cope with adversity, stress or conflict. There is some logic to this argument in that students of high intellectual ability have, by definition, more advanced cognitive skills and could be expected to better understand the nuances of social and interpersonal situations and possess a greater array of problem-solving strategies. This intriguing hypothesis has yet to be empirically tested with a representative cohort of gifted youngsters in the community.

Gifted students, as a group, are typically at least as well adjusted as their non-gifted peers (Neihart, 2008; Neihart, Pfeiffer, & Cross, 2015). Some gifted students, however, do struggle with psychological problems and psychiatric disorders that can be distressful, dysfunctional and even dangerous (Cross, in press). Not all gifted children easily navigate the often challenging social and

emotional waters of childhood and adolescence. Quite a few experience psychological problems every bit as distressful as those experienced by their same-age non-gifted peers (Pfeiffer, 2003; 2013; Pfeiffer & Stocking, 2000).

Comorbidity challenges disease-specific guidelines

Medicine has documented that the interacting effects of two or more concurrent diseases complicates their management. Physicians report that effective individualized care requires more than simply the sum of separate guideline components (Kendall & Clarkin, 1992). There is little research, and an urgent need, for testing the impact of treatment guidelines for patients with comorbid diseases. An analogous, although not parallel, case can be made for the twice exceptional student. There is no peer-reviewed research that has examined the effectiveness of evidence-based treatment protocols (e.g., behavioral parent training for ADHD, Cognitive-Behavior Therapy for depression, or parent management training for disruptive behavior problems) when applied specifically to a clearly defined cohort of twice exceptional gifted students. Of course, being gifted is not the same as having a medical disease such as angina, hypertension, renal failure, depression, or diabetes.

Co-morbidity vs. complexity

Co-morbidity is the concurrent co-existence of two or more medically diagnosed diseases in the same patient, with the diagnoses of each disease based on clearly established and widely accepted diagnostic criteria (Nardi et al., 2007). Co-morbid conditions are almost always more serious and require more comprehensive and intensive treatment (Fortin, Soubhi, Hudon, Bayliss, van den Akker, 2007; Kerby & Hennessy, 2003). The concept of complexity is related to but not exactly the same as co-morbidity. Complexity or “case mix complexity” is a term used in medicine to refer to a set of multiple patient attributes that include, in addition to co-morbidity, socioeconomic factors, lifestyle

factors, access to healthcare, severity of the illness, prognosis, treatment difficulty, need for intervention, and resource intensity to manage the illness (Nardi et al., 2007; Safford, Allison, & Kiefe, 2007). The more complex the case mix the greater the need for multiple resources, and the less predictable the course and outcome for the treated patient. In addition, the more complex the case mix, the greater the reliance on clinical judgment and a tailored treatment plan, and the more important coordination of services. In this sense, case mix complexity perhaps is a more useful concept than co-morbidity when considering the twice exceptional student. In other words, it would be helpful to conceptualize the gifted student with a sub-clinical or even full-blown psychological or psychiatric disorder from a “complex case mix” perspective, rather than from a co-morbidity model, since giftedness is not a disease but rather a relevant characteristic of the individual that can contribute to making the case more challenging to treat.

Misdiagnoses and missed diagnoses

Most authorities recognize that diagnostic boundaries in medicine are not absolutely precise and that there exists a gray area and degree of overlap among disorders (Angold et al., 1999). For example, there are shared symptoms in arthritis, hypertension, ischemic heart disease, and stroke (Gijssen et al., 2001), which complicates for the physician making correct diagnoses. The same is true in terms of diagnostic boundary issues clouding precise diagnoses with gifted students presenting with possible co-existing problems. Some experts in the gifted field contend that “misdiagnoses stem primarily from the widespread ignorance among otherwise well-meaning and well-trained professionals about the social and emotional characteristics of gifted children and adults” (Webb et al., 2005, p. xxiii). There is the potential for misdiagnosis if the practitioner incorrectly attributes characteristics of some gifted children as indicative of defining symptoms of one or more underlying disorders. For example, the high activity level,

boredom, resistance to rules and regulations, or intellectual over-excitability of an intellectually gifted youngster might be misinterpreted as defining symptoms of ADHD. Some authorities estimate that as many as half of gifted children with the diagnosis of ADHD are misdiagnosed (Webb et al., 2005). This is probably an overestimate of what is, however, a real problem with some gifted children being misdiagnosed.

A recent survey of school psychologists in the USA found that the great majority of practitioners - all members of the National Association of School Psychologists -, were provided very little graduate training on the gifted. Less than half of the national sample reported receiving any training on characteristics of gifted students, and two-thirds of the group of practitioners reported receiving no training regarding the social-emotional needs of the gifted or any information on twice-exceptionality (Robertson, Pfeiffer, & Taylor, 2011). One can understand how misdiagnosis is both a serious and not uncommon phenomena in the gifted field. Misdiagnoses can lead to improper and even dangerous treatments. Following up on the example cited above, the bored, highly excitable and intellectually impetuous gifted student incorrectly diagnosed with ADHD could very likely be improperly prescribed psycho-stimulant medication.

In addition to misdiagnoses, there is the risk of a missed diagnosis. What this means is that the student's intellectual gift or special talent can serve to mask from the teacher or parents the presence of an actual disability. And equally probable, the adverse impact of a disability can mask or disguise the student's gift or special talent. In both instances, the student is not identified as twice exceptional when they are. In the first instance, the student is recognized as gifted but not diagnosed as also having a co-existing disability because their advanced intellectual or academic abilities camouflage recognition of the disability. And in the second instance, the student is not identified as gifted because their disability serves to overshadow their intellectual or academic gifts. In both instances, the student is denied much-needed special services or

programs because their twice exceptional status goes unrecognized.

A final possibility exists. It is conceivable that in some instances, a high ability student with a disability could go unidentified as both gifted and disabled. One could overlook both the giftedness and the disability if components of each conceal or mask one another with neither readily noticeable.

The National Education Association (2006) published a white paper on the twice-exceptional student. The white paper states, '...some youngsters show a pattern of extreme strengths combined with areas of significant difficulty...commonly referred to as twice-exceptional students; students who have outstanding gifts or talents and are capable of high performance, but who also have a disability that affects some aspect of learning' (National Education Association, 2006, p.1). The white paper notes that the twice exceptional "are among the most frequently under-identified population in our schools. Twice-exceptional students present a unique identification and service delivery dilemma for educators" (National Education Association, 2006, p.1). If we assume that approximately 6% of the student population is classified as gifted, then there are approximately 3 million gifted children in grades K-12 in the USA. In 2000-2001 there were nearly 6 million students in the USA served under the Individuals with Disabilities Education Act (IDEA) (US Department of Education, 2002). This equates to approximately 360,000 or 6% of the students served by IDEA as twice exceptional, academically gifted with a disability. There are likely a considerable number of high ability students with disabilities who have been missed and not identified in the schools. The article now discusses ADHD and specific learning disabilities and the gifted.

Attention-Deficit/Hyperactivity Disorder and the gifted student

Attention-Deficit/Hyperactivity Disorder is a high-prevalent childhood disorder (3 to 7% of school-age children). Some of the hallmark symptoms that characterize this disorder mimic behaviors often associated with giftedness. In IDEA (2004), ADHD

is categorized under “other health impairments”. In the Diagnostic and Statistical Manual of Mental Disorders (DSM-V) (American Psychiatric Association, 2013), ADHD is described as a disorder marked by attention problems, hyperactivity, and impulsivity. “ADHD is a persistent pattern of inattention and/or hyperactivity-impulsivity that interferes with functioning or development... ADHD begins in childhood... Manifestations of the disorder must be present in more than one setting (e.g., home and school, work)” (American Psychiatric Association, 2013, p.61). Associated features of ADHD include low frustration tolerance, temper outbursts, bossiness, stubbornness, dysphoria, and rejection by peers. Many of these symptoms and characteristics are reported in some gifted students, making an accurate differential diagnosis difficult (Baum, Olenchak, & Owen, 1998; Webb et al., 2005). For example, the following characteristics are frequently associated with gifted students and also implicated in ADHD: rapid speech, extra sensitivity to stimuli, difficulty adjusting to change, impulsivity, and blurting out answers. Interestingly enough, one authority in the gifted field even speculates that there are actual similarities between the behavioral manifestations of ADHD and creativity (Cramond, 1994).

The most popular etiological explanation correlates ADHD with a core deficit that compromises executive function (Castellanos, Glaser, & Gerhardt, 2006), with the frontal and frontal-striatal circuits implicated (Barkley, 1998). It is hypothesized that there is a deficiency of the neurotransmitters dopamine and norepinephrine, as well as possible cerebellum dysfunction, in children with ADHD (Kalbfleisch & Banasiak, 2008). No single etiological cause or pathogenic pathway has yet been identified. However, there is growing evidence for heritability and biological risk factors, including low birth weight and maternal alcohol or substance use during pregnancy. Barkley (1998) emphasizes that basic inhibitory processes underlie the core deficit.

Attention Deficit Hyperactivity Disorder can and typically is an insidious disorder. It is a difficult disorder to correctly diagnose. There are no

objective measures or bio-medical lab tests that can confirm an ADHD diagnosis. As mentioned above, some of the symptoms that represent behavioral criteria for ADHD according to DSM-V (American Psychiatric Association, 2013) are also behaviors which are reported as characteristic of some gifted children. This complicates an accurate ADHD diagnosis for gifted students. Although there is no actual epidemiologic data on this point, it is reasonable to assume that a significant number of gifted students are misdiagnosed with ADHD, and that an equally significant number of gifted students with ADHD are not correctly identified as having ADHD (“missed diagnosed”) because their high ability masks or obscures identifying the disorder (Pfeiffer, 2009; 2013).

Clinical experience and expertise are required to make an accurate differential diagnosis because of the subjective nature of ADHD symptoms and because of the symptom-overlap between ADHD and characteristics of giftedness. Hyperactivity, impulsivity, distractibility and inattention can be the result of multiple root causes; ADHD is only one likely culprit. For example, the intellectually gifted 2nd grade student who is bored because she has not been provided with an appropriately challenging and differentiated curriculum might be expected to display a host of inattentive and off-task behaviors that behaviorally mimic ADHD. A careful and comprehensive assessment is necessary. There exist a number of psychological and neuropsychological tests that can assist the trained diagnostician in helping to make a correct differential diagnosis for ADHD, including the Test of Variables of Attention (TOVA) (Greenberg, 2007; 2011), Gordon Diagnostic System (Gordon, 1983), and the Continuous Performance Test (CPT) (Conners, 1994).

Psycho-educational intervention for gifted students with ADHD need to address the social, emotional, cognitive and neuropsychological aspects of both the ADHD and the high ability (Neihart, 2008). The intervention needs to be individually tailored for each student, with the psychologist customizing treatment to both the level of impairment caused by the ADHD and the gifted

student's profile of abilities, interests, learning and processing style, and motivation. The intervention must address the student's disability, based on evidence-based research in the treatment of ADHD. For example, contingency-based child behavioral procedures, behavioral parent training, and psychostimulant medication that adjusts neurotransmitter imbalance are considered the treatments of choice for a majority of children with ADHD (Hinshaw, 2006). However, each case is unique and the psychologist must monitor the effectiveness of the interventions that are implemented at home and in the classroom. There is no research on the efficacy of psychostimulant drugs prescribed to twice exceptional gifted/ADHD students, although there is no neurophysiological reason not to expect a favorable response for most gifted children. One important point is that interventions must recognize and not neglect the student's gifts. Kalbfleisch and Banasiak (2008) offer a number of useful instructional and curricular approaches for the twice exceptional gifted/ADHD student.

Specific learning disabilities and the gifted student

Misdiagnosis and missed diagnosis can and likely does occur frequently for Specific Learning Disabilities (SLD) and the gifted student. The same diagnostic dynamics operate with both disorders, SLD and ADHD (Pfeiffer, 2009; 2013). There are no objective or lab tests that can confirm a diagnosis of SLD. Further confounding the SLD diagnostic issue is the fact there is considerable disagreement and even controversy among professionals in the learning disabilities and school psychology fields about how to correctly identify students with a learning disability (Pfeiffer, 2013).

Two once extremely popular but now less dominant diagnostic approaches relied on profile analysis of test scores and application of a discrepancy formula between ability and achievement. The preeminent problem with profile analysis is that "an uneven profile does not necessarily indicate unevenness in any latent capacities residing within

the child; it is just as likely to be the result of motivation, past learning experiences, or measurement error" (Lovett & Lewandowski, 2006, p.522). The primary problem with ability-achievement discrepancy analysis is the fact that obtained score differences between two tests can be the result of measurement error and not reflect any real difference between the two purported constructs (Haertel, 2008). IDEA regulations allow school practitioners in the USA to continue to use an ability-achievement discrepancy analysis for the identification of SLD but caution that the student must demonstrate a "severe discrepancy between achievement and intellectual ability" (IDEA, 2004, Sec. 614(b)(6)(A)). It is a unique challenge to operationally define what most would accept as a "severe discrepancy" when a student is functioning at or above grade level.

A detailed discussion on the SLD diagnostic controversy is beyond the scope of this article on the twice exceptional student. An excellent white paper on SLD identification and intervention was authored by Hale et al. (2010). The white paper cautions that neither ability-achievement discrepancy analyses nor failure to respond to evidence-based psycho-educational interventions (Response to Intervention) alone is sufficient to make an SLD diagnosis. The paper recommends a comprehensive psycho-educational and neuropsychological approach which identifies a pattern of psychological processing strengths and deficits in conjunction with achievement deficits consistent with the pattern of processing deficits. This recommended approach is reasonable and consistent with what we know about SLD. The recommended assessment requires a detailed and comprehensive assessment test battery conducted by a psychologist with considerable training and expertise in the areas of cognition and learning, clinical neuropsychology and learning disabilities. Many school-based practitioners in the USA, Brazil and elsewhere, unfortunately, don't have this level of expertise.

Some critics of the twice exceptional learning disabilities diagnosis challenge the idea that a student whose achievement scores are in the

average range or higher should ever be considered for a diagnosis of SLD (Lovett & Lewandowski, 2006; Lovett, 2011). This author's experience, and the experience of many others (e.g., Assouline, Foley-Nicpon, & Whiteman, 2011; Olenchak & Reis, 2002), suggests that students of high ability with SLD exist. However, it is clear that it is difficult making a correct diagnosis of SLD among high ability students. Especially since the identification of this group is complicated by the fact that their abilities and gifts can mask their psychological processing deficits and learning problems.

Twice exceptional gifted/SLD students may present with one or more of the following social, emotional or behavioral characteristics: unhealthy perfectionism, intensity of emotions, low self-esteem, particularly as a learner/student, intense frustration and readiness to give up when faced with difficult academic tasks, feelings of low self-efficacy (Baum & Owen, 2004; Baum et al., 1991; Olenchak & Reis, 2002; Pfeiffer & Stocking, 2000; Whitmore, 1981). It has been reported that some twice exceptional students with SLD present with depression and even suicidal ideation (Reis, Neu, & McGuire, 1997). This author has observed in his private practice that twice exceptional gifted/SLD students often adopt fixed mindsets ("entity self-theories") about their own abilities. The adoption of a fixed mindset contributes to fragile self-confidence and increasing reluctance to stick with difficult academic assignments (Dweck, 2006).

An innovative investigation by Gerber and Ginsberg (1990) investigated eminent adults with documented SLD. They sought to identify coping strategies that contributed to this group's success. Their cohort of successful adults reported the following things as particularly helpful during their schooling: nurturing self-control and empowerment, building persistence and grit, an emphasis on accomplishing goals, reframing their learning disability as a personal attribute for which they can develop compensatory strategies, and de-emphasize the disability. Olenchak and Reis (2002) provide promising educational interventions for the twice exceptional gifted/SLD student. Their recommendations include individually tailored

enrichment activities, mentorships, and learning compensatory strategies.

Suicide and the gifted student

Suicide is, of course, not a disability. A discussion on suicide is included for two reasons. First, suicide is a very serious and very real global mental health risk for adolescents, including gifted adolescents. Suicide is the third leading cause of death among adolescents in the USA; about 10 in 100,000 15- to 24 year olds successfully complete suicide annually in the USA (American Association of Suicidology, 2004; National Center for Health Statistics, 2006). There is no research on the prevalence of attempted and completed suicide among gifted adolescents (Cross, 2008; in press). However, the few studies that do exist suggest that the incidence of depression and suicide ideation is similar for gifted and non-gifted adolescents (Baker, 1995). There is no evidence to suggest that the prevalence of suicide would be greater or for that matter, lesser for gifted youth. Suicide and depression are often associated in the public mind with gifted individuals, particularly gifted artists.

Cross (2008; in press) points out that suicidal behavior represents at least four categories of behaviors: suicidal ideation, suicidal gestures, suicidal attempts, and suicide completions. It is generally believed that suicidal ideation exists to some degree before a gesture, attempt, or successful completion takes place. Suicide ideation is a high frequency behavior among adolescents, particularly among youngsters with low self-esteem, feelings of depression and alienation, and academic, work-related, peer group and/or family difficulties. Suicide ideation does not necessarily lead to suicidal gestures or attempts, but nonetheless should always be taken seriously. Suicidal ideation is more prevalent among females than males, and this appears equally true for gifted females, as well (Cross, Cassidy, & Miller, 2006). There is no research evidence, however, indicating that gifted youth are at greater risk for suicidal ideation, gestures, attempts, or completions (Cross, in press). The caveat to this statement is that there is very little

available research evidence to conclude that the gifted are at no more risk than their non-gifted peers for suicidal behaviors. One could easily argue that the gifted are at heightened risk for suicidal behaviors, as Webb et al. (2005) suggest when discussing why gifted children are more likely to experience “existential depression” because of their ability to contemplate issues about existence and realize that they are essentially alone in the world. One could just as easily argue, however, that the gifted are at lowered risk for suicidal behaviors because their advanced cognitive abilities represent advanced problem-solving, coping and mastery skills.

It is reasonable to assume that the prevalence rates for suicidal ideation, gestures, attempts, and successful completions are not markedly different for gifted children and adolescents from what is reported for the general population. Gifted children and adolescents do engage in suicidal behaviors, just like their non-gifted peers. Risk factors associated with suicide among adolescents includes: drug and alcohol abuse, family history for suicide, physical or sexual abuse, prior suicidal attempts, impulsiveness, psychiatric disorders such as bipolar disorder, depression, or bereavement due to loss of a close friend or family member. Easy access to lethal methods is the number one risk factor (Davidson & Linnoila, 1991).

Conclusion

This article could easily have been expanded to include a discussion on the twice exceptional gifted/student with Autism Spectrum Disorder, physical disabilities, sensory disabilities, and a wide number of psychiatric disorders. These different types of twice exceptional student exist and each presents with a unique constellation of characteristics and needs (Pfeiffer, 2013). And as already mentioned, there are probably a significant number of high ability students with an admixture of two or more co-existing disorders along with their gifts.

Identification of the twice exceptional student is often a complex and challenging

undertaking. Gifted assessment must always consider both the type and level of giftedness and the type of disability and degree of impairment (Pfeiffer, 2015). Psycho-educational interventions for the twice exceptional student should take into account the social/interpersonal and emotional issues, student's background, culture, and family, and how to accommodate the student's academic strengths and interests as well as plan to address their weaknesses and disability (National Education Association, 2006; Pfeiffer, 2013).

Gifted students can have problems, just like any other youngsters. The gifted are not immune to mental health and medical problems that can befall any student. It is important to remember that sometimes being intellectually or academically precocious can mask underlying psychological problems. And that psychological problems such as ADHD and SLD can sometimes mask being gifted.

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