



Review Article

Psychological Framework for Gifted Children's Cognitive and Socio-Emotional Development: A Review of the Research Literature and Implications

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Abstract

A literature review was conducted to examine the shaping of giftedness during childhood, a period when crucial developmental changes that affect academic outlook and psychosocial wellness take place. The search of the literature covered articles published in English without restriction on publication year in the following databases: PsycINFO, Google Scholar, EBSCOhost, ERIC, and ProQuest. A total of 95 sources were categorized into two thematic areas that include (a) cognitive development of gifted children and (b) socio-emotional development of gifted children. The analysis of the literature reveals that although superior performance constitutes a key element in the notion of giftedness, ability alone cannot lead a gifted child to personal excellence and long-term commitment within a talent domain as it is insufficient to explain outstanding achievements across the life course. Indeed, these publications provide some evidence that the process of nurturing giftedness in children is determined by the dynamic interaction between individual strengths and a supportive environment, which can stimulate or inhibit the full use of a child's ability. Finally, this review is intended to change the way researchers, school practitioners, and policymakers think about the limits and capabilities of gifted children, and to provide suggestions for strategies to support their development.

Keywords

childhood, giftedness, gifted education, natural ability, cognitive and socio-emotional development

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Introduction

There is a certain consensus in child and adolescent development theories that does not exist in the field of giftedness. Different cultures have provided diverging definitions of giftedness and proposed several methods for identifying gifted individuals, reflecting the prevailing perceptions regarding genius in each time period. In the 19th century, giftedness was synonymous with genetic defects, viewed as a cause of maladjusted behavior, and even thought to be a neurotic condition (Robinson & Clinkenbeard, 2008). These myths were dispelled by Terman's (1925–1959) longitudinal study and Hollingworth's (1942) work, which affirmed the extraordinary intellectual abilities of precocious children and suggested new dimensions of their psychological and learning attributes beyond the criteria commonly used to identify them. Subsequently, intelligence quotient (IQ) testing was associated with giftedness (Borland, 2009; Pierson, Kilmer, Rothlisberg, & McIntosh, 2012), where a full IQ score of 120 and above on the Wechsler or Stanford-Binet Intelligence scales was stated as a useful starting place for identifying participants for gifted programs in school (McClain & Pfeifer, 2012; Silverman, 2018).

Across time and across the globe, the idea of high IQ as the sole determinant of giftedness has since been recognized as outdated and inadequate (Steiner & Carr, 2003; Sternberg, Jarvin, & Grigorenko, 2011), and modern approaches have expanded in the direction of giftedness as a developmental construct (Feldman, 2000; Subotnik, Olszewski-Kubilius, & Worrell, 2011). Multifaceted theoretical perspectives have proposed mainly qualitative characteristics in the manifestation of giftedness, namely motivation, task commitment, creativity, and wisdom, recognizing the importance of psychosocial factors in the growth of gifted children (Renzulli, 2016; Sternberg, 2015).

Developmental approaches focus on precocious abilities or specific skills as the key components in the recognition of gifted children in the early years, but as a child ages, achievement in a foundational area of consistent interest becomes the objective measure (Coleman & Cross, 2005; Reis & Renzulli, 2009). During young adulthood, proven superiority must be transformed into fully developed talents as each person interacts with his/her environment, which creates opportunities for learning and real-world success (Horowitz, 2004). A child's developmental processes can be influenced by various factors, such as individual effort and ego strength, appropriate school placement, nurturing from the family, and psychosocial skills coaching. In this framework, Figure 1 visualizes the interaction that internal and external factors have on the development of natural abilities, which can lead a gifted individual to full use his/her gifts and talents in order to achieve extraordinary outcomes across their lifespan.

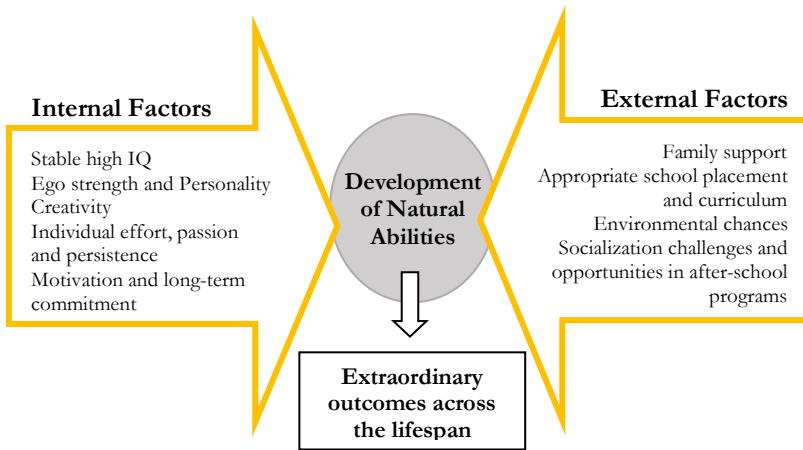


Figure 1. *Internal and External Factors Impacting upon the Natural Abilities and Outcomes of Gifted children*

Aim of the Study

This review aims to be a source of in-depth knowledge for academics and school practitioners who are interested in identifying the most suitable developmental approach for their research on and/or practice with gifted children. Accordingly, this paper examines whether the focus of research on giftedness has shifted over time. In addition, it aims to highlight current thinking in the field and identify the influence of critical factors in gifted children’s cognitive and socio-emotional development, thereby suggesting future research directions, implications for practice, and policy formulations.

Method

In the present study, the method for researching the literature was followed by a content analysis approach. More specific, content analysis was used to include published articles about gifted students' development and their psychological needs. This procedure yielded 95 sources that were categorized into two thematic areas: (a) cognitive development of gifted children and (b) socio-emotional development of gifted children. These thematic areas emerged from the literature that was found important and feasible to study. Content analysis, is a research method that consists of organizing, classifying, comparing and extracting theoretical conclusions from papers and books (Cohen, Manion, & Morrison, 2007). This approach has been selected because it combines these aspects as well as similar data and makes them understandable within the framework of certain concepts and themes. An electronic search of English language peer-reviewed empirical and review articles, as well as books (or book chapters), was conducted in March 2019 without restriction on

publication year in the following databases: PsycINFO, Google Scholar, EBSCOhost, ERIC, and ProQuest. Search terms included “developmental aspects of giftedness,” “cognitive development of gifted children,” “social and emotional development of gifted children,” and “giftedness and family context.” Moreover, psychology and education journals such as *Gifted Child Quarterly*, *Journal for the Education of the Gifted*, *Journal for the Education of Gifted Young Scientists*, *Roeper Review*, *Gifted Child Today*, and *Journal of Advanced Academics* were searched.

The author reviewed all the identified sources to determine whether they met the criteria for inclusion in the paper. To be included, the studies had to (1) focus on the field of giftedness, (2) focus on students: i) identified as “gifted,” “intellectually gifted,” and/or “high-ability” using a variety of methods; ii) enrolled in gifted education and/or talent development programs; and iii) who showed evidence of superior performance on IQ tests and/or in the academic domain, and (3) reflect an international perspective. Studies whose participants were broadly defined as “talented students,” and who demonstrated superior performance mainly in non-academic areas were excluded. Non-English articles, book reviews, dissertations, monographs, and letters to the editor were also excluded from consideration.

Theme I: Cognitive Development of Gifted Children

Gifted learners typically show strengths in perceptual reasoning, verbal comprehension, and visual-spatial thinking (National Association for Gifted Children, 2018; Silverman, 2018). However, despite the fact that some studies considering the results of traditional IQ testing have reported that the gifted display better performance in the domains of working memory (WM) and speed of processing (SP) than typically developing children, findings remain mixed. In fact, it has been suggested that the gifted display a weakness with regard to solving SP tasks speedily (Lang, Matta, Parolin, Morrone, & Pezzuti, 2017). Taken together, these results demonstrate that gifted children perceive an unusual quantity of information from the environment as a result of heightened sensory awareness, suggesting a link between giftedness and perceptual superiority (Hindal, 2014), which may be one of the factors leading to recognizing as gifted those children with a visual-spatial approach to thinking (Silverman, 2000). Moreover, it can be suggested that the gifted have a specific attitude toward gaining knowledge and understanding the world and prefer adopting the response style appropriate to the situation rather than solving problems as quickly as they can.

WM and SP play a critical role in the cognitive development of the gifted in both childhood and adulthood and have been found to be stable predictors of learning outcomes (Alloway & Alloway, 2010; Kornmann, Zettler, Kammerer, Gerjets, & Trautwein, 2015). Steiner and Carr (2003) found a link between IQ, SP, reaction time, and decision time that may facilitate rapid recall, enhancing gifted children’s performance in cognitive activities. For example, gifted children recite poems and

songs before the age of two, and by age three add verbs and transitional words. Their language acquisition approaches that of older children, an achievement that is also connected to excellent memory (Cukierkorn, Karnes, Manning, Houston, & Besnoy, 2008; Vaivret-Douret, 2011). Other studies (Benbow & Minor, 1990; Dark & Benbow, 1991) reported individual differences regarding the type of giftedness in terms of WM and SP. For instance, mathematically gifted students show better performance on SP and WM tasks, while verbally gifted students are better at comprehension tasks and general knowledge.

Gifted children often score lower on measures of WM and SP than other broad abilities commonly assessed by IQ tests, hindering gifted identification and their enrollment in gifted programs (Silverman, 2009; Rowe, Kingsley, & Thompson, 2010). Lower WM and SP scores on intelligence tests could be explained by the fact that gifted children do not find these tasks challenging enough. In fact, because gifted individuals have a tendency toward perfectionism and more complex thinking than actually required, they may be penalized when they spend longer planning an easy cognitive task or when they repeatedly check their responses (Birlean & Shore, 2018). Other researchers have suggested that the proven differences in SP may reflect variations in motivation, attention, and executive capabilities (Geary & Brown, 1991).

Metacognition and cognitive flexibility have been defined as executive functions because of their complexity (Roebers, 2017). High cognitive flexibility is an important element of giftedness and creativity that can lead to optimal learning outcomes as it contributes to the use of strategic abilities and broader knowledge in a hierarchical way to find solutions to new problems (Zenasni, Mourgues, Nelson, Muter, & Myszkowski, 2016). A strong desire to learn and try to understand advanced visual-spatial relations can be signs of young gifted children's cognitive flexibility, which may have a significant impact on different areas of cognitive growth. During middle childhood, a sure sign of flexibility in gifted individuals is their willingness to use a variety of creative skills and combine different options to act on complex problems and make rapid connections, including with regard to algebra, advanced physics, and epistemological concepts (Shore, 2000). Therefore, gifted learners need an advanced curriculum that facilitates a higher level of critical and creative thinking skills in order to develop metacognitive and strategic competences and apply them directly to different learning tasks (Papadopoulos, 2016).

In the developmental-Piagetian framework, giftedness can be understood in terms of universal stages, child-environment interaction, and transitions. Studies seem to agree that although all children generally follow the Piagetian stages in the same order, gifted learners exhibit accelerated growth in reasoning; thus, they move faster between stages than others, but there are diverse findings regarding exactly

how early they begin transitioning between stages (Carter, 1985; Cohen & Kim, 1999, p. 201; Rogers, 1986).

In their review, Berninger and Yates (1993) identified stage advancement in gifted children, indicating that they reach the formal operational stage at best two to three years earlier than their non-gifted peers. In addition, they found that gifted boys tend to move through this stage more rapidly than gifted girls. Other findings support that although gifted children are more advanced in specific cognitive or talent domains, they neither demonstrate exceptional development in the universal stages nor show evidence of consistent formal operational reasoning before age 11 (Feldman, 1982).

A study included in Rogers' (1986) review found a significant relationship between chronological age and earlier transition to the formal operational level, indicating that developmental achievements are linked to chronological rather than mental age. Indeed, Bekey and Michael (1987) found that highly gifted participants, as compared with regular gifted children, completed Piagetian tasks faster, suggesting that the time provided to complete a task is a more important predictor of success than either chronological age or IQ performance, although both groups can perform at least one formal operational activity by age 10.

Theme II: Social and Emotional Development of Gifted Children

Socio-emotional development provides individuals with the skills to experience, cope with, and efficiently manage personal and social challenges. With respect to gifted children, there is a dichotomy between psychosocial resilience and emotional fragility (Neihart, Pfeiffer, & Cross, 2015; Neihart & Yeo, 2018). The perspective that considers giftedness an asset has a long historical background, positing that gifted individuals are superior not only intellectually but also psychosocially, showing more emotional strength, and that high IQ can automatically lead a gifted person to eminence and success in life, especially among the well-known Terman sample (Coleman & Cross, 2005).

On the contrary, some researchers and school mental health providers consider gifted children to be at risk of developing emotional difficulties and problems in peer and sibling relationships possibly because of the dynamic interplay between interpersonal, intrapersonal, and environmental factors (Callahan et al., 2004; Mueller & Winsor, 2018). Heightened conscious awareness of environmental stimuli owing to fast information processing can lead gifted children even from a very young age to become involved with problems facing humanity. As they are not emotionally prepared to debate such topics, this can affect their experience of stress (Hebert, 2011; Mendaglio, 2007), making them more vulnerable, which can lead to problems in personality development and emotional sensitivity (Peterson, 2018). In her studies with highly gifted children, Hollingworth (1942) found that higher IQ was associated with more severe issues in psychosocial adjustment, a perspective that still holds

(Gross, 2009). According to Coleman and Cross (2005), gifted children's internal conflict is not an inherent feature but a consequence of their accelerated development rate, which, combined with more complex abilities and interests, leads to incompatible expectations projected on these children.

Despite the fact that advanced ability could aid gifted children in coping with the criticism associated with the label, being gifted can increase the risk of social isolation and stigmatization, leading to psychological distress (Košir, Horvat, Aram, & Jurinec, 2016). In tandem, a few studies have shown that gifted adolescents experience mental health issues including anxiety (Harrison & Van Haneghan, 2011; Tong & Yewchuk, 1996) and mood disorders (Bénonny, Van Der Elst, Chahraoui, Bénonny, & Marnier, 2007; Jackson & Peterson, 2003). However, current research indicates that although gifted children can face complex socio-emotional concerns that put their subjective well-being at risk, they are at least as well psychosocially adjusted as their average-ability classmates (Cross & Cross, 2015; Kroesbergen, van Hooijdonk, Van Viersen, Middel-Lalleman, & Reijnders, 2016).

The Columbus Group (1991), comprising psychologists, educators, and parents with experience with gifted children, recommended a new concept of giftedness focusing on asynchronous development leading to disparities between the intellectual, physical, and socio-emotional domains, where cognitive development outpaces the other areas of development. Gifted children can experience this developmental mismatch, leading to issues in the way they internally experience and externally behave in the world, as this is very different from the norm. Silverman (1997) stressed that this lack of synchronization in the rhythm of cognitive and emotional development influences gifted children's ego development and personality, causing feelings of helplessness. According to Dabrowski's (1964) theory of positive disintegration, the presence of intellectual, emotional, and imaginal overexcitabilities in gifted and talented individuals is higher than normal, and these are key elements for a higher level of personality development (Piirto, Montgomery, & May, 2008). Piechowski (2006) explained differences in emotion in terms of intensity and subjective experience different from the norm, which can reflect an overexcitability. Moreover, he suggested that intensity must be understood as a qualitatively distinct feature in gifted persons, as an experience is not understood to a different extent but in a different way compared to the norm. An in-depth understanding of gifted children's overexcitabilities and asynchronous development can help teachers, parents, and gifted children themselves be aware that strong emotional reactions and sensitivities are a crucial aspect of gifted personality development rather than features masking psychopathology (Bailey, 2011).

Regarding personality characteristics, intellectually gifted students score higher than their classmates on openness to experience and lower on neuroticism in terms of the "Big Five" model (DeYoung, 2011; Limont, Dreszer-Drogorób, Bedyńska,

Śliwińska, & Jastrzębska, 2014). Moreover, the academic achievement of gifted children is associated to a higher degree with agreeableness and conscientiousness than with intelligence. Personality typology research using the Myers-Briggs Type Indicator found that gifted adolescent boys showed a tendency toward introversion rather than extroversion, and thinking rather than feeling, while gifted girls tended toward perception rather than judgment, and extroversion rather than introversion (Cross, Speiers Neumeister, & Cassady, 2007). Consistent with these findings, Sak (2004) reviewed 14 studies on the typology of gifted persons and found that the most common personality types were “intuitive” and “perceptive.”

Perfectionism, a commonly cited trait of gifted individuals, is a multifactorial condition and should not be confused with gifted persons’ motivation for excellence and hard work (Speiers Neumeister, Flechter, & Burney, 2015). Gifted individuals demonstrate perfectionism when they are no longer satisfied with their achievements, as they believe that their efforts will never be good enough (Schuler, 2002). Studies have found that gifted students demonstrate high levels of negative perfectionism and difficulty in coping with failure and criticism, mostly in the academic domain (Guignard, Jacquet, & Lubart, 2012; Mofield & Chakraborti-Ghosh, 2010). Moreover, when their unrealistic expectations are not fulfilled, they engage in negative self-assessment and self-criticism and experience immobilizing anxiety and feelings of inferiority (Tippey & Burnham, 2009). In addition, gifted children already face the stigma associated with being “the perfect child,” and thus teachers’ expectations only add to their burden, which in turn influences their happiness and daily functioning (Speiers Neumeister, Williams, & Cross, 2009). Peterson (2000) reported a strong association between hyperachievement and distress in young gifted homosexual, bisexual, and/or transgender (LGBT) adults. Ironically, the gifted persons in that study ascribed great importance to highlighting their extraordinary performance, which was socially acceptable and had positively recognizable features, because of the negative experiences stemming from their sexual orientation.

Gifted underachievement is defined as a persistent and large discrepancy between school outcomes and actual ability, which represents a complex and common problem among this population (Siegle, 2018). Untailored curricula, unrealistic parental goals, and weak parental involvement in the child’s learning progress as well as problems in relationships with the peer group and socio-emotional issues are important factors that can lead to underachievement (Reis & McCoach, 2000; Rubenstein, Siegle, Reis, McCoach, & Burton 2012). The family environment can be especially tense when dissatisfaction with the curriculum leads to parents changing their child’s school (DeVries & Webb, 2007). This can become an external risk factor that influences children’s academic outcomes and passion for learning and may have an impact on their socialization (Free, 2017). Further, some gifted children can be at high risk of underachievement if they have also been diagnosed with disabilities. The

term “twice-exceptional” is used to describe children whose giftedness is overshadowed by their learning deficits or other impairments such as autism spectrum and attention deficit/hyperactivity disorders, which can reduce their academic achievement and cause socio-emotional difficulties (Beckmann & Minnaert, 2018).

Discussion about Cognitive and Psychological Development of Gifted Children

This article considered the most important approaches in order to create a framework to guide scholars and primary care providers with respect to gifted child development and education. First, it provided a developmental perspective to better understand the cognitive growth of gifted individuals. The gifted display precocious and advanced cognitive development in perceptual reasoning, abstract thinking, and conscious awareness, which influences their future academic performance, motivation for learning and self-development, and commitment in specific interest domains (Jung & Worrell, 2017; Lang, Matta, Parolin, Morrone, & Pezzuti, 2017; Silverman, 2018). Furthermore, this review reveals that although gifted children reach the Piagetian stages earlier and move through them at an accelerated pace, the association between IQ and Piagetian tasks becomes more important as children mature (Berninger & Yates, 1993).

Second, this review highlights that gifted children and teens have qualitatively different internal experiences and external manifestations of the world because they think and feel differently from their average-ability classmates (Roeper, 1996; Silverman, 1998). The examination of selected studies presents two conflicting views regarding psychosocial development. One posits that the intellectual strengths of the gifted can facilitate success and adjustment in life at least as much as in non-gifted individuals (Bailey, 2011; Cross, Cross, & Davis, 2009). On the contrary, a growing body of research indicates that gifted children are not immune to psychological distress and may have unmet socio-emotional and counseling needs because of various factors, including asynchronous development, inner emotional intensity, overexcitability, and negative perfectionism (Cross, Anderson, Mammadov, & Cross, 2017). Furthermore, the interaction between gifted children, their parents, and the school is crucial for the development of giftedness, as parents are the main source of caregiving and influence a child’s desire to explore the environment, and school is the key context determining a child’s motivation to learn. Children who become eminent adults are supported by their parents in the long-term process of talent development and enjoy growing up in intact families with authoritative parents who promote emotional stability and experiences of love. Moreover, studies have found that family members who occupy clear positions, display warm relationships, and exhibit satisfactory levels of cohesion and bonding, represent important ecosystem moderators that foster positive outcomes in gifted children and can

contribute to preserving their well-being (Olszewski-Kubilius, Lee, & Thomson, 2014).

Limitations of the Literature on Giftedness

The main limitation of the present review is the notable heterogeneity across studies with regard to the definitions of “gifted” and “high-ability”; these differences reflect varying identification criteria across countries and cultural contexts. For instance, among researchers, there is a lack of consensus regarding the acceptable criteria for identifying children as either gifted (including intellectual or academic giftedness) or high achievers, and how well these terms describe the same construct in terms of abilities, thus resulting in conflicting findings and implications. Moreover, the literature reflects a general failure to consider how gifted children’s social and emotional adjustment may be influenced by their ability levels as well as by parenting practices and family climate. While utilizing a cross-sectional design to compare gifted and non-gifted students is more time- and cost-effective than employing a longitudinal design, cross-sectional studies lack experimental control and are limited with regard to the ability to make causal inferences. For such reasons, it is suggested that future studies consider longitudinal designs wherever feasible. Although longitudinal studies raise some difficulties in research methodology, such as lack of engagement in protocols, funding concerns, and differential attrition, they offer the best chance to tease apart the relative contributions of potential moderating variables, and thus, provide an understanding of cognitive and socio-emotional development among the gifted.

Implications for Gifted Education

The findings have important implications in educational and clinical settings. During childhood, well-trained school psychologists specialized in gifted education aim to identify gifted children using intelligence tests and other measuring tools assessing personality, creativity, motivation, and learning style (Jung & Worrell, 2017). The objective instruments used in the diagnostic process as well as observations by teachers, parents, peers, and siblings can help developmental and school psychologists psychometrically and informally evaluate an individual’s level of ability, which should be consistently high over time in the case of gifted children. The clinical usefulness of psychological assessment is that it contributes to appropriate school placement and career planning for gifted children as well as identifying twice-exceptional individuals. Moreover, it could help identify potential problems early on, implement intervention programs in case they are needed, and decide on appropriate referrals (Reis & Renzulli., 2009).

Besides giftedness identification, the school psychologist’s job is to meet children’s psychosocial and counseling needs, making him/her a link between the child, school, and parents (Robinson, 2002). School providers must be aware of the unique needs of gifted students as they try to manage the challenges of their

development and educational or family environment, which may convey confusing messages and high expectations for success (Colangelo & Assouline, 2000). Reis and Renzulli (2004) suggested that some prevention and intervention activities in school can be beneficial in facilitating the positive psychosocial adjustment of the gifted and talented. Therefore, school psychologists and teachers of gifted students can provide a variety of counseling formats and socio-emotional approaches in the curriculum to help gifted students cope with the stress, perfectionism, and criticism associated with a greater level of achievement in any domain of interest, as well as to guide them early on to appropriate career choices. Further, gifted education practitioners could administer psychoeducational interventions to teach gifted students about their own advanced development, which is sometimes uneven, and to share their unique concerns and needs with others who have similar gifts and face similar challenges (Peterson, 2018). Traditional psychotherapeutic interventions such as cognitive-behavioral therapy or solution-focused brief therapy could be delivered in private practice and community mental health services including individual or group sessions, helping gifted youth overcome the difficulties associated with their giftedness. Given that gifted individuals often tend to hide serious socio-emotional issues, psychologists and therapists need to carefully go beyond what parents or teachers note as unique concerns and needs (Aslan, 2018). Moreover, gifted youth can also be supported using informal counseling formats such as books and movies focusing on gifted individuals to inspire them to be more passionate and work harder at developing their talents.

While interventions for gifted learners may prevent the onset and negative impact of the psychological consequences of giftedness, family issues must not be forgotten. Therefore, a gifted education multidisciplinary team should carefully address the family dynamics of gifted students as part of the identification process (Freeman, 2000). Moreover, they can support parents by reducing the stress associated with their role and helping them accept their ongoing engagement in producing opportunities to transform their children's talents into appropriate career choices, so that they can become future resources for society and help improve people's lives (Jung, 2012).

As schools have been described as the preferred setting to teach students advanced skills, the teacher's main role in gifted education is facilitating stimulating activities to promote the learning potential of gifted students while attaching equal importance to enhancing non-intellectual characteristics, and providing opportunities for developing talent domains in preparation for their future careers (Olszewski-Kubilius, Subotnik, & Worrell, 2015). In addition, school psychologists can encourage the coaching and counseling role of teachers in gifted education for developing students' resilience and reinforcing a positive psychological environment for all members of the school context. Teachers of the gifted should incorporate alternative methods in the educational process, such as working with small numbers

of students and using flexible techniques that cultivate independence in learning and suggest cognitive training methods that can promote problem solving in everyday life. Furthermore, teachers of the gifted should be trained by a gifted education specialist of how to foster gifted students' creativity and thinking skills, which is one of the most important element in the development of appropriate gifted curriculum (Tortop, 2014). Finally, gifted education initiatives should promote all potential domains and interests and reduce the stigma of giftedness (Robins, Coleman, Micko, & Cross, 2015), which drives some of these children to deny or hide their abilities (Silverman, 1998).

Conclusion

Giftedness can be viewed as a lifelong developmental challenge, as the nature of cognitive and socio-emotional growth is dynamic and malleable (Worrell, Olszewski-Kubilius, & Subotnik, 2012). Signs of giftedness can be recognized by well-trained psychologists, preschool teachers, and parents by observing developmental milestones. Even though gifted behavior can appear in childhood with proven features such as high IQ, heightened conscious awareness, or early talent, none of these is independently enough to adequately lead a child to a successful and prominent future. Indeed, this review supports that intellectual ability itself cannot drive individuals to eminence and psychosocial well-being. Gifted individuals should be supported by coaches, mentors, school practitioners, their family, and all community bodies, and must utilize the opportunities provided in the expectation that they will make an effort to develop their talents across the lifespan. There is relatively limited research linking the mental health problems of gifted learners with their drive for excellence; thus, this relationship must not be used as an influential basis for educational policies regarding giftedness-related psychological practices (Simonton, 2014).

The conflicting approaches and scarce consensus reflect the complex nature of giftedness and call for further systematic investigation and collaboration between researchers, practitioners, and policymakers. Future research should fully investigate how high-ability children become talented adolescents and eminent adults by identifying the personal and environmental factors involved in this developmental path. Moreover, because some socio-emotional variables like asynchrony, overexcitability, emotional intensity, and sensitivity are included in the manifestation of giftedness, further research is needed to explore whether they are endogenous features of giftedness or a result of environmental factors. Finally, future studies could examine how the new theoretical models from the field of cognitive developmental psychology can be combined and applied to research on gifted education. Gifted children's development will continue to be a topic for debate. Given adequate opportunities and assistance, gifted children and their families can successfully face their unique developmental and psychological challenges over the

course of their lives, from early childhood potential to creative and innovative adulthood.

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