



Research Article

Unpacking intensities: An exploratory study of parents' perspectives of overexcitabilities in highly to profoundly gifted children

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Abstract

This qualitative exploratory study examined parents' observations of the prevalence of Dąbrowski's overexcitabilities (e.g., intellectual, imaginal, emotional, psychomotor, and sensual) among young highly to profoundly gifted (HG/PG) children ($IQ \geq 145$). The study also explored parents' perspectives on how these characteristics were expressed in their children's behavior and development. Semi-structured interviews were conducted with parents of 14 HG/PG children, supplemented by ElemenOE questionnaire data. Findings revealed that these children exhibited heightened intensities across multiple domains, with half displaying profiles with all five overexcitabilities (OEs) in the "high" range and all but one child exhibiting three or more high OEs. Intellectual, emotional, and psychomotor OEs were the most prevalent. Parents most frequently described intense focus and persistence, advanced reasoning, imaginative play, strong empathy, high energy, and heightened sensory awareness. Several reported early indicators of precocity, such as advanced language, early reading, or complex problem-solving by preschool age, along with social-emotional characteristics including existential questioning, sleep disturbances, and emotional intensity. Qualitative themes illustrated the interconnected nature of overexcitabilities and their influence on development, revealing that heightened sensitivities often coexisted with frustration, perfectionism, and a profound sense of fairness. Parents also described challenges distinguishing gifted traits from possible neurodevelopmental conditions, noting frequent confusion with ADHD or autism-spectrum characteristics. Findings support the utility of the ElemenOE as a parent-report tool and underscore the importance of early recognition of multiple high overexcitabilities. Understanding these characteristics can inform appropriate educational interventions, counseling strategies, and parenting approaches that address the asynchronous development of HG/PG children. This study contributes to the growing body of literature on the early characteristics of highly and profoundly gifted children, informing educational practices, parenting approaches, and support strategies tailored to this exceptional population. Recommendations are shared for educators, counselors, and parents.

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Introduction

Highly to profoundly gifted children are defined in the literature as students with an intelligence test score three or more standard deviations above the norm (Gallagher, 2015). They are frequently described as having heightened sensitivities, intensities, and exceptional abilities across various domains, often from a very young age (Johnson et al., 2024; Silverman, 2012; Tolan, 2017; Wood et al., 2024). Highly to profoundly gifted children are considered to be a rare and special

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population at risk in traditional educational environments (Castellano & Frazier, 2021; Tolan, 2017; Tortop, 2025). Without training and awareness, these students may go unrecognized in the classroom or be misdiagnosed by practitioners. Due to their unique developmental needs, these students often require specific educational interventions such as acceleration (e.g., early entrance, mentoring, radical acceleration) from an earlier age than even their moderately gifted peers (Guilbault et al., 2024; Muratori et al., in press). There can be greater disparity or asynchrony across areas of development requiring different approaches to parenting and counseling (Tolan, 2017).

The highly to profoundly gifted population has been studied since Terman (1925) and Hollingworth (1942); however, a review of the literature reveals that only a handful of empirical studies have been published in recent years. More specifically, over the last decade, few researchers have focused on the social-emotional development and characteristics of highly to profoundly gifted learners, particularly in early elementary school children. Recent research focused on highly to profoundly gifted students includes longitudinal studies of individuals identified as having exceptional talent during their youth (see the Study of Mathematically Precocious Youth, SMPY; Lubinski & Benbow, 2021; Makel et al., 2016) and topics such as peer acceptance, openness to experience and overexcitabilities (Gallagher, 2015; Gallagher, 2022; Guilbault et al., 2024; Wood et al., 2024), identification procedures (Silverman & Gilman, 2020), virtual instruction (Potts, 2019), and parental perspectives and experiences (Johnson et al., 2024; Ruf, 2021).

Despite frequent assumptions in non-empirical literature that highly to profoundly gifted (HG/PG) children experience heightened sensitivities and overexcitabilities, empirical evidence documenting how these intensities manifest in early childhood (and how parents perceive and respond to them) remains limited. This study addresses that gap by integrating parent interviews with the ElemenOE to (a) describe overexcitability profiles in HG/PG children ages 5–8 and (b) interpret how parents understand related social-emotional behaviors at home. By centering caregiver perspectives in the early years, we clarify the developmental dynamics of intensities and offer practical guidance for educators, parents, and counselors. This exploratory study seeks to address the need for renewed research on holistic development, with an emphasis on the social and emotional characteristics of this unique population of gifted learners. According to Assouline et al. (2011), “Descriptive studies of a sample are a common first step in empirical research aimed at better understanding a research sample” (p. 1781). The descriptive findings from this exploratory study will therefore contribute to the field by providing insights that can inform future research and support teachers, parents, and counselors who work with children with exceptional needs. This study provides one of the few parent-focused descriptions of HG/PG OEs during childhood, linking quantified OE profiles to richly contextualized examples that inform early intervention and counseling.

Theoretical Framework

Bronfenbrenner’s (2005) *Ecological Systems Theory* helps explain interactions between the child and parents (microsystem) and external factors such as community and culture (mesosystem and macrosystem). This theory provides a helpful lens through which to view the parent and child relationship in the present study. This exploratory pilot study also draws from the Theory of Positive Disintegration (Dąbrowski, 1964) to gain insight into the children’s behaviors and characteristics through the lens of their parents.

Literature Review

A review of the literature on the social-emotional development and psychosocial characteristics of the gifted was conducted to examine the current knowledge and identify gaps in the research literature. Cognitive and physical characteristics that may distinguish the highly to profoundly gifted group are also presented to better understand this unique group in relation to the guiding research questions of the study. An overview of the literature on Dąbrowski’s Theory of Positive Disintegration, especially as it pertains to gifted individuals, is presented.

Operationalization of Highly to Profoundly Gifted

One challenge for the field is that there is no single agreed-upon definition of giftedness, and even the terms “highly gifted” and “profoundly gifted” refer to different groups of students across the recent literature (see Table 1). Rinn’s (2024) framework for advancing research on the social-emotional experiences of the gifted suggested that researchers “should focus on the operationalization of terms used in research related to the social and emotional experiences of gifted

individuals” (p. 37). In the present study, *highly to profoundly gifted* (HG/PG) students are defined as those with asynchronous development (Silverman, 2012) and exceptional cognitive ability as expressed by an intelligence quotient (IQ) score of three or more standard deviations above the norm (e.g., 145 or greater on the WISC-V). These students may have both disabilities and gifts and talents, and come from all racial, ethnic, linguistic, socio-economic, and geographic backgrounds.

Table 1. Operational definitions of highly and profoundly gifted used in recent literature

Term	Definition	Source
Highly Gifted	Three or more standard deviations from the norm on an IQ test; a score of 150 or above on Stanford-Binet L-M	Gallagher (2015)
Highly and Profoundly Gifted	Students scoring between 140 - 159 on the WISC-V or SB-5 (highly gifted); a full-scale score greater than 159, including extended norms (profoundly gifted)	Guilbault et al. (2024)
Highly and Profoundly Gifted	high IQ as determined by a score of 145 to 159 (highly gifted) or above 160 (profoundly gifted) on a full-scale IQ test such as the Wechsler Intelligence Scale for Children (WISC-V) and/or falling within the 95th percentile on a nationally standardized test such as ACT/SAT in which sixth- through ninth-grade students participate in above-grade-level testing	Johnson et al. (2024)
Profoundly Gifted	Top 1 in 10,000 in mathematical or verbal reasoning ability on the SAT before the age of 13	Makel et al. (2016)
Profoundly Gifted	IQ score in the 99.9 th percentile	Potts (2019)
Highly Gifted Profoundly Gifted	Levels 4 and 5 (5 Levels of Giftedness)	Ruf (2021)
Highly–Profoundly Gifted	140+ WISC-V for inclusion in an international study sample	Wood et al. (2024)

Note. Definitions found in the literature since 2015.

Characteristics of Gifted Children

In the field of gifted education, various characteristic checklists and descriptors have been used in an effort to help educators distinguish between the gifted and typically developing students, particularly for the identification process for advanced academic or gifted education services (Makel, 2025). Makel (2025) emphasized that in this context, there “appear to be two consistent facets of *characteristics* [emphasis added]. They describe what is “usual” for gifted children as well as what makes them “unique from other children” (p. 3). It is important to understand that intellectually gifted children form a heterogeneous group, characterized by varying aptitudes, interests, and abilities (McCormick & Guilbault, 2022). While research indicates that these children share certain traits, each is unique. Common characteristics often cited in checklists and textbooks include having an advanced vocabulary, early reading ability, strong memories, emotional intensity, and advanced problem-solving skills (Dağlioğlu & Suveren, 2013; Hodge & Kemp, 2006); however, these checklists are often not based on empirical research and should be interpreted with caution (Makel, 2025).

Highly and profoundly gifted students are described as having these same traits, yet they are reported to differ in frequency or intensity; anecdotally, their cognitive development appears even more accelerated than that of their moderately gifted peers (Jackson, 2022; Schultz, 2018). In a longitudinal study of 60 exceptionally gifted children with IQ scores between 160 and 179, Gross (1993, 2000) found that highly and profoundly gifted children also displayed accelerated socio-affective development in addition to advanced cognitive development. Advanced development can lead to difficult social adjustment among same-aged peers. Gross (2000) found that the advanced vocabulary and passionate depth of knowledge often exhibited by highly gifted children can lead to a social disconnect when they are kept with same-age classmates.

Cognitive and Physical Development. Developmental milestone charts can be a helpful way to recognize early signs of exceptional ability, although not all HG/PG children accelerate through all milestones more rapidly than others,

and HG/PG children can also have learning differences or disabilities that impact their development. Precocious children may reach Piaget's level of formal thinking much earlier than other children their age, using abstract reasoning when their same-age peers are still at the concrete operational stage (Webb, 1993).

Hollingworth (1942) and Gross (1993, 1999) both noted that children in their studies spoke early (e.g., first words at six months) and in complex sentences in their first year. In Wood et al.'s (2024) study of HG/PG children, the children began speaking at 8.2 months on average. Ruf (2021) found, in her work with exceptional children, that these children showed signs of acute awareness and alertness from infancy; they made eye contact from birth, had existential concerns by age four, early and spontaneous reading ability, precocious verbal abilities, and exceptional reasoning and problem-solving skills such as the ability to complete 35-piece puzzles by 15 months of age. Exceptionally gifted children have been reported to also walk at a much earlier age, often three months sooner than typical (Terman, 1925; Gross, 1993). In Wood et al.'s 2024 study, the greatest physical milestone documented was the early onset of crawling; on average, the children started crawling at 5.2 months.

It has also been reported that gifted, and especially highly to profoundly gifted children, may require less sleep than other infants and children of the same age and often experience difficulty sleeping due to their active minds (Bastien et al., 2021; Tolan, 1994, 2017). Bastien et al. (2021) concluded from their study of 32 gifted children (mean age = 9.62 years) that, although not all gifted children had sleep difficulties, for those who did, "the combination of giftedness and sleep problems appeared to be prejudicial to social-emotional functioning" (p. 605) with giftedness as a risk factor for sleep disorders and adjustment difficulties including anxiety and depression. Several studies have suggested possible connections between high intelligence, particularly strong verbal abilities, and the early onset of conditions such as allergies and asthma (Benbow, 1985 & 1986; Silverman, 2012). Other research indicates that higher rates of allergies have also been observed in some groups of intellectually or mathematically gifted children (Ostatnikova, 2002; Renati et al., 2023). Neuroimaging findings suggest that increased allergy tendencies may be associated with greater gray matter volume in brain regions connected to higher-order cognition and spatial abilities (Takeuchi et al., 2018).

A preference for complexity, holding extremely high expectations for themselves and others, having an intense sense of justice, and a need for precision often describe HG/PG children (Davidson Institute for Talent Development, n.d.; Jackson, 2022; Renati et al., 2023). They learn rapidly with minimal repetition and make intuitive leaps in their thinking. HG/PG children can intuitively skip steps in rote learning, making for a more efficient process (Wood & Laycraft, 2020). This ability can sometimes make explaining their thought processes challenging; they often "know" the answer, but do not naturally follow the traditional linear-sequential steps. Due to their advanced development and rapid learning rate, meeting the needs of HG/PG learners can be challenging in the traditional grade-level classroom. HG/PG learners need different forms of acceleration throughout their education and access to cognitive peers for optimal development. Research confirms that high ability strongly correlates with greater achievement (Lubinski & Benbow, 2021). Students with exceptional abilities have the potential to make significant and valuable contributions across various fields of human endeavor.

Social-Emotional Development. Highly to profoundly gifted children exhibit asynchronous development in physical, cognitive, emotional, and social domains (Honeck, 2019). They frequently report feeling different and out-of-sync with classmates (Sisk & Kane, 2015; Wood et al., 2024), which can lead to loneliness and depression if they lack access to like-minded peers or feel compelled to hide their abilities. HG/PG children also display heightened sensitivity and intensity (Adi & A'ron, 2023; Silverman, 2012; Wood et al., 2024). Their sensitivity is evident in their strong responses to art, music, and current events, as well as a deep empathy and concern for global issues (Silverman, 2012). Parents commonly observe these children's intense emotional expressions (Guthrie, 2019; Johnson et al., 2024). Roeper (1982) even described giftedness as "a greater awareness, a greater sensitivity, and a greater ability to understand and to transform perceptions into intellectual and emotional experiences" (p. 21).

A common misconception portrays HG/PG individuals as socially inept, unpopular, or isolated. This stereotype, often reinforced in the media, was debunked as early as Terman's research (Sternberg, 2025). In contrast to this perception, Gallagher (2015) found that high intelligence was related to high social popularity in a study of highly gifted

elementary students. Research shows gifted individuals are generally socially and emotionally well-adjusted (Rinn, 2020). However, they may face challenges due to inadequate educational environments and limited access to intellectual peers (Gross, 1999; Wood & Laycraft, 2020). HG/PG children often exhibit introverted tendencies, including rich inner lives, a passion for ideas, and thoughtful responses (Daniels & Piechowski, 2009; Ruf, 2021; Sisk & Kane, 2015).

Parents as Observers of Social-Emotional Development in Their Gifted Children

Few scholars have investigated parents' understanding of their gifted child's social-emotional development. Most research including parents of gifted children has investigated parent styles on academic achievement, their influence on child's talent development, satisfaction with school, and challenges raising a gifted child (Jolly & Matthews, 2012; Sodergren & Kettler, 2025). Extant literature highlights some common themes including parental stress and exhaustion, the need for guidance, and difficulties managing their child's emotional regulation (Guthrie, 2019; Johnson et al., 2024; Morawska & Sanders, 2008; Papadopoulos, D., 2021; Peebles et al., 2023; Renati et al., 2017 & 2023).

Parents play a central role in supporting their gifted children's emotional regulation and in navigating the intensity of their personality characteristics and overexcitabilities. At the same time, many parents report feeling isolated or unsupported, and often describe a deep sense of loneliness (Guilbault, in press; Johnson et al., 2024; Renati et al., 2023). Misunderstandings about giftedness and its manifestations can leave parents feeling dismissed or even alienated by friends and extended family. According to Renati et al (2023), the stark developmental differences between their gifted child and their child's same age-peers may further contribute to feelings of guilt or shame.

Tortop (2025) noted an often overlooked issue in the literature on parents of the gifted is a focus on changes or developments that families go through while raising gifted children. Tortop (2025) proposed a theory that explains nine stages of changing psychological states that parents of gifted children experience. These include "Surprise, Anxiety About Not Being Able to Meet the Child's Needs, Facing Reality, The Euphoria of Diagnosis, Seeking Information and Help, Despair and Rebellion, Awareness and Maturity, Relaxation and Automatic Gear, The Desire to Support Others" (Tortop, 2025, p.1). This theory of psychological development of families of the gifted provides a much-needed framework for understanding the evolving emotional journeys of parents and highlights the importance of targeted supports at different stages of their experience.

Dąbrowski's Theory of Positive Disintegration

Kazimierz Dąbrowski, a psychiatrist and psychologist, developed a psychological and philosophical framework known as the Theory of Positive Disintegration (TPD; Dąbrowski, 1964, 1996), which provides a distinctive perspective on personality development and human growth. This framework emphasizes that psychological tension and anxiety can be necessary for advanced development (Dąbrowski, 1964, 1996). Dąbrowski viewed this tension or disintegration as positive, as it can lead to personal growth and progress across five levels of development (Dąbrowski, 1964, 1996). It is important to note that not everyone progressed through all five levels; Dąbrowski stated that most individuals would not reach level four, and even fewer would reach level five. This perspective differed from other developmental theories of his time, considering innate hereditary influences, external forces and the role of emotions in the development and developmental potential of individuals.

According to Dąbrowski, developmental potential included: 1) the genetic blueprint of the individual, 2) the social and environmental influences, 3) the autonomous forces also known as the Third Factor, 4) the five forms of overexcitabilities, and 5) special abilities and talents. In Dąbrowski's five levels of human development (TPD), he described development and behaviors as levels within levels. Unlike other human development theories, Dąbrowski's levels are not linear-sequential. It was at level three, evident by the combination of three or more overexcitabilities, including emotional, intellectual, and imaginal, that Dąbrowski noticed distinct developmental differences. It was also where evidence of the Third Factor surfaced; strong autonomous forces such as self-initiation, self-direction, and self-education surfaced. The simultaneous combination of the *primary overexcitabilities* (emotional, intellectual, and imaginal) propelled by *secondary overexcitabilities* (psychomotor and sensual) produced more complex, self-driven, higher-level overexcitabilities. Dąbrowski believed that emotional OE was the core overexcitability that led to the developmental influence of all five overexcitabilities (Dąbrowski, 1964, 1996).

Overexcitabilities and the Gifted. Overexcitabilities are a concept within the TPD that refers to heightened responses to stimuli across five domains: intellectual, imaginal, psychomotor, sensual, and emotional (Dąbrowski, 1972). These five forms, along with an individual's special talents or abilities and a drive toward autonomous growth, contribute to one's developmental potential (Dąbrowski, 1964). Although overexcitabilities and TPD are not exclusive to gifted individuals, parents, counselors, and other professionals working with this population who define giftedness as asynchronous development are often drawn to Dąbrowski's work (Lind, 2000). Proponents of Dąbrowski's work emphasize the importance of viewing OEs through the lens of TPD. Overexcitabilities should be understood as part of an individual's development, alongside talents and abilities, and are connected to their developmental potential. OEs affect how individuals experience and express emotions, relate to others, and manage intensity in daily life. An important finding in the overexcitability literature is that individuals with intellectual overexcitability are often associated with heightened central nervous system responsiveness (Chang & Kuo, 2013; Renati et al., 2023), which may be linked to a range of psychological and physiological outcomes (e.g., anxiety, allergies, asthma).

Highly intelligent individuals often exhibit higher levels of overexcitabilities (OEs), particularly in intellectual, emotional, and imaginal domains (De Bondt & Van Petegem, 2025; Harrison & VanHaneghan, 2011; Winkler & Voigt, 2016). Gifted children consistently score higher on OE measures than their non-identified peers (Adi & A'ron, 2023; Bouchet & Falk, 2001; Piirto & Fraas, 2012), with highly gifted individuals showing both higher OE means for all five OEs and OE profiles with more OEs compared to other students (De Bondt & Van Petegem, 2025; Gallagher, 2022; Guilbault et al., 2024 & 2025; Steenbergen-Hu, 2017; Wood et al., 2024). Gallagher (2022) found that 40% of highly gifted middle school students scored high on three or more OEs, suggesting distinctions between gifted and non-identified students and between mildly/moderately gifted and HG/PG groups. Wood et al., (2024) found that 76% of the highly–profoundly gifted children studied had three or more high overexcitabilities on the OEQ-II, adapted. Studies have linked OEs in gifted students to sleep issues, fear of the unknown, and death anxiety (Harrison & VanHaneghan, 2011). Some studies have also suggested that the number and levels of OEs have an impact on their overall experiences with emotional intensity (Mendaglio, 2012; Tillier, 1998; Wood et al., 2024). According to Mendaglio (2012):

All five forms of OE are necessary for producing the type of interpersonal and intrapersonal conflict essential for development in the TPD. Individuals' development begins with experiences of such conflicts and evolves when individuals transcend the dictates of the social environment and biological drives (p. 212).

Overexcitabilities and Openness to Experience. While Dąbrowski's Theory of Positive Disintegration provides a framework for understanding OEs as integral to advanced development, debate persists regarding their use and interpretation. Critics of the use of OE in gifted education research claim that the construct can be better measured and explained through other theories of personality development, such as the Five Factor Model (FFM), and report overlap between OEs and openness to experience (see Vuyk et al., 2016). Openness to experience (OtE) is one of five personality traits in the FFM (i.e., the Big Five) that describes an individual's receptiveness to new ideas, different perspectives, and experiences (McCrae & Costa, 1997). Extensive research across multiple fields has examined OtE in creative and gifted individuals (Gallagher, 2022; Guilbault et al., 2024; Vuyk et al., 2016; Ziegler et al., 2012). This extensive body of knowledge provides strong evidence that OtE is greatly heritable (e.g., 0.57; Bouchard & McGue, 2003) and is related to intelligence (Limont et al., 2014; Stanek & Ones, 2023; Ziegler et al., 2012). OtE can be observed during the early childhood years (Abe, 2005; Asendorpf & van Aken, 2003; Gallagher, 2025). Abe (2005) noted that openness in preschool students was observable by advanced play patterns at age 5 and Asendorpf and van Aken (2003) reported that openness observed during preschool could predict future academic achievement. Researchers have found that OtE is related to both creativity and intelligence, and therefore there is a large body of research investigating personality factors and OtE among creatively and intellectually gifted individuals (i.e., Gallagher, 2022; Puryear et al., 2017; Vuyk et al., 2016; Ziegler et al., 2012). Ogurlu and Özbey (2021) reported that OtE is the only Big Five Factors that distinguishes gifted individuals from others and Lebuda et al. (2021) stated that OtE is the greatest predictor of creative achievement [across domains]. Some researchers believe that openness can be increased in individuals through training (Van Allen &

Zelensky, 2018) and exposure to different cultures (Schwaba et al., 2018), especially when an individual has a self-directed goal to increase or decrease a trait (Stieger et al., 2021).

Highly and profoundly gifted individuals, and those practitioners who study and work closely with the highly and profoundly gifted population, find Dąbrowski's theory resonates and explains best the distinct development documented in highly and profoundly gifted individuals (De Wit & Wood, 2025). Studies have consistently found differences in OEs between gifted and non-identified students, especially in intellectual, emotional, and imaginal domains. Moreover, evidence suggests that highly gifted individuals may exhibit more pronounced OE behaviors and more "high" OE mean scores compared to their moderately gifted peers and compared to non-identified students. However, research specifically focusing on young HG/PG children remains limited. In summary, the literature on OEs in gifted individuals presents a complex and sometimes conflicting picture.

Importance of the Study

Given the potential implications of intensities and overexcitability profiles for optimal social-emotional development, parenting, counseling, educational planning, and overall well-being, there is a clear need for targeted investigation in this exceptional population. The present study, which examines OEs in young HG/PG children, aims to address a gap in the literature and contribute to our understanding of how these traits and behaviors manifest in childhood, potentially informing early intervention strategies and parenting approaches.

Problem of Study

Qualitative studies of intensity, personality, and overexcitabilities among the HG/PG population are lacking in the literature, particularly those focusing on children younger than adolescents. The voices of parents of younger HG/PG children are therefore missing. This exploratory study aims to investigate parents' perspectives of overexcitabilities and related behaviors in young, highly and profoundly gifted learners. The following research questions guided this study:

- Research Question 1: What emotional, intellectual, imaginal, psychomotor, and sensual overexcitabilities are observed in HG/PG children ages 5-8 years by their parents?
 - Sub question: What are the OE profiles of these children?
- Research Question 2: How do parents of HG/PG children ages 5-8 years describe their child's social-emotional development and related behaviors?

These questions allow us to focus on the qualitative traits that parents observe in their highly to profoundly gifted children from an early age. In this study, we investigate traits among a subset of gifted learners to inform future research and practice.

Method

Research Model

This exploratory study employed a qualitative phenomenological study design with embedded quantitative elements to examine parents' perceptions of intensities and overexcitabilities in highly and profoundly gifted children (Fisher & Stenner, 2011; Maxwell, 2010). A phenomenological approach was selected for two reasons. First, a phenomenological design incorporating semi-structured interviews is well-suited for exploring complex phenomena within their real-life contexts, making this design ideal for examining the nuanced interplay between giftedness and overexcitabilities experienced within families. Second, the embedded quantitative element (e.g., ElemenOE survey) allowed triangulation of data and a deeper understanding of each child's unique profile. This approach facilitated the integration of qualitative interview data with quantitative overexcitability measures, providing methodological triangulation that strengthened the validity of insights gained from each case (Creswell & Plano Clark, 2018).

Participants and Sampling

The current study is considered phase 2. In phase 1, after obtaining Institutional Review Board (IRB) approval, participants from across the United States were recruited via email from national gifted organizations that require

documentation of standardized intelligence test scores in the top 2%-ile or greater for membership. In phase 1, 132 parents of mildly gifted to profoundly gifted children completed the ElemenOE survey online. In the current study, phase 2, participants were selected using purposive sampling from the initial study. Out of the respondents in phase 1, 63 participants reported their child as highly or profoundly gifted with an IQ score of 145 or greater (e.g., WISC-V). The inclusion criteria stated: (a) parents had a child who had been formally identified as highly to profoundly gifted with an individual standardized intelligence test score three or more standard deviations above the norm (e.g., WISC-V full-scale IQ ≥ 145) and (b) their HG/PG child was between the ages of five and eight. Fifteen parents were invited to participate in interviews based on their child's gender, age, and geographic region of residence for a diverse sample. Fourteen parents completed the study, representing fourteen children (including one set of twins). Saturation was reached with this sample. See Table 2.

Table 2. Characteristics of participants' children

Student	Student's Gender	Age	Race	Parent Participant
S1	M	8	Asian	mother
S2	M	8	White	mother
S3	M	8	White	mother
S4*	M	7	White	mother
S5*	F	7	Asian	mother
S6	M	8	White	mother and father
S7*	M	6	White	mother
S8	F	7	White	father
S9	F	8	Black	mother
S10	F	6	Mixed	father
S11	F	6	White	mother
S12	F	6	Asian	mother+
S13*	F	6	Asian	mother+
S14*	M	5	Mixed	mother

Note. M = male, F = female; * IQ test results 160 or greater. + = mother of S12 and S13 (fraternal twins).

The students' ages ranged from 5 to 8 years ($M = 6.86$). All except one (S9) identified as non-Hispanic or Latino. Their racial demographics are as follows: Asian ($n = 4$, 28.6%), African American/Black ($n = 1$, 7.1%), White ($n = 7$, 50%), and more than one race ($n = 2$, 14.3%).

Instruments

ElemenOE Questionnaire

The ElemenOE is a 30-item questionnaire created by Bouchard (2004) used to measure the occurrence of greater-than-typical emotional, intellectual, imaginal, psychomotor, and sensual responses of the nervous system (overexcitabilities). This instrument was selected because it can be quickly completed by parents or educators to assess Dąbrowski's five overexcitabilities in elementary school students under age 13. The author granted permission for its use. Respondents used a five-point Likert scale to answer each item, with options ranging from "not observed" (1) to "much more than other children" (5). Participants rate the frequency or intensity of their child's engagement in various behaviors. Examples of questions on the ElemenOE questionnaire include: "Can become so absorbed in a topic that he/she does not want to move on to other topics," and "Judgmental about right and wrong, fair and unfair." Cronbach's alpha score for reliability of the entire scale was .856, and internal consistency for the five subscales included an alpha of .766 for intellectual OE, .738 for imaginal OE, .664 for sensual OE, .765 for psychomotor OE, and .751 for emotional OE. All subscales had values that exceeded the .70 threshold recommended for acceptable internal consistency on psychological scales except sensual (Taber, 2018). The sensual OE subscale also only has four items compared to the other subscales that have between seven and 11 items. The ElemenOE questionnaire was designed to be completed by an adult based on their observation of an elementary school student.

Interview Protocol

Semi-structured interviews were conducted with parents. After reviewing the literature, an interview guide was designed with open-ended questions to probe the overarching research questions (See Appendix A). We designed follow-up prompts to elicit rich responses about parents' perceptions of their children's personalities and overexcitabilities (e.g., "On the ElemenOE, you rated your child high in *X*. Can you give me an example of *X*? What does this look like?").

Data Analysis

Descriptive statistics, including frequencies, means, and standard deviations, were calculated for the five subscales on the ElemenOE (Agresti, 2017). Student OE scores were calculated as means for each of the five traits, and an overall mean group score was used for comparison. The ElemenOE does not include guidance for cut-off scores to indicate excitable OEs; therefore, 3.5 was established as a dividing point for this study to distinguish between an average and high OE score. We chose this cut-off score in alignment with Gallagher's (2022) study, in which she used 3.5 to determine a high overexcitability on the Overexcitability Questionnaire-II (OEQ-II; Falk et al., 1999). Wood et al. (2024) also used 3.5 as a cut-off score on the Overexcitability Questionnaire II, adapted (OEQ-II, adapted; Wood et al., 2024) to determine high overexcitability in an international study of 88 highly-profoundly gifted children ages 4-13 years. Individual student OE profiles were determined based on a score of 3.5 or greater, which we used as the cut-off for a "high" score.

Interview data were analyzed using a five-phase thematic analysis process (Bingham, 2023). Interview recordings were transcribed verbatim, and we familiarized ourselves with the transcripts by reading and re-reading each several times before coding keywords and phrases. We employed a deductive approach, using a priori codes aligned with the five OEs and FFM (Bingham & Witkowsky, 2022). We developed a codebook including code names, definitions, and examples. Codes were applied to segments of data, including phrases and sentences. Two researchers independently double-coded four transcripts that were randomly selected across participants after piloting and refining the codebook. Following best practices in qualitative reliability for conceptually close codes, we resolved discrepancies through discussion and negotiated consensus (Saldaña, 2021). After consensus, one coder completed the remaining transcripts, with periodic spot checks to ensure consistency over time. We also used memoing to record notes and thoughts throughout the process. Survey results were integrated during data collection (i.e., questionnaire results informed the design of interview questions) and during analysis (i.e., questionnaire results provided context for interpreting parents' narratives).

Data Collection and Procedures

Participants were invited to schedule a 60-minute semi-structured interview using Zoom. Before conducting semi-structured interviews, descriptive data and information regarding overexcitabilities were collected online using Qualtrics. The ElemenOE questionnaire was used to capture the existence of any overexcitabilities (greater-than-typical emotional, intellectual, imaginal, psychomotor, and sensual responses of the nervous system) in the children. The quantitative data served dual purposes: (1) providing descriptive OE profiles for each student and (2) informing the interview questions to explore parents' perceptions of traits identified through the questionnaire. Informed consent was obtained, and audio recordings were transcribed, anonymized, and reviewed for accuracy. Transcripts were sent to participants for member-checking to strengthen trustworthiness (Creswell & Plano Clark, 2018).

Positionality

The first and second authors conducted interviews and analyzed the data. The primary author is a former teacher of the gifted and a current professor of gifted education. She is a former gifted student and parent of a profoundly gifted young adult. She has experience conducting qualitative research and has worked with hundreds of families with gifted children. The second author is a public school teacher and adjunct professor of gifted education and learning theory. The third author is a former homeschool parent, educator, and facilitator. She implemented educational programs to meet the unique needs of highly-profoundly gifted children and adolescents and has experience conducting international research. We acknowledge that, as education professionals and parents of gifted children, we may share similar experiences with our participants; therefore, we used memoing and bracketing to enhance reflexivity.

Data Trustworthiness

To ensure trustworthiness of findings in qualitative research, four criteria must be addressed: credibility, transferability, dependability, and confirmability (Guba, 1981). Member checking of transcripts and probing of participant responses were used to ensure credibility. Description of findings using illustrative quotes and survey responses was used to achieve transferability of findings to similar children. Rigorous data collection techniques and documentation were followed to ensure dependability. The researchers used memoing, reflexivity, and bracketing to unpack potential personal biases. A spreadsheet was used to record and document codes and categories during the analysis process to ensure confirmability.

Results

Overview

In this section, we present descriptive results from the ElemenOE questionnaire followed by qualitative findings with illustrative quotes from the interviews, which address the research questions.

RQ 1: What emotional, intellectual, imaginal, psychomotor, and sensual overexcitabilities are observed in HG/PG children ages 5-8 years by their parents? What are the OE profiles of these children?

Overexcitability Frequencies and Profiles

To answer the first research question, overexcitability frequencies were measured using the ElemenOE. This quantitative data provides descriptive information that complements the semi-structured interview findings. The ElemenOE instrument produces average scores across five of the Dąbrowskian overexcitabilities. The scale uses Likert scores from “not observed” (1) to “much more than other children” (5). The mean subscale scores for the children were categorized into three categories: low, average, and high. Low represents a mean score range of 0-2.49; average represents a mean score range of 2.5-3.49, and high represents a mean score of 3.5-5. Students were then categorized by the number of high OEs in their profiles. Mean scores for each of the five OEs were calculated for the group of 14 HG/PG children. Table 3 presents the descriptive statistics for the ElemenOE survey and Figure 1 displays the minimum, maximum, and average score for the group.

Table 3. ElemenOE Descriptive Statistics (N = 14)

Overexcitability	Min.	Max.	<i>M</i>	<i>SD</i>
Psychomotor	3.00	4.67	4.08	0.63
Intellectual	3.64	5.00	4.55	0.39
Emotional	3.00	4.83	4.30	0.50
Sensual	2.50	5.00	3.95	0.69
Imaginational	2.00	5.00	3.90	0.93

Note. Participants rated statements on a 5-point Likert scale.

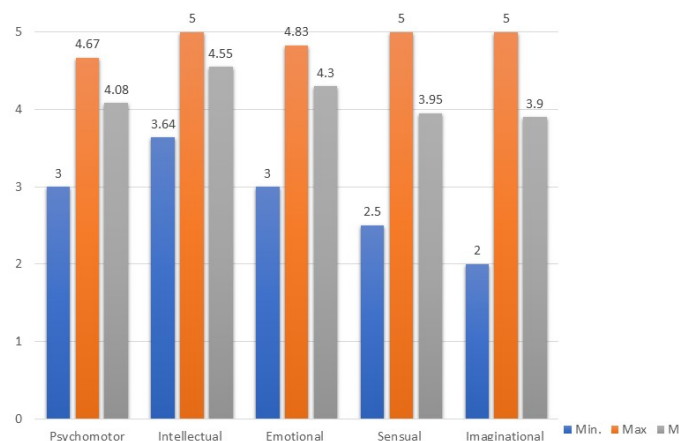


Figure 1. Minimum, Maximum, and Mean OE Scores (N = 14)

Mean scores of the HG/PG group for all five OEs fell into the “high” range, with a score above 3.50. Individual scores are displayed in Table 4. Overall, the average scores for the group of HG/PG students ($n = 14$) were as follows:

intellectual OE ($M = 4.55$, $SD = 0.39$), imaginal OE ($M = 3.90$, $SD = 0.93$), emotional OE ($M = 4.30$, $SD = 0.53$), psychomotor OE ($M = 4.08$, $SD = 0.63$), and sensual OE ($M = 3.95$, $SD = 0.69$).

Next, individual OE profiles and mean scores for each of the five OEs were determined. Seven of the 14 students displayed high OEs for all five forms (emotional, intellectual, imaginal, psychomotor, sensual). Five of the students had four high OEs, one student displayed three high OEs (intellectual, psychomotor, and emotional), and one student displayed two high OEs (intellectual and imaginal). All students except one had three or more high OEs in their profiles, as displayed in Table 4. The profile of five high OEs represents the largest number of students ($n = 7$) from the sample ($n = 14$).

Half of the students (e.g., S1, S2, S3, S8, S9, S13 and S14) had OE profiles with high mean averages for all five OEs ($n = 7$; 50%) as displayed in Table 4. This indicates a generally heightened responsiveness to stimuli across a wide range of experiences for these children. The group with this OE profile includes four males and three females. This group showed a higher means across all five OEs: intellectual OE (4.66), imaginal OE (4.38), sensual OE (4.14), psychomotor OE (4.43), and emotional OE (4.52) when compared to the overall HG/PG group means.

Table 4. Element Descriptive Statistics by Student (N = 14)

Student	Age/gender	Overexcitabilities					TOTAL
		Intellectual <i>SD</i> = 0.39	Imaginational <i>SD</i> = 0.93	Sensual <i>SD</i> = 0.69	Psychomotor <i>SD</i> = 0.63	Emotional <i>SD</i> = 0.53	
S1	8, M	4.73 (H)	5.00 (H)	5.00 (H)	4.67 (H)	4.67 (H)	5 OEs
S2	8, M	4.73 (H)	4.67 (H)	4.50 (H)	4.67(H)	4.67(H)	5 OEs
S3	8, M	4.91 (H)	4.33 (H)	3.75 (H)	4.17 (H)	4.83 (H)	5 OEs
S4*	7, M	4.45 (H)	3.33 (A)	3.50 (H)	4.67 (H)	4.33 (H)	4 OEs
S5*	7, F	4.09 (H)	4.67 (H)	3.50 (H)	3.17 (A)	4.33 (H)	4 OEs
S6	8, M	4.91 (H)	3.00 (A)	4.50 (H)	3.50 (H)	4.50 (H)	4 OEs
S7*	6, M	4.64 (H)	2.00 (L)	4.75 (H)	3.83 (H)	4.17 (H)	4 OEs
S8	7, F	4.00 (H)	4.67 (H)	3.75 (H)	4.50 (H)	4.00 (H)	5 OEs
S9	8, F	4.73 (H)	4.00 (H)	4.00 (H)	4.50 (H)	4.67 (H)	5 OEs
S10	6, F	3.64 (H)	2.33 (L)	3.00 (A)	4.67 (H)	4.67 (H)	3 OEs
S11	6, F	4.73 (H)	4.00 (H)	4.50 (H)	3.33 (A)	3.50 (H)	4 OEs
S12	6, F	4.64 (H)	4.67 (H)	2.50 (A)	3.00 (A)	3.00 (A)	2 OEs
S13*	6, F	4.55 (H)	3.67 (H)	4.00 (H)	3.83 (H)	4.00 (H)	5 OEs
S14*	5, M	5.00 (H)	4.33 (H)	4.00 (H)	4.67 (H)	4.83 (H)	5 OEs
Mean		4.55 (H)	3.90 (H)	3.95 (H)	4.08 (H)	4.30 (H)	

Note. M = male, F = female. Mean scores of 0 – 2.49 were rated as “low,” scores ranging from 2.50 – 3.49 were rated as “average,” and a score ranging from 3.5 – 5 was rated as “high.” These are designated in parentheses as L = low, A = average, and H = high.

Five students (e.g., S4, S5, S6, S7, and S11) scored high in four overexcitabilities. This group comprised three males and two females. They consistently showed high scores in intellectual, sensual, and emotional OEs (see Table 4). The fourth high OE varied: Students S4, S6, and S7 (all males) had high psychomotor OE, while Student S5 (female) had high imaginal OE. All the male children had high mean scores for all OEs except imaginal OE (mean scores ranged from 2.00 to 3.33), and the female students had high mean scores for all OEs except psychomotor OE ($M = 3.17$). Two of these students were identified as twice exceptional (S4 with ADHD; S5 with central auditory processing disorder and anxiety).

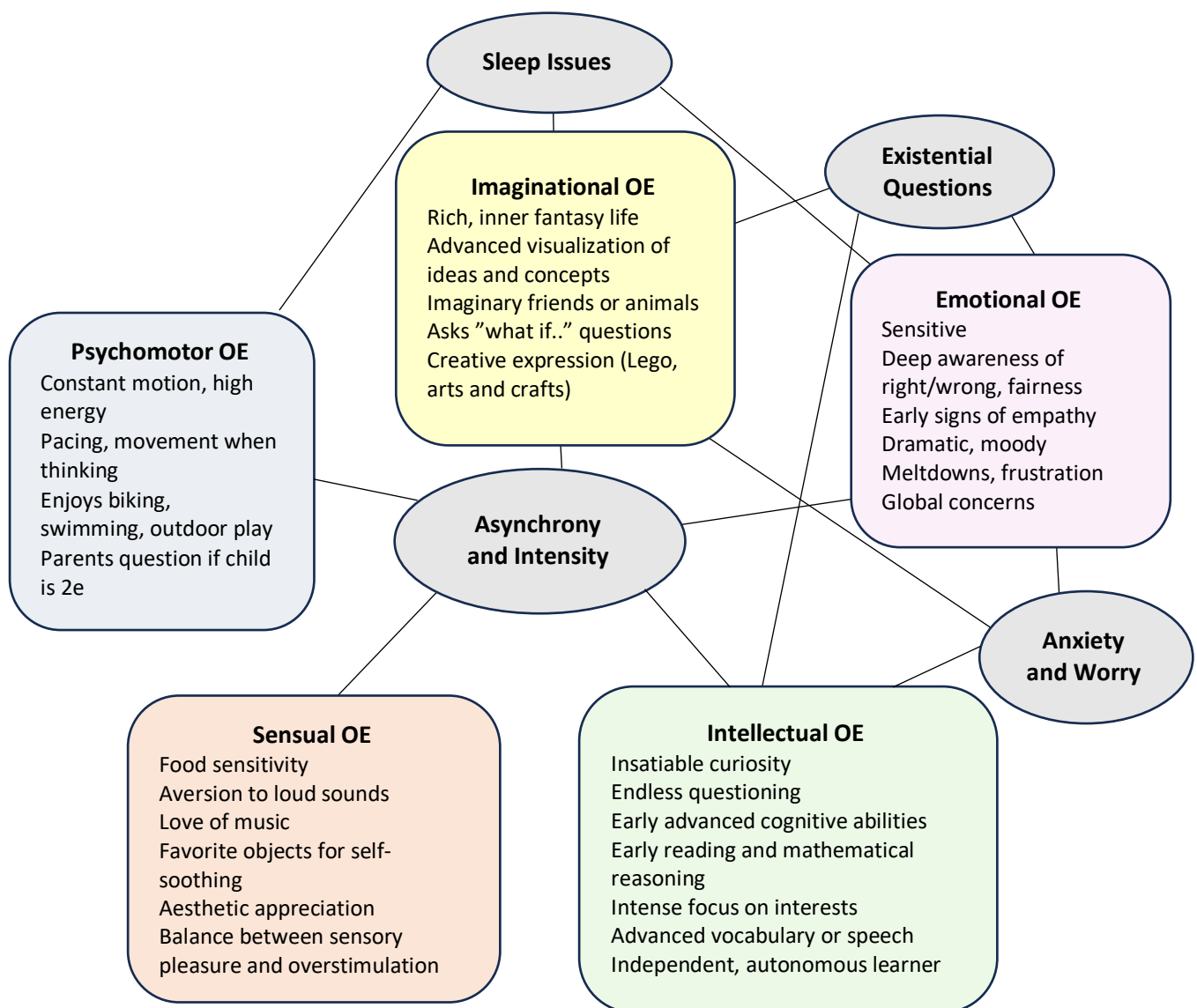
Only one student (S10) scored high on just three OEs. This six-year-old female displayed the highest mean OEs in emotional ($M = 4.67$) and psychomotor OE ($M = 4.67$), followed by intellectual OE ($M = 3.64$). Her sensual OE mean score fell in the average range ($M = 3.00$), and her imaginal OE mean was considered low ($M = 2.33$) as displayed in Table 4. Her sensual OE was average, and her imaginal OE was low.

One female student displayed fewer than three OEs in their profile (S12, age 6) as displayed in Table 4. Her highest mean scores were imaginal OE ($M = 4.67$) and intellectual OE ($M = 4.64$). She scored in the average range for the remaining three OEs, although her mean score for sensual OE ($M = 2.50$) was just above the cut-off for low scores (2.49 or lower).

RQ 2: How do parents of HG/PG children ages 5-8 years describe their child's social-emotional development and related behaviors?

Qualitative Findings from Interviews

To answer research question two, semi-structured interviews were used. Results from the ElemenOE questionnaire guided the interview questions. For example, if a parent reported their child with a high score in emotional OE, additional questions were used to probe these behaviors. For instance, "Tell me more about a time when your child showed empathy for others." This allowed the researchers to uncover descriptive and contextual data specific to the children's overexcitability behaviors and traits. Figure 1 presents a visual mind map summarizing these interrelated traits and overarching manifestations.



Note. The five color-coded circles represent Dabrowski's (1972) overexcitability domains—intellectual, imaginal, emotional, psychomotor, and sensual—derived from parents' qualitative descriptions. The outer orbit illustrates cross-domain manifestations such as anxiety, existential questioning, asynchrony, sleep issues, and overall intensity.

Figure 1. Thematic Mind Map

Highlights from the interviews, along with illustrative quotes, are presented with students grouped by OE profile (e.g., two to five high OEs). Parents' qualitative descriptions of their children's social and emotional characteristics were organized thematically according to Dabrowski's five overexcitability domains.

Five OEs. When discussing intellectual OE with the parents of students who scored high in all five OEs, their examples aligned with items that corresponded to intellectual OE behaviors on the ElemenOE questionnaire. A consistent theme that was found among the parents was their child's intense ability to focus on tasks or projects of personal interest, often to the point where it was difficult to get them to stop what they were doing and change activity. Most parents stated that their child showed advanced abilities, often as infants or toddlers, and in all cases, by preschool. Examples mentioned by parents included completing complex puzzles; speaking in long phrases and using advanced vocabulary; constructing Lego kits suitable for much older children; and demonstrating advanced reading ability. The parents described their children as independent and autonomous learners. One parent spoke about the asynchrony between her child's (S9) maturity and experience:

She was always a precocious child. She demonstrated a sort of more mature personality. I guess right now, because she's eight years old, she thinks she's 15, but there are some behaviors that show she's still a kid. When it comes to some things like emotional regulation, she definitely still struggles with it. (Personal Interview)

Emotional OE behaviors described by the parents included sensitivity, intensity, and empathy. One caregiver noted how in tune his daughter (S8) was with other people's emotions, even as a toddler. Two fathers both used terms like "moody," "dramatic," and "very emotional" to describe their HG/PG daughters, but one acknowledged that this might be a stereotype, and he was cautious about making such a generalization. One theme that emerged in all cases of the children with all five OEs was the children's expression of concern or worry regarding existential ideas and death. As one caregiver (S8) stated, "At age four or five, she had a whole death phase" (Personal Interview). Behaviors described by parents related to emotional OE and imaginational OE included rich inner fantasy lives, heightened awareness of global issues, and greater sensitivity and empathy for others. Parents noted that these characteristics stood out to them as indicators of their child's precocity from an early age.

All of the HG/PG gifted students in the group had high mean psychomotor OE scores and were described by their parents as needing constant motion or being "high energy." Three parents mentioned the overlap between HG/PG traits, attention deficit hyperactivity disorder (ADHD), and autism spectrum. They all questioned the overlap and dual or misdiagnosis. For example, S9's caregiver shared:

She's always been a high-energy kind of child. And I noticed over the years; I know these kinds of things overlap between very gifted kids and some ADHD traits and autistic traits. And it's a bit of that kind of merging, but until you're a bit older, you can see where they really... it pulls apart. So, right now, I will say she definitely is an overexcitable kid in some ways. I think I noticed she can be super hyper-focused on things, but at the same time, she can also get quite wiggly and fidgety on different tasks, especially less preferred tasks. (Personal Interview)

Four OEs. One of the three male students with high mean scores for each OE except imaginational, S4 (age 7) was reported to have extreme sensitivity to sound, avoiding very loud noises. This student enjoys making complex games with complicated rules, often resulting in arguments with same-age classmates. He was described by his second-grade teacher as being stubborn, lacking flexibility and the ability to consider other people's perspectives, and showing an intense sense of justice over what he believed to be "right," "wrong," or "fair." He stands out among his classmates for his unwavering desire to learn, his insatiable curiosity, and his endless questioning. His parent reported that he is often misunderstood and lacks experience and self-advocacy skills due to his age.

One of the other boys, S6 (age 8), appeared to exhibit constant frustration from the age of two. He did not enjoy being in a car, for example, and was often emotionally drained from films to the point where he would easily cry and need to leave the room. He demonstrated precocity from an early age in several areas of ability, including number sense, computer games, and reading. However, his parents reported that the teachers would send home reports about these

various fundamental skills he was unable to perform. His parents stated that they realized he was hiding his abilities in school and was severely under-challenged. He shows deep empathy and enjoys schedules and routines. This student copes with frustration and overstimulation by engaging in activities such as playing outside, walking the dog, and pacing.

A six-year-old male student, S7, was described by his mother as a happy and friendly child with a variety of intense interests and a strong competitive streak. He enjoys mathematics, reading, Lego, and strategy games, and showed signs of high intellectual ability as a preschooler. His mother stated that he prefers structure and routines and is “more intellectually driven than physically driven” (Personal Interview). His classroom teacher informed his parents that he is also very rule-oriented and somewhat righteous, caring deeply about fairness and following the rules. One of the social-emotional challenges that his caregiver was concerned about is his extreme inflexibility and how easily he gets overwhelmed and overstimulated in some environments. His caregiver sought a child psychologist to help the family navigate his meltdowns and sensitivity.

One of the female students in this group (S5, age 7) was described by her mother as being very imaginative and quirky. Her main interests include piano, computer programming, logic puzzles, and mazes. Her teacher and classmates have described her as extremely intelligent, yet talkative and bossy in school. Her mother expressed a desire for her to self-advocate more when she feels bored. She is also described as a worrier with irrational fears, such as volcanic eruptions, when she lives in New England. Her anxiety and worry have also interrupted her sleeping patterns, which was another concern of her parents.

Three OEs. One student (S10, female, age 6) scored high in three OEs (intellectual, psychomotor, and emotional). She is interested in reading, swimming, and riding her bicycle, and enjoys mastering new things, according to her father. Her father stated that he noticed her alertness from birth. When asked when he realized she might be advanced, he stated,

Probably day two [after birth]. She was aware of life around day two, we haven’t seen that before...like just taking it all in. She was actively paying attention to things around her environment and looking at, hey, someone came in here. I don’t think I’ve seen any babies as aware until they’re maybe four or five months old usually. (Personal Interview)

She was also described as not sleeping as much as her parents would like, often staying up reading until 11:00 PM. Her father stated that she gave up napping at age one and believed this was because she was very aware of her surroundings and focused on what was happening around her. This behavior was described as challenging and exhausting for her parents.

When asked to provide an example of a few select high ratings on the ElemenOE in intellectual and Emotional OE, this father reported that her first words were entire phrases and that neighbors seemed shocked by this unusual verbal ability from a 12-month old. Interestingly, despite her early advanced verbal skills, her father stated that she had developed difficulties expressing herself around age two to three, which led to her frustration with being unable to communicate effectively. According to her father, “she had a lot more going on in her mind than she could communicate” (Personal Interview). At age six, she had an individual education plan (IEP) in school for speech. In discussing examples of her emotional OE, S10’s father shared that she learns things rapidly and after she masters things, “she gets fixated on wanting things to be a certain way or she does not like it” (Personal Interview). This sometimes leads to melt downs, but her father said he believes she “holds it together outside of the home” (Personal Interview). Her parents found that reasoning with her and encouraging her to spend time alone after school to decompress were effective strategies to support her emotional regulation.

Two OEs. Only one student in the study had fewer than three high OEs (imaginational and intellectual) in her profile (S12) as displayed in Table 4. For comparison, this six-year-old female’s fraternal twin sister displayed all five OEs. She enjoys reading and can entertain herself for long periods of time. Her mother described her as the easiest of her three children because she “doesn’t have these super strong emotions” (Personal Interview). Compared to her siblings, who are also identified as HG/PG, she demonstrates the most persistence with tasks and the most autonomy. This behavior was also described as “stubbornness” by her mother, who talked about how difficult it is to get her to break away from

activities to do something else, such as come to dinner or get ready for an outing. This extreme focus on tasks she enjoyed was evident by the age of two or three. She would sit and complete 400-piece puzzles by herself with great concentration and focus. Her mother described her as being “very intense in the things she enjoys doing. She will sit there for hours doing the same thing over and over again if it is something she likes” (Personal Interview).

In addition to S12’s high intellectual OE traits, her mother also provided examples of a strong imaginal OE and creativity. She said, compared to her other two gifted children, S12 stands out for how she is able to “utilize her visualization and her hands” (Personal Interview). This six-year-old student enjoys learning from YouTube and creating crafts, which she quickly picks up. Her drawings are advanced for her age and show unique perspectives.

Discussion

Parents of HG/PG children ages 5–8 described patterns of multi-domain intensity aligned with elevated ElemenOE scores, especially in intellectual, emotional, and psychomotor domains. These intensities were not isolated traits but cross-domain experiences (e.g., existential worry, sleep disruption, rapid learning coupled with emotional reactivity) that parents navigated daily. The prevalence of three or more high OEs in 93% of the sample suggests that, even in early childhood, HG/PG development involves intertwined cognitive and emotional growth, influencing family routines and early school experiences.

In this study, all five-forms of overexcitability: emotional, intellectual, imaginal, psychomotor, and sensual, were observed and described by the parents of the HG/PG children studied. According to the results of the ElemenOE questionnaire, all five-forms of overexcitability made-up the most prevalent OE profile among the HG/PG children studied ($n = 7$, 50%). Wood et al. (2024) also found all five-forms of overexcitability to be the most prevalent OE profile among the 88 highly–profoundly gifted children studied. Findings from the interviews provided a glimpse of how these OEs were observed and described by parents, along with examples of their behavioral and socioemotional traits. Many of the parents reported their child’s sleep disturbances, existential concerns, and fear of death. Prior research has reported these issues to be common among older HG/PG students, suggesting that they may arise during their early development and persist somewhat into adolescence (e.g., Guthrie, 2019; Harrison & VanHaneghan, 2011; Wood et al., 2024).

Prevalence of Specific OEs

Students in this study had the highest mean scores for intellectual, emotional, and psychomotor overexcitability; however, prior researchers found intellectual, emotional, and *imaginal* OEs to be most prevalent among older gifted students (Harrison & VanHaneghan, 2011; Winkler & Voight, 2016). While the mean for imaginal OE was still relatively high for the group, our overall different findings could be explained by the different instruments used to measure OEs, the small sample in our study being composed only of HG/PG children, and the younger ages of the gifted students in the present study compared to prior research. The current study included early elementary students using the ElemenOE questionnaire, whereas previous research has more widely used a version of the Overexcitabilities Questionnaire-II (OEQ-II), mostly with older students. In comparison, Wood et al. (2024) used an adapted version of the OEQ-II, included highly–profoundly gifted children as young as 4 years of age, and reported similar findings: intellectual and emotional OEs were the most prevalent followed nearly equal by sensual and psychomotor overexcitabilities. With regard to the developmental process, prior research indicates that emotional, intellectual and imaginal OE “aid in the transformation of the lower forms of overexcitability” (i.e., sensual and psychomotor overexcitability; De Bondt & Van Petegem, 2025, p. 100).

Overexcitabilities aid the developmental process, therefore, it is important for parents, educators, and practitioners to pay attention to the developmental indicators of overexcitabilities from an early age. Recent research has demonstrated that the greater the cognitive ability of young children and adolescents, the greater the prevalence and combinations of multiple overexcitabilities (Gallagher, 2022; Guilbault, 2024; Wood et al., 2024). As vital stakeholders, parents, educators, psychologists working with highly to profoundly gifted youth must be able to recognize the prevalence of *high multiple overexcitabilities* to be able to support the developmental and developmental potential of all students. A student’s developmental process and potential are influenced by:

- Their social-emotional, physical, and cognitive development and family history
- Their social-environmental influences including learning interventions and modalities
- The student's autonomous forces such as self-direction and self-initiation (internal compass)
- The prevalence of the five-forms of overexcitabilities (motivating and propelling development)
- The student's special abilities and talents (passions and strengths).

According to Dąbrowski's theory, all of these factors, and influences make up the student's developmental process and potential. Bronfenbrenner's (2005) *Ecological Systems Theory* also supports this concept. Without training and understanding, and the ability to recognize multiple high overexcitabilities in the development and developmental potential of students, students with overexcitabilities are at high risk of being misunderstood by parents and educators and misdiagnosed by practitioners (Wood et al., 2024). Common misdiagnoses of gifted and especially highly and profoundly gifted students include attention deficit hyperactivity disorder, autism spectrum disorder, and mood disorders such as bi-polar disorder (Webb et al., 2016). In order to prevent misunderstanding, misidentification, and misdiagnosis, training and professional development specific to the unique social-emotional, psychomotor, and cognitive characteristics, behaviors, and development of highly to profoundly gifted children is recommended.

OE Profiles

The most common OE profile for the HG/PG group consisted of five OEs ($n = 7$, 50%), similar to the findings by Wood et al. (2024). According to Dąbrowski, developmental potential is most significant when all five forms of overexcitability are active (Dąbrowski, 1972). Results revealed consistent findings compared to prior research on the number of OEs displayed among HG/PG learners. For example, children in this study showed high mean scores across all five OEs (e.g., Gallagher, 2022; Guilbault et al., 2024; Steenbergen-Hu, 2017).

Previous research reported highly gifted learners with OE profiles of three or more OEs (Gallagher, 2022; Wood et al., 2024). In the mixed-methods study, Wood et al. (2024) found three or more high overexcitabilities in 76% of the 88 HG/PG children using the OEQ II, adapted, and all of the interviews, except for one, were coded for three or more overexcitabilities including emotional, intellectual, and imaginal. In the present study, thirteen of the 14 (92.9%) HG/PG children had profiles with three or more high OEs. When interviewed, the parent of the one student who had fewer than three OEs, S12, stated that her daughter was a twin and her two siblings were also identified as profoundly gifted; however, the mother intentionally volunteered this child for the study because, as a parent, she noticed this child's personality and social-emotional development to be vastly different from her two siblings, including her twin sister. Consequently, the caregiver was invited to complete the study for both twins. As the parent made comparisons between S12 and her siblings, the OEs and sensitivities of the siblings seemed much more pronounced. The two siblings appeared to have more in common with the other children in the study. It is possible that the parents' perceptions of this "easy child" were influenced by the comparison to her siblings, and she therefore rated her lower on the scale. Similarly, Wood et al. (2024) noted that if greater-than-typical development was *typical for a family*, it may go unnoticed.

The identification of overexcitabilities and OE profiles are important because recent empirical research has shown that young highly to profoundly gifted children and adolescents with three or more high emotional, intellectual, and imaginal psychomotor, and sensual overexcitabilities have greater-than-typical awareness, sensitivities, and intensities across psychosocial development and physiological experiences (Guilbault et al., 2024; Wood et al., 2024). This research highlights the unique psychosocial and physiological experience of highly to profoundly gifted students and warrants developmental and educational interventions including like-minded peers, mentors, and practitioners (De Wit & Wood, 2025) and fitting forms of acceleration (Guilbault, 2009 & 2023).

The ElemenOE results along with parent interviews provided additional support for the use of the ElemenOE questionnaire with parents of young, gifted learners. In prior studies (e.g., Bouchard, 2000 & 2004), teachers completed this scale; however, Bouchard (2000) noted that "not all of the items are easily observed by teachers" (p. 86). Taken together, the student profiles suggest that multiple, concurrent OEs in early childhood may function as a developmental catalyst enhancing curiosity, abstract thinking, and independent learning, while at the same time increasing the child's need for regulation around sleep, transitions, and sensory input. This mix of acceleration and intensity may help explain

why families often describe both rapid mastery and periods of disequilibrium (or asynchrony), highlighting the need for early, strength-based supports rather than deficit-focused responses. Implications of this study include support for the use of the ElemenOE with parents and educators.

Conclusion

This study provided valuable insights into parents' observations of overexcitabilities in young, highly to profoundly gifted children. Findings revealed that parents perceived their HG/PG child to display intense and frequent overexcitabilities, reporting high mean scores across three or more OEs, and half indicating high mean scores across all five domains. These findings aligned with prior research suggest a strong link between high cognitive ability and heightened overexcitabilities. Parents also discussed their child's advanced abilities as infants and toddlers and their tendencies to be independent and autonomous learners from a young age. These interviews provide a glimpse into the development of HG/PG children and the value of caregiver's perceptions of their social-emotional development.

The study also highlights the potential for misdiagnosis if overexcitabilities are not understood within the context of giftedness. Behaviors related to psychomotor, sensual, and imaginal OEs, for example, can overlap with symptoms of attention deficit hyperactivity disorder (ADHD) (Webb et al., 2016). Educators, administrators, and counselors should be aware of this potential overlap and consider the possibility of giftedness when assessing children displaying such traits (Guilbault & Kirsch, 2020). Instead of solely focusing on perceived deficits, a more comprehensive understanding that includes the lens of overexcitabilities can lead to more appropriate educational and support strategies. For HG/PG children, this may involve acceleration, access to cognitive peers, and differentiated instruction that caters to their intense intellectual curiosity. Parents may need guidance on managing their child's emotional intensity and addressing existential concerns that can emerge at a young age.

Recommendations

Recommendations for Educators, Parents, and Counselors

Parents play a critical role in their gifted child's development and require support in understanding and nurturing their child's developmental potential. Collaboration between parents and educators is crucial in creating environments that celebrate strengths while addressing challenges arising from these intensities, such as providing opportunities for in-depth exploration of interests. Classroom teachers can support young HG/PG students with high (or many) OEs by first learning about their emotional intensities and then providing opportunities to explore their interests in an environment that celebrates strengths while addressing potential challenges arising from their OEs. For example, teaching stress management techniques and mindfulness strategies to reduce anxiety may be helpful (Tolan, 2017).

Understanding emotional intensities, heightened sensitivities, and potential existential concerns can help educators and parents avoid misdiagnosing overlapping behaviors associated with learning differences and disabilities. Instead, they can provide tailored strategies for nurturing their developmental potential, as well as knowing when it may be necessary to refer families to specialists for further consultation. For instance, Rinn and Reynolds (2012) reported that there is a strong relationship between psychomotor, sensual, and imaginal OEs and Attention Deficit Hyperactivity Disorder (ADHD). Using tools like the ElemenOE in school provides an opportunity for collaboration with parents. Trained educators and counselors can share results with families and discuss ways to support emotional intensities and curiosity at home. However, the ElemenOE should be used as a screening and conversation tool and not as a diagnostic measure on its own. It is important to recognize that ElemenOE scores may reflect cultural norms (e.g., emotional expression and activity) and should therefore be interpreted with caution and collaboratively with caregivers to avoid pathologizing intensity when it aligns with advanced development. Our recommendations for applying the ElemenOE in practice are as follows:

In schools. Have both a teacher and caregiver complete the ElemenOE and compare results across domains to identify shared and setting-specific patterns. Teachers then look for high OEs to provide needed supports. For example, for students with high intellectual OE, they may need to compact or accelerate content and provide independent projects.

Students with high emotional OE may need to be taught co-regulation strategies or provided predictable routines. Those with high psychomotor OE may benefit from additional movement breaks and hands-on learning.

At home. Parents can use results from the ElemenOE to guide routines and support at home. For instance, children with high emotional OE can be taught to name and normalize their feelings and may need parents to provide brief “reset” plans after school. Children with high psychomotor OE can be provided daily outdoor play after school to decompress. And those with high imaginational OE benefit from creative outlets at home, along with gentle scaffolds to help them transition smoothly between imaginative and structured activities.

For educators, parents, and counselors, the findings of this study underscore the importance of recognizing the heightened intensities characteristic of young highly to profoundly gifted (HG/PG) children. The prevalence of high mean scores across multiple overexcitabilities, with many children exhibiting high scores in three or more domains, suggests that these children experience the world with greater sensitivity and depth. According to Renati et al. (2023), “Parents of gifted children seem to fully recognize the uniqueness of their children, but only a few understand their child’s ability profile and emotional peculiarities. Therefore, they may struggle to manage the child and meet his needs” (p. 3). Educators need to understand that a child’s intense focus on a topic, strong emotional responses, or high levels of physical energy are not necessarily behavioral issues but could be manifestations of their innate overexcitabilities as described in Dąbrowski’s Theory of Positive Disintegration. Parents can gain insight into their child’s intensities and overexcitabilities, recognizing them as part of their gifted profile. Counselors can utilize this knowledge to help HG/PG students, and their families, navigate these intensities and support their social-emotional development.

Recommendations for Future Research

Future research can provide a more expansive understanding of intensities in highly to profoundly gifted children by considering key factors such as age, gender, and the presence of twice-exceptionality. For example, age may impact OEs across different developmental stages. The current study focused on fourteen young children (ages 5-8) in contrast to older children, such as middle school and/or high school students.

Following HG/PG children over time, perhaps from early childhood into middle school and beyond, would allow researchers to investigate if and how their OE profiles evolve as they mature. Employing mixed-methodological approaches in larger-scale longitudinal studies combining quantitative measures with qualitative data gathered through interviews with children, parents, and educators could provide a more comprehensive and nuanced understanding of the lived experiences and the dynamic relationships between OEs and other factors in the development of HG/PG learners.

Furthermore, future research could explore various aspects of one’s cultural background (e.g., norms, values, expectations) and their impact on OEs and the development of personality traits. Similarly, differences across educational settings (e.g., accelerated learning opportunities, full-time inclusion model, social-emotional support) could interact with OEs to intensify sensitivities or even promote coping strategies. While this study included students identified as twice-exceptional ($n = 5$), the additional complexity introduced by the presence of learning differences or disabilities may significantly alter the dynamics between OEs and personality. These recommendations for future study will provide a more nuanced and comprehensive understanding of the multifaceted factors shaping the development of HG/PG children.

Limitations of the Study

This study has several limitations. First, parents self-reported their child’s level of giftedness, and no assessments were collected to confirm the results. The small sample selected for the interviews consisted of families with children who were members of a well-known organization that supports profoundly gifted learners. This organization requires the submission of official, prior evidence; therefore, we felt these participants could accurately report their young child’s results from their recent intelligence testing. While the tests administered to these children varied (e.g., WISC-V, SB-5), they are all valid and reliable tests with current norms, given the child’s age and the duration of the assessment. Additionally, participants were recruited through U.S. organizations, and all families except one resided in the United

States. While there was cultural and linguistic diversity among the parents, their children each had or were attending U.S. schools during their early elementary years. ElemenOE responses and parent narratives may be shaped by cultural norms around emotion, activity, and schooling. Transferability to other cultural contexts should be made cautiously, and cross-cultural validation of ElemenOE use with parents is needed.

We also note the limitation of many OE measures, including the ElemenOE, in lacking norms across different IQ levels, as these instruments are often normed on general populations and moderately gifted samples. While this study compared HG/PG children to a broader group of gifted students in Phase 1, the absence of IQ-specific norms should be considered when interpreting the findings.

This study offers a valuable glimpse into the early development of HG/PG children through parental perspectives; it is important to acknowledge the limitations of a small sample in an exploratory pilot study. In qualitative research, the aim is not to generalize findings, but rather to ensure the transferability of results. The findings are specific to this purposive sample and may not be generalizable to all HG/PG learners. Future research should focus on larger and diverse samples, including longitudinal studies, to confirm these preliminary findings and further explore the interplay between OE profiles in this exceptional population.

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Appendix A. Semi-structured Interview Form – Sample of Interview Questions

Semi-structured Interview Form	
<i>Note: Participants will receive a copy of the informed consent and Institutional Review Board ethics approval letter when scheduling the interviews. They will be informed that the interviews will be conducted using Zoom and audio recorded. They are informed that they can use a pseudonym and that the interview will be recorded and used to transcribe the files. They will be sent a copy of the transcript to clarify or make corrections.</i>	
Q1	Please tell me about your child. [Follow up Qs/Prompts:] a. How would you describe your child's personality? b. What are some of the favorite things they like to do? What are they very good at? d. What are they like in school? How do their teachers describe them?
Q2	When did you first realize your child was gifted? [Follow up Qs/Prompts:] a. Can you give a few examples of their development or behaviors that made you suspect giftedness? b. What was it like parenting your gifted child during their early years (birth to preschool)?
Q3	How does your child relate with other children of similar age? How about with other children who are gifted/creative?
Q4	Can you describe social or emotional issues or difficulties that your child has been struggling with recently, if any?
Q5	On the ElemenOE survey, you rated your child high in _____. Can you give me an example of _____?
Q6	[If they rated this q average or high on the survey] Does your child worry much? What types of things do they worry about?