

Role of primary healthcare providers in supporting a gifted child



CPD 

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Background

'Giftedness' in children relates to high potential, whereas 'talent' relates to high achievement. The concept of giftedness can be perplexing for those involved in caring for and supporting a gifted child.

Objective

This article provides a starting point for primary healthcare providers in supporting gifted children by outlining a range of issues that may impact on these children.

Discussion

Gifted children are a heterogeneous population; giftedness occurs on a continuum. Giftedness can also co-occur with disabilities. Evidence-informed strategies to provide support to gifted children need to be considered.

THERE ARE MANY STEREOTYPES and myths about giftedness in children and what it means to be a gifted individual, such as the typecasting of historically eminent figures as being eccentric, the portrayal of so-called gifted individuals in the media and pop culture as being socially awkward, yet brilliant, or the close-to-madness gifted artist. These stereotypes do nothing to describe the lived experiences of gifted individuals, who bear little to no resemblance to these mythologised 'geniuses', and what it means for those identified as 'gifted'.

Gifted children may show high potential, or high ability, in specific areas of giftedness like general intelligence, evidenced by, for example, high verbal precocity, advanced physical development, visual-spatial development, numeric development and creativity. The focus of this article is on intellectual giftedness. For gifted children, issues usually arise from factors such as a mismatch between the child's learning environment and their potential and/or abilities, asynchronous development, learning and other disabilities and/or difficulties from challenges of so-called 'problem' behaviours. Complex individual cases can include many of these issues, and it can be hard for practitioners to tease out causes and come up with a course of

action to promote healthy development for gifted children. However, knowledgeable and informed practitioners can help support gifted children and their families by enabling access to appropriate assessments, specialists and interventions (where necessary) to support optimum life trajectories.

Defining giftedness

There is no universally agreed definition of giftedness or talent.¹ However, in Australia, these terms tend to be defined according to Gagné's Differentiating Model of Giftedness and Talent (DMGT),² in which there are separate understandings of these terms. According to the DMGT, giftedness is about potential, or aptitudes, in mental and/or physical domains (eg intellectual, creative, muscular) among the top 10% of age peers.² Conversely, talent is about systematically developed competencies, or performance, among the top 10% of leaders in the field in distinct areas of human endeavour (eg academics, science and technology, arts, sports), usually taking a significant proportion of a person's life to develop (F Gagné, pers. comm., 2021).

Giftedness will vary due to the inherent influences of different aspects in a child's life, such as home, school

and social environments, educational opportunities, the influence of significant others, intrapersonal characteristics (eg psychology, physical, motivation and volition), socioeconomic impacts on opportunities and access to activities and experiences, all of which are influenced by chance (eg genetics and formative environments).² In families in which a child has been identified as gifted, it is likely that the child's siblings are potentially gifted in some domain because giftedness is hereditary. However, the environment also plays an important part in the development of giftedness and the actualisation of this into talent; giftedness no doubt emerges from a 'highly distinctive configuration of developmental influences'.³

Just as there is diversity among individuals, it is important to be aware of the heterogeneity among gifted children. Although gifted children share some commonalities, such as creative problem solving, vast vocabularies, awareness of global issues often accompanied by an intense sense of social justice, diverse in-depth interests and being highly knowledgeable about topics of personal interest,⁴ there are equally as many differences. As such, there is no one-size-fits-all approach to supporting gifted children and their families, although an awareness of some common presenting issues in this population may help primary healthcare providers support the healthy development of these individuals.

Mismatch of learning environment and underachievement

In some instances, the learning environment at school does not support the development of giftedness. This can lead to a host of problems associated with feelings of non-belonging, feelings of failure, being paralysed by perfectionism and subsequent behaviour problems because these children are essentially bored at school. In these instances, there is a mismatch between the child's high potential, knowledge and abilities, and the lower expectations and learning offered by the teacher through the classroom curriculum.

Paradoxically, because of this mismatch, the child may underachieve at

school. This underachievement further compounds the issues because the child can be seen by some to not be gifted at all because their school achievements or performance do not reflect their assessed potential (eg on a psychometric assessment).⁵ Gifted students 'come to school expecting to learn something new each day, rather than to review and practise previous learning and skills';⁶ as a consequence, they can disengage and underachieve because they do not have sufficient cognitively challenging opportunities to learn.⁷

Asynchronous development

Where there are developmental concerns, especially when comparing intellectual skills and physical development, it may be due to what is known as asynchronous development.⁸ The level to which a gifted child shows a large disparity between intellectual, emotional and psychomotor abilities is referred to as asynchrony.⁹

Asynchronous development is where, for example, a child has advanced verbal abilities for their age but has average, or even below average, ability in fine motor skills (eg letter formation). This can lead to the child feeling frustrated because they cannot demonstrate their knowledge when it comes to activities that require fine motor skills, like writing. In turn, this can impact on classroom achievements because the child is struggling to show what they know and can do.

'Problem' behaviours

A myriad of 'problem' behaviours can emerge when a child is frustrated, bored and disengaged at school. These behaviour problems frequently occur in school, rather than at home, although they can spill into outside school environments. A range of behaviours can be communicated to parents by teachers, such as: talking in class; fidgeting; doodling; frequently asking to go to the toilet (to get out of doing work); not raising their hand to respond to questions (eg calling out); disturbing their peers; and problems associated with finishing work early and having nothing else to do or, worse, more of the same

worksheets to do with tasks that the child has already mastered.

The child may recount to their parents about being in trouble at school, sometimes for behaviour that is beyond their control. Children may report instances of being told off for reading a novel because they had finished their assigned work early. Furthermore, the child may complain about repeating the same work, a lack of challenge and/or variety in the work, the teacher repeating task instructions, drudgery with rote learning, or getting distracted or bored because the work is too easy. Some of these issues may emerge during consultations with general practitioners (GPs).

Learning and other disabilities

Problem behaviours may also emerge as a result of a paradoxical mix of a child being gifted but also having one or more disabilities, such as autism, attention deficit hyperactivity disorder, developmental coordination disorder, dyslexia, dyscalculia, anxiety, depression, hearing, speech, and vision and orthopaedic impairments.¹ In the field of gifted education, children with coexisting giftedness and disabilities are termed 'twice-exceptional children' (or 'gifted learners with disabilities'); these children have two (or more) exceptionalities, the first being giftedness and the second being the presence of one or more comorbid disabilities.¹⁰ Unfortunately, twice-exceptionality is often more misunderstood than giftedness. In Australia, there are at least 280,000 students (~7% of school students) who would fit this profile, many of whom go unidentified and unsupported in schools.¹¹

The combination of giftedness and disabilities in twice-exceptional individuals characteristically impacts on areas such as learning, interpersonal relationships and emotions.^{12,13} All twice-exceptional children are different; nevertheless, they do have some common characteristics. For example, they all have high intelligence, are highly creative, are skilled at solving complex problems and have broad, yet frequently highly focused, interests.^{12,14,15} Conversely, these abilities are typically inhibited by elements relating to

information processing deficits, issues with working memory, language skill deficits, attentional skill deficits, auditory processing deficits and/or reading skill deficits.^{16,17} Together, these issues present an accrual of problems often evidenced by lowered self-esteem, generalised anxiety, low self-concept and feelings of stress and not wanting to go to school. Many children with twice-exceptionality are highly anxious because of these compounding issues.¹⁰ During a consultation, GPs may elicit some of these issues with an initial and purposeful focus on engaging the child, perhaps while sharing a non-threatening play-type activity together, like drawing with crayons on some scrap paper.

Unfortunately, the deficit approach taken by many educational jurisdictions compounds the problems for twice-exceptional children because, when they are identified, it is often for their disabilities (for what they cannot do) rather than what they can do (ie their giftedness potential). This means they are unlikely to be selected for advanced academic work or allowed to engage in more in-depth extension activities on a curriculum topic or in an area of personal interest; some of the key educational strategies that support gifted children.

When conceptualising twice-exceptionality, it is not useful to regard giftedness as being the opposite of disability (eg intellectual disability). This type of reasoning is often erroneously assumed based on the symmetry of the 'normal' bell curve. Due to individual variations, it is more accurate to view giftedness, and subsequently twice-exceptionality in its various forms, as having different effects on an individual's development. The paradox of having giftedness and disabilities coexisting affects the learner in different ways, strongly influenced by how the educational environment acknowledges (or not) both exceptionalities and responds to them.

Role of the primary healthcare provider in supporting gifted children

There is considerable complexity to giftedness and, as such, there are various reasons why parents may bring

their child to the family doctor. Some of these reasons may be inferred from the issues discussed above. There are mixed, sometimes conflicting views in the literature as to whether gifted children are more predisposed to problems like anxiety, somatisation, depression and low self-confidence.^{18,19} However, it is important to note that research does not provide sufficient evidence to suggest that gifted children are at any greater risk than other children when it comes to social, emotional or other problems.²⁰ Nor does the literature provide sufficient evidence to suggest that gifted children are at the same or lesser risk than other children. Nevertheless, it is likely that reasons for visiting the doctor may relate to some of these issues because of the aforementioned problems encountered at school.

Practitioners may already be familiar with some of the problems that gifted children contend with. Evidence of advanced abilities and/or potential may become clear to healthcare providers when interacting with the child in the consulting room (eg the way the child talks and communicates, what they are interested in and asking about in terms of the room, instruments, books and toys). This will vary, depending on the child's age, and whether they feel relatively comfortable in the setting.

When giftedness and associated issues are suspected, a referral for assessment to a suitably qualified practitioner may be needed. The first port of call could be a psychologist, preferably someone who is experienced in working with gifted children. Where possible, it is always highly useful to have an initial psychometric assessment conducted (eg Wechsler Intelligence Scale for Children [WISC]), along with a suite of other assessments (eg Wechsler Individual Achievement Test [WIAT] and the Wide Range Assessment of Memory and Learning) for a comprehensive assessment of the child's strengths and 'weaknesses'. Although GPs do not undertake these assessments, it may be useful to have some background knowledge about the assessments that psychologists could use because these reports are usually sent back to the referring GP.

There are generally two courses of action that occur as a result of the child being assessed by a psychologist: the child continues to see the referring psychologist on a regular basis; or, most likely in our experience with gifted children, the psychologist provides copies of the report to the parents and GP, and then does not see the child for further follow up. This is where an understanding of the assessments and their purpose can be useful for the GP in terms of supporting the child and family in understanding the report, its implications and recommendations. GPs can play an advocacy role in this way for gifted children, supporting the child within the context of the family, particularly in terms of their formal schooling. The reports are quite lengthy and contain assessment results, with some accompanying explanations (that require unpacking), along with recommendations for educational contexts to support the child in very specific ways. Therefore, it is useful to outline the types of assessments psychologists may use and the purpose of these.

In terms of assessing the child's cognitive (intellectual) abilities, a useful psychometric assessment is the WISC-V, standardised in Australia and New Zealand.²¹ The psychologist usually provides a comprehensive assessment that also includes other assessments, such as the WIAT-III,²² an executive functioning assessment (eg the Behavior Rating Inventory of Executive Function) and an adaptive functioning assessment (eg the Achenbach System of Empirically Based Assessment or, if there are physical developmental concerns, the Adaptive Behaviour Scales), as summarised in Table 1.

Any referral to a practitioner should be carefully considered, because the practitioner needs to be experienced not only in assessing and conversing with gifted children, but also in conducting clinical assessments, interpreting the results and writing a substantive report. The report can often be the key to the child receiving the educational support and interventions they may need. GPs can act as the bridge between the psychologist and the parents in terms of unpacking the report and the specific needs of the

gifted child, while building rapport and trust with the child and the family. In some instances, this may involve writing a letter to the school to advocate for educational and/or special education funding, completing forms for Centrelink allowances (eg Carer Allowance), arranging GP management plans, team care arrangements and perhaps mental health plans.

Comprehensive assessments are useful in guiding further interventions and informing clinical judgements and educational accommodations. Early assessment is key; the later the child is assessed, the more likely they are to develop maladaptive coping mechanisms and coexisting anxiety disorders, which further impact on their learning and everyday functioning. GPs are in a prime position to recognise elements of a mismatch of the learning environment, asynchronous development, learning and other disabilities and some problem behaviours, as outlined earlier.

Recognising how gifted children may present

Some early signs can alert GPs to the possibility of giftedness in a young child, and GPs are in a good position to be

attentive to these indications. In infancy, signs like a child being highly alert, needing less sleep, having a long attention span, advanced progression through development milestones, high levels of focused activity and/or extreme reactions to sensory inputs (eg smells, noise) can all indicate gifted potential. A key indicator in the consultation room is a child who is highly engaged in the conversation, interested and alert to their surroundings, exhibiting in-depth imaginative play with toys in the room (eg the toy medical bag) and asking intriguing questions about medical instruments or objects in the room. The child may enjoy taking apart and correctly reassembling medical anatomy models the GP may have in the clinic.

Gifted children who are experiencing problems, particularly at school, may present in a myriad of ways. It can be difficult to tease out the specific issues in relation to the causes of their behaviour (eg school refusal or 'school can't'). This is probably the most obvious indicator of problems in school, presenting as a dislike of school, stomach aches and school avoidance-type behaviours. Not 'suffering fools gladly' and/or a lack of tolerance to other people's knowledge limitations can be another pointer to look out for, because this can lead to problems

with peers and teachers at school. Table 2 provides an overview of some of the ways gifted children may present, which can be highly dependent on other factors, such as chronological age and the environment. The child's connection with and trust of their GP can be useful in terms of a child (or parent) feeling comfortable to raise these issues during consultations. Although some presenting issues can be common among most children, it is the multiple intersecting combinations of these and the severity of impact that can be noticeable in terms of effects on a gifted child. The sudden onset of issues especially warrants further investigation by a trusted GP.

Parents are often very aware that their child seems quite different from their peers and can often explain what these different behaviours, interests and idiosyncrasies are. This is where GPs can be attentive to potential gifted characteristics and behaviours (eg asynchronous development, a strong sense of social justice, diverse in-depth interests and highly knowledgeable about topics of interest). An awareness of manifestations of twice-exceptionality and being on the look out for potential developmental disabilities for this population is also important.

Extended consultations may be necessary for gifted children to receive

Table 1. Some instruments used as part of a comprehensive assessment for giftedness and twice-exceptionality

Assessment name	Purpose	Age range
Wechsler preschool and primary scale of intelligence – fourth edition ²³	To identify cognitive development of preschoolers and inform clinical and educational support	2 years 6 months – 7 years, 7 months
Wechsler intelligence scale for children – fifth edition ²¹	To identify giftedness and disabilities and to support clinical and educational provision	6 years, 0 months – 16 years, 11 months
Wechsler individual achievement test – fourth edition ²⁴	To assess academic achievement and support the diagnosis of disabilities	4 years, 0 months – 50 years, 11 months
Behavior rating inventory of executive function – second edition ^A	To assess executive function	5–18 years
Achenbach System of Empirically Based Assessment ^B	To assess adaptive and maladaptive functioning	1.5–90 years
Vineland adaptive behavior scales – third edition ²⁵	To measure adaptive behaviour and support the diagnosis of disabilities	Birth – 90 years

^AGioia GA, Isquith PK, Guy SC, Kenworthy L (www.parinc.com/products/pkey/24).

^BAchenbach TM, Rescorla LA (<https://aseba.org/>).

suitable follow-up care and support from GPs, and can be especially valuable for supporting parents in interpreting recommendations from specialist reports and supporting the school to implement them. It is frequently the interface between the report recommendations and the school environment that is the key to gifted children receiving the necessary support at school. This is often the area of essential follow through, as the child may continue to experience issues because support implementations remain unaddressed at some level. An empathetic and understanding GP can provide much-needed support to parents in actioning recommendations from reports.

Conclusion

Gifted children are a heterogeneous population and may show high potential, or high ability, in areas such as language

and numeracy, general intelligence and/or creative pursuits, or advanced physical development. Some gifted children, those termed twice-exceptional, may have disabilities and show paradoxical deficits in information processing, working memory, language skills, attentional skills, reading skills and/or mathematical ability.

Primary healthcare providers may see gifted children for issues that usually arise from different aspects of schooling and development, such as a mismatch between the learning environment and the child's high potential and/or abilities, large discrepancies in skills due to asynchronous development, learning and other disabilities and difficulties associated with problem behaviours. The primary healthcare provider plays an important ongoing role in supporting gifted children and developing a course of action that helps ensure their optimum development so they can fulfil their potential.

Key points

- Giftedness is complex.
- Gifted children are a heterogeneous population.
- Giftedness occurs on a continuum and can also co-occur with disabilities.
- A comprehensive assessment is important for developing a course of action.

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References

1. Ronksley-Pavia M. A model of twice-exceptionality. *J Educ Gift* 2015;38(3):318-40.
2. Gagné F. Differentiating giftedness from talent: The DMGT perspective on talent development. New York: Routledge, 2021.
3. Simonton DK. Genetics and giftedness. In: Sternberg RJ, Davidson JD, editors. *Conceptions of giftedness*. 2nd edn. Cambridge: Cambridge University Press, 2016; p. 312-26.
4. Johnsen SK. Definitions, models, and characteristics of gifted students. Identifying gifted students. New York: Routledge, 2021.
5. Cross TL, Coleman LJ. School-based conceptions of giftedness. In: Sternberg RJ, Davidson JE, editors. *Conceptions of giftedness*. 2nd edn. Cambridge: Cambridge University Press; 2016; p. 52-63.
6. Gross MUM. Gifted and talented education: Professional development package for teachers - Extension module 1: Early childhood, primary, secondary. Australian Government, Department of Education, Science and Training, 2004. Available at www.unsw.edu.au/content/dam/images/photos/campus/kensington/2021-06-gerric-documents/gerric-module1-extension.pdf [Accessed 9 June 2023].
7. Ronksley-Pavia M, Neumann MM. Conceptualising gifted student (dis)engagement through the lens of learner (re) engagement. *Educ Sci (Basel)* 2020;10(10):274.

Table 2. An overview of some presenting issues for gifted children

Issue/s	Can look like/present as...
Boredom in school	Getting in trouble for reading, drawing or talking
Behaviour problems (mild to severe) resulting from a lack of engagement or cognitive challenge in activities or learning	Defiance, tantrums, physical aggression, destroying property
Lying or manipulating to avoid school or learning activities or to gain favoured activities	Fearful of trying new things, refusing to stop an activity when asked to do so
Running away, task avoidance behaviours, truancy	'Homework battles', getting into trouble to avoid a task or activity, procrastination
Seemingly impulsive behaviours	Getting into trouble for calling out answers in class because they know the answer
Accidental injuries	Due to hurrying to favoured activities, tiredness
Distracted in class or distracting others (due to disengagement or already knowing the content)	Talking in class, fidgeting, getting out of their seat when not appropriate, sleep disturbance
Finishing school work quickly or not paying attention to details in school work	Rushing mathematical problems, getting easy questions wrong and hard questions correct
Endless tiresome questions or inquiries (well-beyond expected for chronological age)	Multiple questions without waiting to hear the answers
Tactless questioning or correcting adults (where the child is often correct!)	Corrects the teacher, parents, general practitioner

8. Callahan CM. The characteristics of gifted and talented students. In: Callahan CM, Hertberg-Davis HL, editors. *Fundamentals of gifted education: Considering multiple perspectives*. 2nd edn. New York: Routledge, 2018; p. 153–66.
9. Silverman L. Asynchronous development. In: Neihart M, Reis S, Robinson N, Moon S, editors. *The social and emotional development of gifted children: What do we know?* Waco: Prufrock, 2002; p. 31–37.
10. Ronsley-Pavia M, Grootenboer P, Pendergast D. Privileging the voices of twice-exceptional children: An exploration of lived experiences and stigma narratives. *J Educ Gift* 2019;42(1):4–34.
11. Ronsley-Pavia M. Twice-exceptionality in Australia: Prevalence estimates. *Australas J Gift Educ* 2020;29(2): 17–29.
12. Ronsley-Pavia M, Pendergast D. Countering the paradox of twice exceptional students: Counter narratives of parenting children with both high ability and dis-ability. In: Wolff Lundholt M, Lueg K, editors. *Routledge Handbook of Counter Narratives*. Abingdon: Routledge, 2021; p. 238–54.
13. Silverman LK. The two-edged sword of compensation: How the gifted cope with learning disabilities. In: Kay K, editor. *Uniquely gifted: Identifying and meeting the needs of twice-exceptional children*. Avocus Publishing, 2005. Available at <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.511.5584&rep=rep1&type=pdf> [Accessed 1 November 2018].
14. Ronsley-Pavia M. *The lived experiences of twice exceptional children: Narratives of disability and giftedness* [PhD thesis]. Brisbane: Griffith University, 2016. Available at <http://hdl.handle.net/10072/367172> [Accessed 13 April 2023].
15. Assouline SG, Whiteman CS. Twice-exceptionality: Implications for school psychologists in the Post-IDEA 2004 era. *J Appl Sch Psychol*. 2011;27(4):380–402.
16. Ronsley-Pavia M. The additional burden of auditory processing skill 'deficits' for a young person with multiple exceptionalities: A case study of a twice-exceptional student. *Roeper Rev* 2023, in press.
17. Gokula R, Sharma M, Cupples L, Valderrama JT. Comorbidity of auditory processing, attention, and memory in children with word reading difficulties. *Front Psychol* 2019;10:2383.
18. Neihart M. The impact of giftedness on psychological well-being: What does the empirical literature say? *Roeper Rev* 1999;22(1):10–17.
19. Eren F, Ömerelli Çete A, Avcil S, Baykara B. Emotional and behavioral characteristics of gifted children and their families. *Noro Psikiyatr Ars* 2018;55(2):105–12.
20. Neihart M, Yeo LS. Psychological issues unique to the gifted student. In: Pfeiffer SI, Shaunesy-Dedrick E, Foley-Nicpon M, editors. *APA handbook of giftedness and talent*. Washington: American Psychological Association, 2018; p. 497–510.
21. Wechsler D. *WISC-V: Technical and interpretive manual*. Bloomington, MN: Pearson, 2014.
22. Wechsler, D. *Wechsler individual achievement test, 3rd edn*. Australian and New Zealand standardised, WIAT-III A&NZ. Bloomington, MN: Pearson, 2016.
23. Wechsler D. *Wechsler preschool & primary scale of intelligence – 4th edn*. Australian and New Zealand standardised edition, WPPSI-IV A&NZ. Bloomington, MN: Pearson, 2014.
24. Wechsler D. *Wechsler individual achievement test, 4th edn*. WIAT-4. San Antonio, TX: The Psychological Corporation, 2020.
25. Sparrow SS, Cicchetti DV, Saulnier CA. *Vineland adaptive behavior scales, 3rd edn*. Vineland-3. Bloomington, MN: Pearson, 2016.

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