



## Research Article

# Health, Care and Family Problems in Gifted Children: A Literature Review<sup>1</sup>

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### Abstract

Gifted children may experience various physical or psychosocial problems. The purpose of this literature review was to identify health, care, and family problems that can be seen in gifted children. Review of the literature was made on Pubmed, Medline and SAGE Journals databases and 11 studies were examined that conducted between 2007-2017. In the studies examined, the age range of children varies between the age of 2 and 18. In gifted children, 81% of the most common health problems are emotional problems. There were no signs of physical health and care problems in children. Factors such as early diagnosis and treatment of the accompanying health problems, positive attitudes towards the child, and reduction of expectation of the families were found to be important in decreasing family and health problems

### Key Words:

gifted children, health, care, family, problems

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## **Introduction**

Intelligence is defined as a common core of one's all abilities as well as a problem-solving skill. It is used to state one's cognitive potency. As for ability, it is a more general concept including intelligence and special skills in different domains. Therefore, children who are outstanding at a certain area are identified as "gifted" rather than "genius" (Ozbay, 2013).

As giftedness is a very complicated and multifaceted issue, there is no single universally accepted definition for "gifted children". In the past, the term "gifted children" was identified based on intelligence composed of single, unitary mental ability factor. However, today, there is a tendency to identify it based on multiple abilities and performance (Dogan & Aslan, 2009). It is estimated that the prevalence of geniuses is 2%, and this rate increases to 4-5% with the addition of ability to intelligence (Ataman, 2012).

Gifted children are considered as extraordinary individuals for their high levels of intelligence and special abilities. Due to extraordinary abilities, gifted children may have various physical or psychosocial problems. Although gifted children have well-developed cognitive abilities and language skills, it is seen that they experience especially emotional and social problems.

This literature review aims to determine health, care and family problems in gifted children.

## **Material and Method**

This literature review was conducted using five key words in English on the following databases: Pubmed, Medline and SAGE Journals Online. The key words were "Gifted/talented Children", "Health", "Care", "Family" and "Issues/Problems". Inclusion criteria were as follows: Studies, 1) conducted between 2007-2017, 2) published as full text in English, 3) accessed on the databases of Pubmed, Medline and SAGE Journals Online, 4) investigating physical, psychosocial or family care issues/problems in gifted children. After searching, it was reached 25 articles but found after searching, a total of 11 met inclusion criteria and thus, 11 studies were included in this study. The studies were evaluated in terms of year, country, sample size and characteristics, and significant results.

## **Results**

All the gifted children constituting the sample of the studies were living in cities or rural areas and having gifted education in appropriate educational institutions. When examined the sample size of the studies, we found that the study by Olszewski-Kubilius et al. (2014) had the largest sample size (n=1526) and the study by Pilarinos et al. (2017) had the smallest (n=48). Only two studies had a sample composed of children, parents and teachers, and two other studies had a sample composed of

children and parents. The other studies had a sample composed of only children who were identified as gifted.

The studies included in this review were conducted in the United States (5), the Netherlands (2), France (1), Canada (1), South Korea & the United States (1), Australia & New Zealand (1). Ages of the children ranged between 2 and 18 years. The most common health problem in gifted children was emotional problems with a rate of 81%. It was detected that as the age of gifted children increased, their organisational skills improved. It was also stated that the children's levels of anxiety about making a mistake increased with age, and were higher in the gifted who were only and firstborn child. Emotions such as guilt, shame, and self criticism were found to be higher in older children. Boys were reported to have difficult behaviorous anxiety about school failure and fear of nightmares, and also families with higher expectations. There are studies stating that girls are more likely to experience fear than boys. It was found that behavioral problems and mixed syndromes in gifted children decreased along with the increase in IQ level. In the studies, it was indicated that the gifted children with attention deficit hyperactivity disorder (ADHD) had learning problems, those with autism displayed hyperactivity and atypical behaviours, and those with dyslexia had low levels of literacy. Among the family issues, mothers were found to experience difficulty in management of their gifted children. It was also found that the gifted children with lower parental confidence and whose mothers had lower education level experienced more behavioral problems. An affectionate and respectful family structure, and high levels of parental confidence decrease parent-child conflict, enable child to build positive peer relationships and to improve their interpersonal relations. In the studies examined, no finding was found about physical health and care problems in gifted children. Table 1 showed summary of the 11 articles included in this review.

## **Discussion**

At the end of the literature search, 11 research published between 2007-2017 were accessed in order to determine health, care and family problems in gifted children. The most common health problems experienced by gifted children are emotional problems at a rate of 81%. Morawska & Sanders (2008) similarly indicated that the gifted children were more likely to experience emotional problems compared to their peers. This finding is consistent with our study.

It is revealed that as gifted children older, their levels of anxiety about making a mistake increases. In the study by Margot & Rinn (2016), the levels of anxiety about making a mistake in 7th grade students were found to be lower than those in 8th grade students. Furthermore, it is determined in our study that the level of anxiety about making a mistake is higher in the gifted children who are only or firstborn children. Margot & Rinn (2016) similarly stated that families of the gifted who were

only or firstborn children had higher expectations and these children experienced higher levels of anxiety about making a mistake.

It is determined that while parent's expectations, difficult behaviours and level of anxiety about school failure are higher in boys, the emotion of fear is higher in girls. Morawska & Sanders (2008) found in their study that the gifted boys displayed difficult behaviours and their families had higher expectations. Another study by Tippey & Burnham (2009) reported that boys had greater fear of bodily injury, school failure, and nightmares, while girls had greater fear of death and danger.

It is revealed that there is a decrease in behavioral problems and mixed syndromes for the gifted children who have high IQ. Results of the other studies are consistent with our findings. In a study by Guénolé et al. (2013), children with higher IQs were found to display less behavioral problems and mixed syndromes. In another study by Kroesbergen et al. (2016), high performing children were reported to have higher levels of well-being.

In this study, the gifted children, those with attention deficit hyperactivity disorder (ADHD) have learning problems, those with autism display hyperactivity and atypical behaviours, and those with dyslexia have low levels of literacy. In the study by Whitaker et al. (2013), the gifted children with the ADHD were found to have worse learning abilities. In another study by Nicpon et al. (2010), the gifted with autism were found to have problems such as hyperactivity and displaying atypical behaviors. And Viersen et al. (2015) found that the gifted with dyslexia had low levels of literacy.

Among the family issues, mothers of the gifted children are stated to experience difficulty in management of their children. In the study by Pilarinos & Solomon (2017), the mothers were found to describe more child conduct problems than the teachers did.

High levels of parental confidence, and an affectionate and respectful family structure enable children to build positive relationships with their peers and others, and both decrease parent-child conflict. The study by Olszewski-Kubilius et al. (2014) revealed that a family environment which was affectionate, supportive and respectful had significant influences on the development of interpersonal abilities and peer relationships for the gifted children.

**Table 1.**

*Summary of the Studies Related to Health, Care and Family Issues/Problems in Gifted Children*

<b>Author/Year /Country</b>	<b>N</b>	<b>Sample Characteristics</b>	<b>Method</b>	<b>Results and Conclusion</b>
<b>1. Whitaker et al. (2013) The United States (13)</b>	125	<ul style="list-style-type: none"> <li>- 125 Children (106 Boys, 19 Girls)</li> <li>- Mean Age: 10.28</li> <li>- Gifted children with ADHD: 30</li> <li>- Gifted children without ADHD: 39</li> <li>- Children of average intellectual abilities with ADHD: 56</li> <li>- Scores on the General Ability Test and the WISC-IV Test: 85 and above</li> </ul>	<ul style="list-style-type: none"> <li>- Between 2007-2012</li> <li>- Title "A Neurodevelopmental Approach to Understanding Memory Processes Among Intellectually Gifted Youth with Attention-Deficit Hyperactivity Disorder"</li> <li>- A study of comparing groups with pretest</li> </ul>	<ul style="list-style-type: none"> <li>- The gifted children with ADHD had lower scores for verbal learning ability than others.</li> <li>- The gifted children showed better performance on strategic verbal memory compared to those with average intellectual abilities.</li> </ul>
<b>2. Nicpon et al. (2010) The United States (8)</b>	54	<ul style="list-style-type: none"> <li>- Child: 39</li> <li>- Adolescent: 15</li> <li>- 54 (46 Girls, 8 Boys)</li> <li>- Age range: 5-17 years</li> <li>- 52 Parents, 42 Teachers</li> <li>- Participants were evaluated using DSM-IV-TR</li> </ul>	<ul style="list-style-type: none"> <li>- Title "Parent, Teacher, and Self Perceptions of Psychosocial Functioning in Intellectually Gifted Children and Adolescents with Autism Spectrum Disorder"</li> <li>- Conducted in primary, middle and high schools</li> <li>- A descriptive study</li> </ul>	<ul style="list-style-type: none"> <li>- The parents and teachers of adolescent group reported that the adolescents displayed the expected depression, hyperactivity and atypical behaviors for this age group.</li> <li>- The parents of the gifted adolescents with autism stated that the adolescents maintained activities of daily living and relationships with their friends, and they were in interaction with their environment.</li> </ul>

**Table 1.**

*Summary of the Studies Related to Health, Care and Family Issues/Problems in Gifted Children (Continued)*

<b>Author/Year /Country</b>	<b>N</b>	<b>Sample Characteristics</b>	<b>Method</b>	<b>Results and Conclusion</b>
<b>3. Van Viersen et al. (2015) The Netherlands (14)</b>	73	- 73 (43.8% Girl, 56.2% Boy) - Grade 2 and 4 - Gifted children with dyslexia and borderline gifted children	- Title "Risk and Protective Factors in Gifted Children with Dyslexia" - Conducted in a primary school - A descriptive study	- Cognitive risk factors in gifted children with dyslexia were largely independent of intelligence. - The gifted children with dyslexia had problems such as low literacy level due to underlying cognitive deficits.
<b>4. Morawska &amp; Sanders (2008) Australia &amp; New Zealand (6)</b>	278	- Gifted children: 278 - Age range: 2-6 years - Children with IQ>130: 214 - 409 Parents	- Title "Parenting Gifted and Talented Children: What are the Key Child Behaviour and Parenting Issues?" - Conducted in a school for gifted children and in a primary school - A descriptive study	- The gifted children were more likely to experience emotional problems and to have difficulty with peer relationships. - Being a boy, having a mother with a low education level and having lower level of parental confidence were important factors related to behavioral problems. - Higher levels of parental confidence were important in less emotional problems, less stress and depression and less conflicts over parenting.

**Table 1.**

*Summary of the Studies Related to Health, Care and Family Issues/Problems in Gifted Children (Continued)*

<b>Author/Year /Country</b>	<b>N</b>	<b>Sample Characteristics</b>	<b>Method</b>	<b>Results and Conclusion</b>
<b>5. Margot &amp; Rinn (2016) The United States (7)</b>	96	- 96 (47 Girls, 49 Boys) - Grade 7 and 12 - 70% Caucasian	- Title "Perfectionism in Gifted Adolescents: A Replication and Extension" - Conducted in a rural middle and high school - A descriptive study	- The 7th grade students had less anxiety about making a mistake than the 8th grade ones. - The gifted who were only or firstborn children had increased levels of anxiety about making a mistake, higher parental expectations and personal standards. - The parents of the gifted boys had higher expectations. - The students in Grade 11 had higher scores on organization than those in Grade 7 .
<b>6. Guénolé et al. (2013) France (3)</b>	144	- 144 (42 Girls, 102 Boys) - Age range: 8-11 years - IQ levels: >130 and 145	- Title "Behavioral Profiles of Clinically Referred Children with Intellectual Giftedness" - A case-control study	- The gifted children with higher IQs displayed less behavioral problems and mixed syndromes.
<b>7. Pilarinos &amp; Solomon (2017) Canada (10)</b>	48	- Age range: 7-11 years - IQ>130 - Children speaking in English - 48 mothers, 33 fathers, 36 teachers	- Title "Parenting Styles and Adjustment in Gifted Children" - Conducted in the children's homes - A descriptive study	- 39,6% of the gifted children were reported by their parents as having social problems with their peers. - Child conduct problems were reported by the mothers rather than the teachers.

**Table 1.**

*Summary of the Studies Related to Health, Care and Family Issues/Problems in Gifted Children (Continued)*

<b>Author/Year /Country</b>	<b>N</b>	<b>Sample Characteristics</b>	<b>Method</b>	<b>Results and Conclusion</b>
<b>8. Kroesbergen et al. (2016) The Netherlands (4)</b>	69	<ul style="list-style-type: none"> <li>- Grade 1 and 2</li> <li>- Children above 4 years old and usually 6 years old when starting first grade</li> <li>- Students of rural and urban areas</li> <li>- Gifted children: 35</li> </ul>	<ul style="list-style-type: none"> <li>- Title “The Psychological Well-Being of Early Identified Gifted Children”</li> <li>- Conducted in a primary school</li> <li>- A case-control study</li> </ul>	<ul style="list-style-type: none"> <li>- The gifted children experienced lower self-esteem and social acceptance.</li> <li>- When the education program was not adapted to the gifted child’s needs, it influenced adversely their self-esteem and social acceptance.</li> </ul>
<b>9. Mofield &amp; Peters (2015) The United States (5)</b>	130	<ul style="list-style-type: none"> <li>- 130 (68 Girls, 62 Boys)</li> <li>- Grade 6, 7 and 8</li> <li>- 115 Caucasian, 5 Afro-American, 5 Asian, 4 Hispanic, 1 other race</li> </ul>	<ul style="list-style-type: none"> <li>- Title “The Relationship Between Perfectionism and Overexcitabilities in Gifted Adolescents”</li> <li>- Conducted in a rural school</li> <li>- A cross-sectional study</li> </ul>	<ul style="list-style-type: none"> <li>- Perfectionism propelled the child to guilt, shame, self-criticism and to reach higher levels of success.</li> <li>- As the age increased, the perfectionism also increased.</li> </ul>
<b>10. Olszewski-Kubilius et al. (2014) The United States &amp; South Korea (9)</b>	1526	<ul style="list-style-type: none"> <li>- 1526 (52.5% Boy, 47.5% Girl)</li> <li>- Grade 5 and 12</li> <li>- Students, mothers or fathers</li> </ul>	<ul style="list-style-type: none"> <li>- Between 2005-2008</li> <li>- Title “Family Environment and Social Development in Gifted Students”</li> <li>- Conducted in a university and a center for talent development summer, weekend, and distance learning programs.</li> <li>- A cross-sectional study</li> </ul>	<ul style="list-style-type: none"> <li>- An affectionate, supportive and respectful family environment influenced positively the development of interpersonal ability and peer relationships for the gifted children.</li> <li>- Parent’s positive attitudes had positive effects on behavioral development of the gifted children.</li> </ul>

**Table 1.**

*Summary of the Studies Related to Health, Care and Family Issues/Problems in Gifted Children (Continued)*

<b>Author/Year /Country</b>	<b>N</b>	<b>Sample Characteristics</b>	<b>Method</b>	<b>Results and Conclusion</b>
<b>11.Tippey &amp; Burnham (2009) The United States (12)</b>	287	- 172 Girls - 115 Boys - Age range: 7-10 years	- Title "Examining the Fears of Gifted Children" - Conducted in a primary school - A descriptive study	- The gifted girls were more fearful of death and danger and animals than the gifted boys. - The gifted boys were more fearful of harm, bodily injury, school failure and nightmares.

**Conclusion**

In this review study, the leading health problems in gifted children were determined as emotional problems such as fear and anxiety. Early identification and effective treatment of health problems associated with giftedness is important to improve the well-being of child and parents. Additionally, positive attitudes of parent toward the child and lowering parental expectations are essential to reduce family and health problems.

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