

## Views of parents regarding the services provided to the students with attention deficit hyperactivity disorder

Serife Senay Ilik\*, Department of Special Education, University of Necmettin Erbakan, 42300 Konya, Turkey

### Suggested Citation:

Ilik, S. S. (2019), Views of parents regarding the services provided to the students with attention deficit hyperactivity disorder. *Cypriot Journal of Educational Science*. 14(3), pp. 445–456.  
<https://doi.org/10.18844/cjes.v14i3.4327>

Received from April 05, 2019; revised from July 01, 2019; accepted from September 02, 2019.

Selection and peer review under responsibility of Prof. Dr. Huseyin Uzunboylu, Near East University, Cyprus.

©2019 United World Center of Research Innovation and Publication. All rights reserved.

---

### Abstract

This study adopted a descriptive survey method to investigate the views of parents on education and healthcare services provided to the children with attention deficit hyperactivity disorder (ADHD) and help them explain their views in their own words. The sample was composed of 25 parents of children diagnosed with ADHD, who were attending primary schools in Konya city center. A semi-structured interview form was used for parent interviews. The data were analysed through content analysis. The results revealed that according to the parents' views, the service provided to the children mostly included either healthcare or education services, but a very little number of children received both services. The great majority of the families stated that the medicines that their children were prescribed increased their attention; however, negatively affected their social development. The parents expressed their opinion that a training programme for parents should be arranged and multimodal interventions should be provided.

**Keywords:** Education, healthcare, attention deficit, hyperactivity disorder.

---

\* ADDRESS FOR CORRESPONDENCE: S. Senay Ilik, Department of Special Education, University of Necmettin Erbakan, 42300 Konya, Turkey. E-mail address: [senayilik@gmail.com](mailto:senayilik@gmail.com)

## 1. Introduction

Attention deficit hyperactivity disorder (ADHD) is known as the shortness of the permanent and constant attention span, and the over-activity and restlessness in behaviour or cognition. Based on these characteristics, the children are inattentive and overly active contrary to their level of development. First symptoms occur around the age of three; however, it is not possible to diagnose until the school ages when the children are expected to develop regular attention and concentration. Although ADHD is known to be seen in children, it is a chronic disorder with a developmental characteristic; therefore, it may continue during puberty and adulthood (Barkley, 2006). Most of the studies on ADHD revealed that the factors that cause ADHD stem from psychosocial, biological, genetic and family factors (Franke, 1996; Grice, Rasmussen & Leckman, 1994). Recently, it has been accepted that ADHD is a functional disorder with a biological basis while genetic and environmental factors are also effective on it (Erdogan, 2002).

The related literature presents that most of the studies conducted on ADHD are in the field of healthcare services. The majority of these studies are composed of the psychiatric studies carried out to diagnose the children with ADHD (Aydin, Diler, Yurdagul, Uguz & Seydaoglu, 2006; Hesapcioglu, Celik, Ozmen & Yigit, 2016; Yapicioglu, Kavakci, Guler, Semiz & Dogan, 2011). In recent years, especially in the field of education, the number of studies has increased (Ilik, 2017; Karaduman, 2004; Kaymak, 2003; Ozcan, Oflaz & Durukan, 2010). In the field of education, studies regarding ADHD are mostly composed of the studies conducted in the field of consultancy services. However, the number of studies conducted in the fields of education and healthcare services together is quite limited.

Nowadays, the idea that ADHD cannot be solved through separate interventions of either education or healthcare professionals; on the contrary, these two fields need to be incorporated together has been increasingly accepted. The literature reveals positive results of the short-term application of drug therapy; however, the long-term effects of drug therapy are not mentioned (Rajeh et al., 2017). Drug therapies implemented on children with ADHD cure the basic symptoms; nevertheless, they have limited effects on the treatment of other behaviours. To eliminate the social skill deficit, executive function skill deficit and problem-solving deficit which are seen along with ADHD, a multimodal intervention procedure including psychosocial approaches needs to be implemented (Barkley, 2006; Goldman, Genel, Bezman & Slanetz, 1998; TCSB, 2006). The main purpose of ADHD interventions is to sustain attention, facilitate learning, establish behaviour control, improve social skills and increase the self-respect of the individual (Ozcan and Ogulmus, 2010). The results of an experimental study by Klein, Raschke & Brandenbusch (2003) support the necessity of multimodal applications. A multimodal approach is described as a combination of drug therapy, behavioural strategies and education interventions (Weyandt & DuPaul, 2006). The study incorporated two groups with 103 children diagnosed with ADHD, and one of the groups was implemented a multimodal treatment including the school and home environments in addition to drug therapy, while only drug therapy was implemented on the second group. It was found out that the group which received multimodal treatment in addition to drug therapy revealed the expected behaviours more. The limited number of studies handling both healthcare and education issues at the same time leads to the emergence of the idea that the issue can be solved by one discipline. After the child is diagnosed with ADHD, drug therapy starts with an expectation that the child's behaviours can be organised through medical treatment. It is scientifically proved that the children's attention deficit and hyperactivity symptoms can be controlled by means of drug therapy. However, parents and teachers are responsible for teaching other positive behaviours (Dogaroglu, 2013). The parents need to be aware of the situations regarding the behavioural characteristics of children diagnosed with ADHD and the kind of arrangements they need to do in their house. The teachers also need to obtain the necessary information in order to make arrangements in the classroom considering the characteristics of children with ADHD, in case they have problems in obeying the classroom rules, make mistakes because of their attention deficit or experience problems in participating in the games or other classroom activities. Based on these

reasons, this study aimed to explore the services that parents of children with ADHD receive, the positive and negative aspects of these services according to the parents' opinions, as well as discussing the factors that lead parents' opinions according to the literature.

## 2. Method

### 2.1. Research design

This study adopted a descriptive survey method under the qualitative research design to investigate the views of parents on the education and healthcare services provided to the children with ADHD in detail and help them to explain their views in their own words. Descriptive survey method allows the data to be organised according to the themes that the research questions revealed and presented by considering the questions or dimensions used in the interview (Yildirim & Simsek, 2013). The data of the study were collected through a semi-structured interview method.

### 2.2. Participants

The sample of the study was composed of 25 (20 mothers, 5 fathers) parents having children diagnosed with ADHD and attending primary schools at the Konya city center. The sample was selected according to the principles of the purposive sampling method. The study was conducted with volunteer parents. The demographic information of the parents who participated in the study can be seen in Table 1.

**Table 1. Parents' demographic information**

Educational Background	Mother		Father		Total	
	<i>F</i>	%	<i>f</i>	%	<i>f</i>	%
Primary School	9	36	0	0	9	36
Secondary School	6	24	0	0	6	24
High School	4	16	4	16	8	32
University	1	4	1	4	2	8
Total	20	80	5	20	25	100

As seen in Table 1, among the participants, 20 of them were mothers while 5 of them were fathers. When the participants' educational background is considered, among mothers, the number of primary school graduates is the highest, while among fathers, the number of high school graduates is the highest.

### 2.3. Data collection tool

A semi-structured interview form was developed for the interviews with the parents. In the development of the semi-structured interview form, first of all, the literature was reviewed and a draft form was prepared. At the second phase, a total of 15 questions were developed in the light of the information gathered from the literature (Barkley, 2006; Connors et al., 2001; Dopfner & Lehmkuhl, 2005; Ilik, 2017; Kaymak Ozman, 2011; Lauth & Heubeck, 2006; Lauth & Nauman 2009; Petermann, Petermann & Franz, 2010; Weyandt & DuPaul, 2006). In the third phase, in order to ensure the internal reliability of the semi-structured interview form, the experts were consulted for their opinion and the required revisions were done. In the fourth phase, the form was ready for the pilot study after reducing the number of items to 13 according to the expert opinions. The fifth phase included the pilot study with three of the participants and several revisions on the incomprehensible questions were made and two of the questions were left out. The semi-structured interview form took its final

form with 11 questions. The interviews were conducted upon the consent of the participants and recorded using an audio recorder. The interviews took around 25 minutes. Following sub-questions were asked to find out the views of parents:

1. Does your child get health or education service?
2. Can you describe the deficiency in your child with ADHD with a few sentences?
3. In which areas do you think drug therapy is most beneficial for your child's development, why?
4. What do you expect from the medicines given to your child? What kind of change do you expect?
5. Have you experienced any problems during drug therapy, if so what are they?
6. Have you ever considered stopping drug therapy? Why?
7. Have any alternative treatments been suggested?
8. What do you expect from the education provided to the child?
9. What development area did your child benefit from educational situations?
10. What are the situations in education that do not meet your expectations?
11. What suggestions would you make to make the lives of children with ADHD easier?

#### **2.4. Data analysis**

In this study, a semi-structured interview form with 11 open-ended questions was used to determine the views of the parents whose children were diagnosed with ADHD in the 2018–2019 academic year. The researcher conducted face-to-face interviews with each of the parents. The similarities and differences among the participants' statements were compared and categorised. The data were analysed through content analysis. When the interviews with the parents were completed, the audio-recorded data were transcribed by the researcher. The researcher and a faculty member working at the special education department prepared a master key for each item in the interview form. First of all, the master key was prepared by the researcher and the faculty member individually, then the researcher and the faculty member prepared the final version of the master key together. Data were marked into the master key by the researcher and the faculty member individually. Then the marked master keys were compared. The reliability of the study was calculated by dividing the number of agreements by the sum of agreements plus disagreements and multiplying by 100% and it was found as 85%. Additionally, certain sentences which explain the basic idea behind the participants' expressions were quoted. The parents were appointed alpha-numeric codes such as P-1, P-2, P-3,.... in order to protect their identity.

### **3. Findings**

In this section, the findings of the study were presented.

**Table 2. The participant parents' children who get healthcare or education services**

<b>The students' who get service</b>	<b>F</b>
Special Education	5
Healthcare	11
Special Education+ Healthcare	3
None	6
Total	25

The data in Table 2 reveal that among the participants whose children attend state schools, 5 out of 25 participants stated that their children received special education either at a public or private institution, 11 of them stated that they received only healthcare services for their children. Only 6 of the participants stated that their children received both educational and healthcare services together. Although the participants' children were diagnosed by CRC (Counseling Research Center), some of them refused drug therapy while others were never offered. These parents were not provided any education service due to the absence of the supportive education room in their schools. When the

data in Table 1 is considered, the number of children who were provided education services is 8 while the number of children who were provided healthcare services is 14.

**Table 3. The participants' answers to the question: 'Can you describe the deficiency in your child with ADHD with a few sentences?'**

Statements	F
Chaos	4
The unwanted child in the social environment	4
Not using familiar methods to attract attention	6
Saying everything over and over	5
Incomprehension of the social clues	1
Inconsistent behaviours	2
The difficulty of understanding of any issues	2
It is like catching lightning in a bottle	1
Total	25

Table 3 reveals the answers of the participants when they are asked to describe their children's deficiencies with a few words, and similar answers were categorised under the same expression. The majority of the participants described their children with the expressions which are already a part of the basic ADHD criteria. It is noteworthy that the participants described their children in terms of social aspects rather than academic activities. The following quotations reveal the views of certain participants.

*'I need to remind my son everything step by step, even the simplest issues. He knows how-to-do just like his peers, but he always needs to be reminded. I may be the reason behind this behaviour. I am not sure if this behaviour is because I remind him all the time or it is his situation that made me like this'. (P-2)*

*'My son is a temperamental person who is sometimes quite social but sometimes in a very bad condition in every sense.' (P-18)*

*'The clearest description for my son is choosing the ways that his friends do not like in order to attract their attention. This behaviour leads him to be alienated and this situation worries me'. (P-16)*

**Table 4. The participants' answers to the question: In which areas do you think drug therapy is most beneficial for your child's development, why?**

Statements	f
Education	14
Attention	8
No benefits	2
Total	24

The participants' answers to the question 'In which areas do you think drug therapy is most beneficial for your child's development, why?' are presented in Table 3. The majority of the participants stated that the children showed progress both in the academic and attention fields. Some of the participants whose children received drug treatment stated that their children were calmed but they did not observe any changes in the academic field. The participants who stated that their children benefited in terms of both academic and attention aspects were coded into both fields.

*'We have received drug therapy for almost 2 years. I think the potential of my child is fulfilled, throughout this period he has been one of the best students in his class'. (P-15)*

‘It’s been a very short time since we started drug therapy. I notice that his attention increases, even though there are some negative issues. We did not observe any progress in terms of education’. (P-3)

**Table 5. The participants’ answers to the question: What do you expect from the medicines given to your child? What kind of change do you expect?**

Statements	<i>f</i>
Everything to turn back to normal	9
Being able to express himself well	2
Adapting to his classes better	3
Total	22

As stated in Table 4, when they are asked ‘What do you expect from the medicines given to your child? What kind of change do you expect?’ the majority of the participants whose children received drug therapy stated that they expected their children to turn back to normal, and be able to express themselves better. Some of the parents stated that they expected just to be more successful in their classes.

*‘We certainly benefited from the healthcare services, my child started reading, and—even if it is still slow—he is progressing. However, I expected him to be completely normal’. (P-17)*

*‘I was expecting the problems my son experienced before to be solved in other words to be able to focus on the class without getting isolated. He focused on the lessons after the treatment but he is isolated from his friends’. (P-1)*

**Table 6. The participants’ answers to the question: Have you experienced any problems during drug therapy, if so what are they?**

Statements	<i>f</i>
Social Problem	8
Anger	2
No problems	5
Total	14

In Table 6, the participants’ statements regarding the problems they experienced during drug therapy. The majority of the participants experienced social problems and the child’s communication decreased. Some of the participants stated that they did not experience any problems while some others stated that they observed aggressive behaviours in their children.

*‘The greatest damage caused by healthcare services is that the child cannot socialise. Medicines work positively in terms of attention, but he doesn’t want to communicate with his friends. I experimented this situation by occasionally cutting the use of medicines. When we stop the treatment, we experience problems with his education’. (P-20)*

*‘My son’s aggressive behaviour has increased recently, and I think this is the reason’. (P-4)*

**Table 7. The participants’ answers to the question: Have you ever considered stopping drug therapy? Why?**

Statements	<i>f</i>
I’m afraid that it may cause addiction	5
I’m afraid that these drugs will go into his record in the future	6
No, I haven’t thought	3
Total	14

Table 7 presents the answers of the participants to the question ‘Have you ever considered stopping drug therapy?’ When the answers are investigated, a great majority of the parents thought

to stop the treatment based on various reasons. Among these reasons, the most frequent one is that the child may face problems during adulthood or when he applies for a job in the future, because of the drug mentioned in his record. Some of the participants shared their views as they are afraid that the child may become addicted to drugs. Some of the participants stated that they haven't thought to stop the treatment and they will go on receiving drug therapy.

*'I think about leaving the drug each time I give it to my son. Because I'm afraid that it may cause addiction. I always struggle with the idea that I should have let him accomplish whatever he can without the medicines'. (P19)*

*'I did not want to start the treatment at all, but we started and we've seen the benefits as well. However, my son wants to be a pilot in the future, and I wonder what if he can't become because of the drugs'. (P-5)*

**Table 8. The participants' answers to the question: Have any alternative treatments been suggested?**

Statements	f
Cupping therapy	3
Herbal medicines	3
Food supplements	4
Not suggested	15
Total	25

Table 8 presents the participants' answers to the question; 'Have any alternative treatments been suggested?', and the majority of the answers were 'Not suggested'. Other participants stated that they were suggested food supplements, herbal medicines or cupping therapy. The participants tried only herbal treatment among the suggested alternative treatments.

*'One of my relatives told that cupping therapy treats such illnesses, but we did not apply it'. (P-6)*

*'It is told that herbal treatment methods are good for this problem. We implemented herbal treatment for a while, but we did not observe any developments'. (P-21)*

**Table 9. The participants' answers to the question: What do you expect from the education provided to the child?**

Statements	f
I expect him to develop in terms of reading and writing.	12
Gaining responsibility	5
Stopping the treatment	5
I don't know	3
Total	25

Table 9 presents the answers of the participants to the question 'What do you expect from the education provided to the child?', and the majority of the parents stated that they expect their children to improve in terms of reading and writing. Some of the participants stated that they expect that after education they won't need the treatment. A few participants stated that they don't know how education will benefit their children.

*'I expect that the education provided to my child will help him to undertake more responsibility, and behave like other children'. (P-9)*

*'I expect him to be better in terms of reading, writing and mathematics'. (P-23)*

*'I expect positive results but I don't know the nature of the education provided to the children like ours, therefore I don't know what to expect'. (P-7)*

**Table 10. The participants' answers to the question: What development area did your child benefit from the educational situations?**

Statements	<i>f</i>
Reading, writing and mathematics	6
Self-confidence	3
I don't know	1
Total	10

Table 10 presents the answers of the parents to the question 'What development area did your child benefit from the educational situations?', and most of the participants stated that they benefited from the special education provided to the child in terms of the academic aspects. Some of the parents stated that their children gained self-confidence, and one of the parents did not share his views.

*'We benefited a lot in terms of reading and writing. He can read, even if it is slower compared to his friends'. (P-11)*

*'His participation in the lessons in reading and writing classes and other classes changed his way of expressing himself. He gained self-confidence'. (P-13)*

**Table 11. The participants' answers to the question: What are the situations in education that do not meet your expectations?**

Statements	<i>F</i>
He doesn't receive an education appropriate to his characteristics	7
The education provided in a special education institution and at school are different	3
The needs of the children are not determined	5
Total	15

Table 11 presents the answers of the parents to the question 'What are the situations in education that do not meet your expectations?', and the majority of the parents stated that they cannot receive proper education in terms of the attention characteristics of the children. Some of the parents stated that special education and mainstream education do not support each other. Some of the participants stated that their children's needs are not analysed, a standard education for every child is provided.

*'The main problem of the children is problems related to attention and social problems. But the education provided to them does not target these issues'. (P-24)*

*'The special education provided to my child is on reading, writing and mathematics. The nature of these subjects is also different from the subjects provided at school; therefore, it confuses him more'. (P-13)*

*'A standard education is provided to all of the children, as though they had been all the same'. (P-7)*

**Table 12. The participants' answers to the question: What suggestions would you make to make the lives of children with ADHD easier?**

Statements	<i>f</i>
Early intervention	5
Increasing the consultancy services	6
Complete identification of problematic characteristics of children	5
Conducting activities to improve their social skills	4
Parent training programmes need to be organised	5
Total	25



Table 12 presents the answers given to the question 'What suggestions would you make to make the lives of children with ADHD easier?', and the majority of the participants stated that consultancy services need to be improved. Other participants shared their opinions as the children's participation in social activities need to be supported, early intervention is required and parent training programmes need to be organised. Some of the participants stated that the attention problems of the children with ADHD, which is their main problem, need to be determined and the education should target these problems.

*'My son was at 2nd grade until his problem has been diagnosed, I think it would be better to diagnose earlier. Because my son's problem could be detected in the 2nd grade, whatever we do, we are 2 years behind. This causes great problems for my child'. (P-13)*

*'My son was diagnosed with ADHD but knowing this is not enough for me. I don't know what to do as a mother to support him to overcome this situation. I feel the need to be trained on what I can do for my child'. (P-21)*

*'Even if my child learned Mathematics and Turkish, he doesn't know how to communicate with other people and other essential social behaviours. I don't know how to teach them. I think the biggest problem of children with ADHD is the social deficiencies; therefore, training programmes on this issue need to be provided'. (P-16)*

#### **4. Discussion and results**

ADHD symptoms are the developmentally inappropriate inattention, impulsivity and/or motor activity problems associated with functional impairment (American Psychological Association, 2000). The symptoms of ADHD are typically observed in early childhood and continue throughout life (Barkley, 2006; Weyandt & DuPaul, 2006). ADHD typically shows up in the early stages of life and the academic, social and behavioural problems in children are among the most widespread characteristics (Barkley, 2006). The individuals with these deficiencies need multimodal intervention. This study aimed to evaluate the education and healthcare services provided to children with ADHD through parent views. In this respect, parents were asked questions and their answers were analysed and discussed critically with the literature.

In literature, the most effective treatments for ADHD include psychostimulant drugs and behaviour strategies in home-school settings (Barkley, 2006). The studies reveal that when the unimodal and multimodal effect of the mentioned strategies are compared, it can clearly be seen that the multimodal approach is more effective compared to the unimodal approach in dealing with ADHD (Weyandt & DuPaul, 2006). There exist many studies supporting the successful results of the multimodal approach. The formation of ADHD is usually explained with many factors such as psychological and neurobiological factors (inability to regulate activities in the brain and the transport of stimuli), inability to regulate emotions, memory problems and lack of self-motivation (Lauth & Schlottke, 2002; Lauth & Heubeck, 2006; Lauth & Naumann, 2009). Since ADHD can be explained resulting from the combination of many factors, the treatment studies should also have a multimodal character (Dopfner & Lehmkuhl, 2005; Kaymak Ozmen, 2011). The literature shows that multimodal applications are more successful. The current study revealed that the majority of the participants received either drug therapy or education services. The number of participants who received both services is below average.

In the current study, when the parents are asked to explain the problems they faced with their ADHD children, they mostly mentioned social behaviours rather than academic activities. It is stated in the literature that children with ADHD experience serious problems during secondary and high school education (Barkley, Fischer, Smallish & Fletcher, 2004; Mannuzza, Klein & Moulton, 2008) in terms of social relations and they have a higher tendency toward criminal behaviours compared to their peers without ADHD. The parents' description of their children fits into the problems mentioned in the literature.

One of the results of the present study is that the majority of the parents stated that they showed progress in terms of both academic and attention focus of their children when they are asked about the areas that they benefit most from drug therapy, their expectations and whether they experienced any problems or not. However, they stated that their expectations such as their children would completely turn back to normal and express themselves better were not fulfilled. The majority of the parents stated that after drug therapy, their children experienced social problems and their social communication decreased. The studies in the literature supported this finding. Although psychotropic drug treatment in children and adolescents controls ADHD symptoms, it is determined that they are not effective for all dimensions and the various school-based practices have critical importance (Conners et al., 2001).

When the literature is reviewed in terms of the alternative treatments for children with ADHD, those treatments mainly included diets, biofeedback, massage, meditation, perceptual training and neurofeedback. Most of these studies have promising pilot data; however, no systematic clinical study exists in this field. Some of these treatments may be applied to the children with ADHD, based on the first evaluations. Most of the alternative treatment methods need further studies to determine their effectiveness and/or the applicable subgroup (Arnold, 2001). In the present study, the participants stated that they were offered alternative treatment methods such as food supplements, herbal treatments and cupping therapy. However, it is concluded that they did not go through a systematic treatment procedure.

Conners et al. (2001) and Molina, Hinshaw, Swanson, et al, (2009) found out in their studies that after a multimodal treatment, the children with ADHD needed a lower dose drug treatment for the symptoms of ADHD. The present study reveals that when the expectations of the parents are inquired, they stated that after the education, they expected the removal of the need for the drug treatment. Those expectations of the parents were in line with the findings of the studies by Conners et al. (2001) and Molina, Hinshaw, Swanson, et al. (2009).

Kaymak Ozmen (2011) evaluated the effects of parent training, teacher training and attention training programmes on the problematic behaviours in the daily life of a child with ADHD. At the end of the study, it was found out that the child's problematic behaviours in his daily life started to change positively. The same positive effect was maintained through the implementation of teacher training and attention training programmes. The positive change was observed in the monitoring evaluation conducted after 7 months at school. Ilik (2017) found similar results in her study as well. The results revealed that the attention training provided to the children was found to be successful in the attention tests implemented to the children, and the teachers also stated that they observed the change in children's attention processes. The current study revealed that the parents observed the benefits of the special education programmes implemented to their children in terms of the academic field and increasing the self-respect of the children.

The present study revealed that the main problem that the parent experiences regarding education is that the lack of appropriate education to their children's attention characteristics, whereas the main problems of ADHD include attention problems and lack of self-direction. Therefore, the implementations should be focused on helping the children direct themselves properly (e.g., self-instruction, self-control, problem-solving instruction) (Dopfner & Lehmkuhl, 2005; Kaymak Ozmen, 2011). One of the main problems of the parents regarding education is that the education provided at the special education institutions do not support the education provided at mainstream institutions. This problem leads to think that the nature of education may increase the attention and perception problems of the children.

When the suggestions of the parents in the current study are considered, they stated that they need to be guided about their children and there exist studies highlighting this need as well. The parent training programmes are accepted as an effective method of preventing the developmental risks or current problems, especially in younger children. The developmental risks may turn the external orientation problems, especially ADHD into a permanent issue (Petermann, Petermann &

Franz, 2010). In this respect, the *parent training* programmes are important to prevent future risks (Kaymak Ozmen, 2011).

1. The number of multimodal applications should be increased.
2. The parents should be trained on ADHD.
3. The teachers need to be provided with the practical training programmes on ADHD.

## References

- American Psychiatric Association (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). DSM-5 Arlington, VA: American Psychiatric Association;
- Arnold, L. E. (2001). Alternative treatments for adults with attention-deficit hyperactivity disorder (ADHD). *Annals of the New York Academy of Sciences*, 931, 310–341.
- Aydin, H., Diler, R. S., Yurdagul, E., Uguz, S. & Seydaoglu, G. (2006). ADHD rate in parents of children with ADHD. *Turkish Journal of Clinical Psikiyatri*, 9(2), 70–74.
- Barkley, R. A. (2006). Attention-deficit/hyperactivity disorder. In D. A. Wolfe & E. J. Mash (Eds.), *Behavioral and emotional disorders in adolescents: nature, assessment, and treatment* (pp. 91–153). New York, London: The Guilford Press.
- Barkley, R. A., Fischer, M. Smallish, L. & Fletcher, K.(2004). Young adult follow-up of hyperactive children: antisocial activities and drug use. *Journal of Child Psychology Psychiatry*, 45(2), 195–211.
- Conners, C. K., Epstein, J. N., March, J. S., Angold, A., Wells, K. C., Klaric, J., ... Greenhill, L. L. (2001). Multimodal treatment of ADHD in the MTA: an alternative outcome analysis. *Journal of the American Academy of Child & Adolescent Psychiatry*, 40(2), 159–167.
- Dogaroglu, T. K. (2013). Research attention deficit and hyperactivity disorder on graduate thesis and Dissertation in Turkey, *Journal of Computer and Educational Research*, 1(2), 90–112. Retrieved from <https://dergipark.org.tr/tr/pub/jcer/issue/18614/196497>
- Dopfner, M. & Lehmkuhl, G. (2005). Storungen der aufmerksamkeit und hyperaktivitaet. In P. F. Schlotzke, R. K. Silbereisen, S. Schneider & G. W. Lauth (Eds.), *Storungen im kindesundJugendalter- Grundlagen und storungen im entwicklungsverlauf* (pp. 609–648). Gottingen, Germany: Hogrefe Verlag.
- Erdogan, E. (2002). Frontal and parietal dysfunction in attention deficit hyperactivity disorder. *Klinik Psikiyatri Dergisi*, 3(5), 145–150.
- Franke, Y. (1996). Attention deficit hyperactivity disorder. In Y. Franke (Ed.), *Pediatric behavioral neurology* (pp. 179–229). London, UK: CRC Press.
- Goldman, L. S., Genel M., Bezman R. J. & Slanetz P. J. (1998). Diagnosis and treatment of attentiondeficit/hyperactivity disorder in children and adolescents. *JAMA*, 279(14), 1100–1107.
- Grice, D.E., Rasmusson, A.M., & Leckman, J. F. (1994). Childhood psychiatric disorder. *Review of Psychiatry*, 13, 303–305.
- Hesapcioglu, S. T., Celik, C., Ozmen, S. & Yigit, I. (2016). Analyzing the WISC-R in children with ADHD: The predictive value of subtests, Kaufman, and Bannatyne categories. *Turkish Journal of Psychiatry*, 27(1), 31–40. doi:10.5080/u7985
- İlik, S. (2017). The effect of individual attention training implemented on students without attention deficit hyperactivity on the skills of focusing attention and in-class activities. *Sakarya University Journal of Education*, 7(2), 324–335. doi:10.19126/suje.275315
- Karaduman, D. (2004). *The effect of attention training program on fourth and fifth grade primary school students attention, self concept and achievement levels* (Unpublished PhD Tesis, University of Ankara).
- Kaymak Ozmen, S. (2011). The effect of multimodal trainings on attention deficit hyperactivity disorder. *Education and Science*, 36, 161.
- Kaymak, S. (2003). *Improving the concentration skill of children attending the second and third classes of a primary school* (Unpublished PhD Thesis, University of Ankara).
- Klein, C. H., Raschke, A. & Brandenbusch, A. (2003), Development of pro- and antisaccades in children with attention-deficit hyperactivity disorder (ADHD) and healthy controls, *Psychophysiology*, 40(1), 17–28. doi:10.1111/1469-8986.00003

- Lauth, G. W. & Heubeck, B. (2006). *Kompetenztraining für Eltern sozial auffälliger Kinder (KES)*. Gottingen, Germany: Hogrefe Verlag.
- Lauth, G. W. & Naumann, K. (2009). *ADHS in der Schule*. Weinheim. Basel, Switzerland: Beltz PVU.
- Lauth, G. W. & Schlottke, P. F. (2002). *Training mit aufmerksamkeitsgestorten Kindern*. Weinheim, Germany: Beltz PVU.
- Mannuzza, S. Klein, R. G. & Moulton, J. L. (2008) III Lifetime criminality among boys with attention deficit hyperactivity disorder: a prospective follow-up study into adulthood using official arrest records. *Psychiatry Research*, 160(3), 237–246.
- Molina, B. S., Hinshaw, S. P., Swanson, J. M., et al, (2009). The MTA at 8 years: prospective follow-up of children treated for combined-type ADHD in a multisite study. *Journal of American Academy of Child and Adolescent Psychiatry*, 48(5), 484–500.
- Ozcan, C. & Ogulmus, S.(2010). Contribution of interpersonal cognitive problem-solving strategy to children with Attention Deficit Hyperactivity Disorder. *TAF Preventive Medicine Bulletin*, 9(4), 391–398 ref.38
- Ozcan, C. T., Oflaz, F. & Durukan, I. (2010). Contribution of teaching an interpersonal cognitive problem-solving strategy to children with attention deficit hyperactivity disorder treated with a psychostimulant drug. *Bulletin of Clinical Psychopharmacology*, 20(2). doi:10.1080/10177833.2010.11790646
- Petermann, U. Petermann, F. & Franz, M. (2010). *Kindheit und Entwicklung*, 19, 67–71. doi:10.1026/0942-5403/a000010. © Hogrefe Verlag.
- Rajeh, A. et al. (2017), Interventions in ADHD: A comparative review of stimulant medications and behavioral therapies. *Asian Journal of Psychiatry*, *AJP*, 25, 131–135.
- Weyandt, L. L. & DuPaul, G. (2006). ADHD in College Students, *Journal of Attention Disorders*, 10(1), 9–19, doi:10.1177/1087054705286061
- Yapicioglu B., Kavakci, O., Guler, A. S., Semiz, M. & Dogan, O. (2011), Adult ADHD prevalence in Sivas province and comorbid axis-I, axis-II diagnoses. *Anatolian Journal of Psychiatry*, 12, 177–184.
- Yildirim, A. & Simsek, H. (2013). *Nitel Araştırma Yöntemleri*. Ankara, Turkey: Seckin Yayıncılık.