



Original Article

Preschool children with attention deficit hyperactivity disorder: Iranian fathers' experiences

Zahra Hossainzadeh Maleki¹; *Kazem Rasoolzadeh Tabatbaei²;
Ali Mashhadi³; Fatemeh Moharreri⁴

¹Ph.D. student in psychology, Department of psychology, School of Humanities, Tarbiat Modares University, Tehran, Iran

²Associate professor, Department of psychology, School of Humanities, Tabiat Modares University, Tehran, Iran

³Associate professor, Department of psychology, Faculty of Education Sciences and Psychology, Ferdowsi University of Mashhad, Mashhad, Iran

⁴Associate professor of child and adolescent psychiatry, Psychiatry and Behavioral Sciences Research Center, Mashhad University of Medical Sciences, Mashhad, Iran

Abstract

Introduction: Attention Deficit Hyperactivity Disorder (ADHD) is one of the most common disorders in children, but so far little attention has been paid to the fathers of these children and what they experience. This study aimed to provide a deeper understanding of life experiences of Iranian fathers with ADHD preschoolers.

Materials and Methods: A qualitative design using phenomenological approach was chosen as the research method. It consisted of 9 fathers with 4-6 years old children suffering from ADHA, who were recruited through purposive sampling until saturation was reached. Information was collected through in-depth interview. Colaizzi method was used to analyze the interviews.

Results: The essential structure of fathers' experiences was "constant exposure to daily challenges", which included the following main categories: ups and downs of effective behavior management, dissatisfaction with mental health services, and undesirable interactions.

Conclusion: Increased awareness about life experiences of fathers of ADHD preschoolers helps in orienting functions and providing support.

Keywords: Attention deficit hyperactivity disorder, Experiences, Fathers, Phenomenologic, Preschooler

Please cite this paper as:

Hossainzadeh Maleki Z, Rasoolzadeh Tabatbaei K, Mashhadi A, Fatemeh Moharreri F. Preschool children with attention deficit hyperactivity disorder: Iranian fathers' experiences. *Journal of Fundamentals of Mental Health* 2018 Jul-Aug; 20(4): 283-93.

*Corresponding Author: Department of psychology, School of Humanities, Tabiat Modares University, Tehran, Iran

rasoolza@modares.ac.ir

Received: Apr. 25, 2018

Accepted: Jun. 02, 2018

Introduction

Most of the individuals with Attention Deficit Hyperactivity Disorder (ADHD) receive this diagnosis, and start treatment, during their school years (1). However, recent research in three areas of prevalence, outcomes, and treatment of ADHD, has increased attention to identifying and, as a result, providing interventions for these individuals during the preschool years. First of all, the high prevalence of ADHD in preschoolers, which is estimated to be 2-7%, has turned ADHD to one of the most common reasons for referring to mental health services (2-5). Second, there is evidence which has highlighted the outcomes of suffering from ADHD in the early years of life. These studies have shown that preschool ADHD may have negative and extensive implications for children's functions and development (6). Furthermore, these outcomes often continue throughout the individuals' life, going beyond their own lives and affecting families and societies, too (7,8). It is noticeable that many studies have shown more psychiatric comorbidities in ADHD preschoolers, and this higher comorbidity rate may increase the incidence and severity of these negative outcomes (9,10). The third set of findings was research supporting the impacts of early intervention in the preschool years; this evidence has shown that early intervention not only reduces the symptoms severity, but also prevents the negative outcomes (11,12). Accordingly, the specialists have paid more attention to preschool interventions (13).

Pharmacotherapy and psychosocial interventions are two evidence-based approaches to treatment of ADHD (14). Those studies focusing on preschool years have reported higher rates and severity of side effects in this age group, and underlay developing psychosocial interventions for ADHD preschoolers (14,15). Focusing on determinatives of symptom incidence and the expansion of ADHD outcomes has increased the effectiveness of psychosocial

approaches (11,16). Although heritability estimate of ADHD is 77% (17,18), particularly in preschool years (20,21), environmental factors play an important role in symptoms and outcomes of this disorder (9,19). The ability to control environmental factors has allowed ADHD therapeutic interventions to focus on these factors (5). Particularly in preschool years, parents are the most important environmental factors in children's everyday life (22,23). They play a crucial role in referral, diagnosis and treatment of their children's ADHD; hence research evidence supports the psychosocial interventions focusing on these children's parents significantly (24-28). However, providing psychosocial interventions and getting the best results are challenging. For example, today, Parental Training (PT) is the first line treatment in preschool ADHD (14); however, the high rate of therapy drop-out limits its positive results (26,29). Considering the importance of parent-related variables, such as the relationship between the quality and quantity of parent-child interactions and the symptoms and outcomes of ADHD, researchers believe that specialists' increased awareness about parents and their experiences is crucial to promote the effectiveness of the existing interventions and design new ones (8,22,30).

Literature review of ADHD implies that the disorder affects mothers and fathers differently (31,32). However, most of the conducted studies examine mothers and there are much less studies considering fathers in general, and preschoolers' fathers in particular (32,33). However, these few studies have revealed valuable results about the mutual effects between fathers and their ADHD children. For example, they have shown that only fathers' lower levels of participation in parenting and their instability in parenting styles are related to the children's attention deficit (34). Furthermore, during the preschool years, parental sensitivity during father-child interactions affects children's self-

organizing and attention skills (16). These studies also show that having ADHD children affects psychological health and functions of fathers (32). Since the presence of fathers in ADHD interventions has significant positive outcomes both for their children and themselves (28,35), their participation is crucial for promoting the effectiveness of interventions (32). Evidence has shown that, despite of fathers' willingness to help their children reaching positive achievements, their participation get limited by the feeling that the existing services don't match their needs (36). Therefore, increased awareness about experiences of the fathers of ADHD children is important to promote the effectiveness of the existing interventions and design new ones (32). For this purpose, the current study has examined the experiences of fathers with ADHD preschoolers, and the qualitative research method has been used to provide a deep understanding.

Materials and Methods

This is a qualitative phenomenological study. Phenomenology aims at describing the essential structure of a phenomenon. In this study, this phenomenon is daily experiences of fathers with ADHD preschoolers. Life experiences are manifestations of an individual's unique perspective on everyday life which is conveyed through words, personal feelings, attitudes, and behaviors (32,37).

The statistical population of this study was Iranian fathers of ADHD preschoolers. The participants were recruited through purposive sampling until saturation was reached. The inclusion criterion was fathers being the primary caregivers and biological fathers of ADHD preschoolers (4-6 years old), who had been diagnosed with ADHD by a child and adolescent psychiatry specialist at least three months before the study. Furthermore, the participants were ready to share their experiences and able to express their feelings and thoughts clearly.

Unstructured interviews were used for data collection, as their flexibility make them appropriate for qualitative research (38). Each interview lasted for 75 to 90 minutes and the participants talked about what they had experienced as fathers when they had sensed that their children were different. The interviews were conducted in a quiet and safe room. The saturation was reached with 9 participants and during a four months period. Data analysis was performed using Colaizzi (1978) method and, accordingly, the interviews were scrutinized and their meaning units were identified. The meanings of important statements were coded to establish a profile, and statements with similar, but not the same, meanings were included in the same category. Those categories with the same central meanings were combined. The analytical steps were followed as much as possible. Main titles and subjects were applied to categories and they were organized as the character of fathers' life experiences. At the end, the final approval depended on respondents and specialists' evaluations (39).

In the current study, the process of attaining reliability and validity is based on applicability, truth value, consistency, and neutrality (40). Applicability was provided through paying attention to the extension of age range and sociocultural backgrounds of participants. Truth value was assured through examining the content obtained from the participants and receiving their approval. Consistency was attained through paying attention to participants' identical answers to the similar questions which were asked in different ways. Neutrality is assured by focusing on conduction the research process without any bias. To do so, the written answers and the related documents were kept and the researchers' presumptions were not allowed to intervene in the research in general, and in the result stage in particular.

In this research, ethical considerations were applied through confidentiality,

honesty and subjects' volunteer participation. It was assured that the participants had understood the written informed consent form thoroughly. Furthermore, the fathers were told that they were allowed to leave the study anytime they wanted.

Results

The average age of fathers was 41.5 years, and they had between 1 to 4 children. Their degree levels were in a range of second grade of intermediate school to specialty in medicine. In this spectrum, 2 individuals had doctoral or higher degrees, 1 had master's degree, 2 had bachelor's degrees, and 4 had diploma or lower degrees.

The essential structure of life experiences of the fathers with ADHD preschoolers was extracted as follows: "constant exposure to daily challenges." This

structure was organized based on three main categories: ups and downs of effective behavior management, dissatisfaction with mental health services, and undesirable interactions. These items include seven sub-categories: helplessness and disappointment, efficiency and hope, diagnosis and pharmacotherapy, spending time and money, inefficient information, conflict with spouse, problems in other interactions (Table 1). All of the 9 participants of this study talked about categories of ups and downs of effective behavior management, undesirable interactions, and sub-categories of these two categories, and 7 of these fathers referred precisely to the category of dissatisfaction with mental health services and its sub-categories.

Table 1. Main categories and sub-categories of life experiences of Iranian fathers with ADHD preschoolers

Essential structure	Main categories	Sub-categories
Constant exposure to daily challenges	Ups and downs of effective behavior management	Helplessness and disappointment
		Efficiency and hope
	Dissatisfaction with mental health services	Diagnosis and pharmacotherapy
		Spending time and money
		Inefficient information
	Undesirable interactions	Conflict with spouse
		Problems in other interactions

Constant exposure to daily challenges

Fathers with ADHD preschoolers gain limited achievements compared to the amounts of effort they make and, as the children grow older, the problems become more complicated. Therefore, confronting constant and ever-increasingly updated challenges expose these Iranian fathers to significant difficulties.

Ups and downs of effective behavior management

This category includes fathers' experiences of applying parenting styles for managing the ADHD child's behaviors. Along this path, whenever they couldn't reach their goals, they felt helpless, and whenever they achieved success, their sense of hope and efficiency in overcoming the challenges revived.

a) Helplessness and disappointment

The inefficiency of the methods that these fathers used to manage behaviors such as hyperactivity, aggressiveness, and not following the demands, made them feel helpless. Higher age of the child, comparing him/her with his/her peers in different situations, such as kindergarten, and confronting the child's weakness in the face of ever-increasing demands of the environment, had revealed the developmental dimensions of the disorder more clearly and reinforced their sense of helplessness. This caused the fathers to get disappointed with the child's future and their ability to find a way for effective management of his/her behavior. Fathers' use of violence was an important factor which reinforced their sense of

helplessness and disappointment through developing a sense of guilt.

"He was different from the very beginning; his mother was on bed rest during pregnancy... When a child is healthy, you tell him something is inappropriate a couple of times and he stops doing it, but I tell him every day and he keeps doing it... I ask him kindly, use stories or play, blame him, ground him, I don't know how to treat him. I'm literally helpless; I don't think he gets better ever."

"Since I put a lot of time into him, I guess it's kind of my bad. As he grows older, the problems grow bigger. He used to hit other kids in parties, now there is kindergarten, too... He makes me hit him and I feel I'm weak and helpless."

b) Efficiency and hope

Fathers' interest in understanding positive characteristics of their child and finding a way for effective management of his/her behaviors caused them to feel efficient and, subsequently, hopeful. Some of these fathers had found some strategies to improve their relationship with the children or increase their compliance, through examining their behaviors, using trial and error, and applying creativity. It caused them to have a more positive feeling about themselves, be motivated to keep trying, and develop hope for a better future for their children and the possibility of change.

"Maybe he won't become a doctor or an engineer, but he will definitely become a good football player. We play football with coworkers on Fridays, and grown-ups lose to him."

"We must pay careful attention to his behaviors. I've noticed that when she have a tantrum, not paying attention is more effective than yelling at her."

Dissatisfaction with mental health services

The fathers said that constant referrals to psychiatrists and psychologists were often proceeded by the mothers; however they had remarkable experiences in this area. These categories and sub-categories implied that most fathers not only do not

deal with the ADHD diagnosis for their children, especially their sons, easily, but they are also unsatisfied with the quality and quantity of time and money dedicated and the inefficiency of recommendations for the everyday life.

a) Diagnosis and pharmacotherapy

Most fathers emphasized that, although they had noticed some differences of the child before referral, mostly the mothers had arranged the first meeting with mental health staff and made them to follow the therapeutic process till the time of the interview. In fact, some of the fathers were against referral from the very first, and about half of them had not accepted the diagnosis yet. Despite the difficulties of effective management of children's behaviors, most of them believed that many of these behaviors are normal for children in general, and for boys in particular. Furthermore, some of the fathers said that they were or are against pharmacotherapy completely, and believed that to ensure the diagnostic accuracy, children should grow older. Besides, most of the fathers were unsatisfied that the interventions were limited to pharmacotherapy.

"His mother has insisted and we still come here because of her. When I was a kid, I was the same. Boys are like this. Medicating children is a new fashion."

"Her mother, who devotes more time, had noticed and searched... I think it's still soon and we should wait and see what happens later... I would prefer it if she didn't use any medications at all."

b) Spending time and money

Fathers believed that the difficulties in accessing to specialists had made them wait for a long time. For this reason, sometimes the onset of intervention had been postponed or there had been some breaks in it. On the other hand, work commitments or taking care of their other children limited their time, too. Furthermore, financial issues were important for fathers. Some of them

couldn't afford the therapy or considered its costs unreasonable.

"There is no specialist around us and we must reserve a visit at least two months earlier, I cannot work for a whole day, so I postpone it all the time."

"He always prescribed the same medicine, but we had to pay the whole fee. Furthermore, we can use the psychologist's fee for solving other problems."

c) Inefficient information

Fathers thought the existing services didn't provide them with necessary information, so they were not very eager to continue the visits. For example, they thought this information did not match their everyday needs in living with an ADHD child, or some of them said that information should not be limited to child-related issues and they need parent-related information, too. Furthermore, it was frequently mentioned that, in spite of the positive effects of the medicines, they preferred alternative interventions; however, they were not provided with comprehensive information about these interventions and the quality of their effectiveness.

"I ask some trivial questions about the exact issue with which I have problem, but, at the best, they respond with general answers or say, "Be patient." They just know the symptoms, not the solutions."

"We frequently ignore our own needs to meet his. My wife and I need to know how we should soothe ourselves or renew our energy... I have no faith in the medicines, but I don't know where and how to examine and choose other options."

Undesirable interactions

From the preschool years, the presence of an ADHD child affects the father's life and causes their daily interactions to become undesirable experiences. This has wide implications for interactions with spouse and, most of the time, creates conflicts or increases them, and affects the quality or quantity of the father's interactions with others.

a) Conflict with spouse

The fathers emphasized that most of their spousal conflicts were, either directly or indirectly, related to the ADHD child. For example, fathers and mothers' different points of view about referring to a specialist or the fatigue, caused by meeting frequent needs of the child, led to mild to severe conflicts of the couples. Fathers thought one of the most important issues of spousal conflict was the unnecessary worries of mothers and reciprocally accusing fathers of being neglectfulness. In general, shifting the responsibility for the child's problems onto each other often intensified the conflicts.

"[She] says this child is just like you, it's your fault... he hasn't even gone to school yet and she is worried about his school days. She tells me that I'm too thoughtless... His mother doesn't accept that the child's problems are because of her behaviors."

b) Problems in other interactions

The child's disorder affected other relationships of the father, too. Their relatives or the public saw them as the reason of the child's problems. They were ashamed of their children's behaviors and had to bear others' advices. The fathers reported that these conflicts were obvious in interactions with the more extended family or the authorities of educational environments. For example, they often got into quarrels, which damaged the quality and quantity of their interactions, to protect their children or save their wives from false accusations.

"Not only our relatives, but also the people in stores or parks, say to my face that I haven't raised my child appropriately or tell my wife that she doesn't know how to raise a child. It's really annoying... I'd rather not to go to parties. I'm really ashamed that he hits other children."

Discussion

This study aimed to provide a deeper understanding of life experiences of Iranian fathers with ADHD preschoolers. This study was one of the few ones which

exclusively focus on fathers and preschool years. The essential structure of this research was derived as "constant exposure to daily challenges," which, in line with other domestic and foreign studies, highlights the significant challenges of parents caused by their child's ADHD (22,41-44). This structure, in completion of the previous studies, shows that ADHD may affect the personal and social aspects of fathers, even since the preschool years. Here is a more comprehensive discussion about the three main categories and the related sub-categories.

The category of "ups and downs of effective behavior management" describes the fathers' efforts to play their parenting role from the early years of development, and is organized in two sub-categories of "helplessness and disappointment" and "efficiency and hope". Systematic review of the studies dedicated to the experiences of parents with ADHD children confirms that experiencing ups and downs in the course of parenting is common in these parents' everyday lives (45). Other qualitative studies of this area also support this finding strongly. For example, a study in Norway showed similar findings about manifesting mastery and feeling of inefficiency (44). Furthermore, a study in New Zealand showed that parents experience both hopelessness and hope in their interactions with their ADHD preschooler sons (32). The observation of "dissatisfaction with mental health services" category, despite their limited communication with these services, is worth noticing. It's important because, on one hand, other studies have shown fathers' dissatisfaction is related to the incongruity of services with their needs, and on the other hand, the three sub-categories of the current study are in line with the findings reporting a gap in Iran's mental healthcare services (46). Therefore, this category may be a reflection of remarkable challenges of Iran's mental health services. Strong evidence supporting the sub-categories is worth noticing, too. For example, previous

research confirms the lack of access to required information and limited knowledge of parents and mental health staff (46-51). Furthermore, it's been reported frequently that accepting ADHD and using pharmacotherapy are challenging topics, especially for preschool sufferers (12,13,50). It's also revealed that cost-inefficiency of the time and money that these services require is among the experienced difficulties and causes of dissatisfaction of the parents with ADHD children (26,45,52).

Previous research on families of ADHD children has frequently paid attention to the category of "undesirable interactions," and despite that the focus of this study was on Iranian fathers, the same category has been observed. Therefore, it seems that it's a common experience among all members of the family which is worth noticing (41,42,44). Furthermore, quantitative and qualitative research emphasizes that children's ADHD is related to raising and increasing family and spousal conflicts and is one of the most important stresses of the parents (52,53). Furthermore, senses of shame and guilt are common experiences which in most daily interactions upset these parents (42,46,48). In particular, the duplication of this category in this study, which is similar to other studies conducted in Iranian populations (52, 54), shows the contribution of cultural components to this category.

In general, the findings of this research support those studies that show paying attention to parents' needs and expectations may increase their participation in children's therapy (59), and acquiring awareness may facilitate the management of the situations (60), consider the parents' psychological well-being crucial (32,44) and verify the importance of parents' knowledge and preferences in therapy and clinical decision making for promoting therapists' competencies (32,44). Consequently, the higher prevalence of ADHD (55), the risk of abusing ADHD children in Iran (56) and the fathers' role in

early interventions (57,58), highlight the necessity of studying the fathers' experiences in order to provide comprehensive care from the very early years of development. However, this is a qualitative pilot study on preschool ADHD and its limitations should not be overlooked in applying and generalizing its findings. One of the limitations is that, although the qualitative nature of this study provides a deeper insight, the probable contributing cultural components should be considered when applying and generalizing its findings. Furthermore, the lack of qualitative studies on Iranian fathers' experiences about preschool ADHD prevents a more precise comparison. Therefore, we suggest that future studies use qualitative and quantitative methods to address the participation of fathers and their needs in interventions, pay attention to strategies of adjustment improvement, especially for couples' relationships, and prioritize the identification and accessibility of preschool ADHD-focused information.

References

1. McCann DC, Thompson M, Daley D, Barton J, Laver-Bradbury C, Hutchings J, et al. Study protocol for a randomized controlled trial comparing the efficacy of a specialist and a generic parenting programme for the treatment of preschool ADHD. *Trials*. 2014; 15(1): 142.
2. Sayal K, Prasad V, Daley D, Ford T, Coghill D. ADHD in children and young people: prevalence, care pathways, and service provision. *Lancet Psychiatry* 2018 Feb;5(2):175-186.
3. Visser SN, Bitsko RH, Danielson ML, Ghandour RM, Blumberg SJ, Schieve LA, et al. Treatment of attention deficit/hyperactivity disorder among children with special health care needs. *J Pediatr* 2015; 166(6): 1423-30.
4. Lavigne JV, LeBailly SA, Hopkins J, Gouze KR, Binns HJ. The prevalence of ADHD, ODD, depression, and anxiety in a community sample of 4-year-olds. *J Clin Child Adolesc Psychol* 2009; 38(3): 315-28.
5. Canals J, Morales-Hidalgo P, Jané MC, Domènech E. ADHD prevalence in Spanish preschoolers: comorbidity, socio-demographic factors, and functional consequences. *J Attention Disord* 2018; 22(2): 143-53.
6. Riddle MA, Yershova K, Lazzaretto D, Paykina N, Yenokyan G, Greenhill L, et al. The preschool attention-deficit/hyperactivity disorder treatment study (PATS) 6-year follow-up. *J Am Acad Child Adolesc Psychiatry* 2013; 52(3): 264-78.
7. Babakhanian M, Sayar S, Babakhanian M, Mohammadi G. Iranian children with ADHD and mental health of their mothers: The role of stress. *Iranian journal of psychiatry and behavioral sciences* 2016; 10(1): e2026.
8. Chorozoglou M, Smith E, Koerting J, Thompson MJ, Sayal K, Sonuga-Barke EJ. Preschool hyperactivity is associated with longterm economic burden: evidence from a longitudinal health economic analysis of costs incurred across childhood, adolescence and young adulthood. *J Child Psychol Psychiatry* 2015; 56(9): 966-75.

Conclusion

The findings of the current study show that ADHD of preschoolers makes effective behavior management hard for fathers and affects their relationships, and yet the existing services do not satisfy them thoroughly. As a result, fathers are constantly exposed to ADHD-related challenges. Each of these main and subcategories can be a potential therapeutic goal for promoting the existing interventions and providing new ones.

Acknowledgment

The findings of this study are parts of a PhD thesis under the supervision of Department of Psychology of Tarbiat Modares University, Tehran. The study was conducted without any foundation's financial support and the authors earned no profit from it. The authors are thankful to Special Clinic of Ibn-e-Sina Psychiatric Center affiliated to Mashhad University of Medical Sciences, Soroush psychotherapy and Counseling Center and the participants.

9. Nigg J, Nikolas M, Burt SA. Measured gene-by-environment interaction in relation to attention-deficit/hyperactivity disorder. *J Am Acad Child Adolesc Psychiatry* 2010; 49(9): 863-73.
10. Chronis-Tuscano A, Lewis-Morrarty E, Woods KE, O'Brien KA, Mazursky-Horowitz H, Thomas SR. Parent-child interaction therapy with emotion coaching for preschoolers with attention-deficit/hyperactivity disorder. *Cognit Behav Pract* 2016; 23(1): 62-78.
11. Sonuga-Barke EJ, Halperin JM. Developmental phenotypes and causal pathways in attention deficit/hyperactivity disorder: potential targets for early intervention? *J Child Psychol Psychiatry* 2010; 51(4): 368-89.
12. Sonuga-Barke EJ, Brandeis D, Cortese S, Daley D, Ferrin M, Holtmann M, et al. Nonpharmacological interventions for ADHD: systematic review and meta-analyses of randomized controlled trials of dietary and psychological treatments. *Am J Psychiatry* 2013; 170(3): 275-89.
13. Charach A, Carson P, Fox S, Ali MU, Beckett J, Lim CG. Interventions for preschool children at high risk for ADHD: a comparative effectiveness review. *Pediatrics* 2013; 131(5): e1584-604.
14. Evans SW, Owens JS, Wymbs BT, Ray AR. Evidence-based psychosocial treatments for children and adolescents with attention deficit/hyperactivity disorder. *J Clin Child Adolesc Psychol* 2018; 47(2): 157-98.
15. Charach A, Fernandez R. Enhancing ADHD medication adherence: challenges and opportunities. *Curr Psychiatr Rep* 2013; 15(7): 371.
16. Sonuga-Barke EJ, Thompson M, Abikoff H, Klein R, Brotman LM. Nonpharmacological interventions for preschoolers with ADHD: the case for specialized parent training. *Infants Young Children* 2006; 19(2): 142-53.
17. Nigg JT. Future directions in ADHD etiology research. *J Clin Child Adolesc Psychol* 2012; 41(4): 524-33.
18. Spencer TJ, Biederman J, Madras BK, Dougherty DD, Bonab AA, Livni E, et al. Further evidence of dopamine transporter dysregulation in ADHD: a controlled PET imaging study using altropine. *Biol Psychiatry* 2007; 62(9): 1059-61.
19. Martel MM, Nikolas M, Jernigan K, Friderici K, Waldman I, Nigg JT. The dopamine receptor D4 gene (DRD4) moderates family environmental effects on ADHD. *J Abnorm Child Psychol* 2011; 39(1): 1-10.
20. Min A, Ahn DH. Life persistence of Attention-Deficit/Hyperactivity Disorder. *Hanyang Med Rev* 2016; 36(1): 38-45.
21. Sonuga-Barke EJ, Koerting J, Smith E, McCann DC, Thompson M. Early detection and intervention for attention-deficit/hyperactivity disorder. *Expert Rev Neurother* 2011; 11(4): 557-63.
22. Peters K, Jackson D. Mothers' experiences of parenting a child with attention deficit hyperactivity disorder. *J Adv Nurs* 2009; 65(1): 62-71.
23. Webster-Stratton CH, Reid MJ, Beauchaine T. Combining parent and child training for young children with ADHD. *J Clin Child Adolesc Psychol* 2011; 40(2): 191-203.
24. Maleki ZH, Mashhadi A, Soltanifar A, Moharreri F, Ghamanabad AG. Barkley's parent training program, working memory training and their combination for children with ADHD: Attention Deficit Hyperactivity Disorder. *Iran J Psychiatry* 2014; 9(2): 47.
25. Kermani FK, Mohammadi MR, Yadegari F, Haresabadi F, Sadeghi SM. Working memory training in the form of structured games in children with attention deficit hyperactivity disorder. *Iran J Psychiatry* 2016; 11(4): 224.
26. Chacko A, Wymbs BT, Rajwan E, Wymbs F, Feirsen N. Characteristics of parents of children with ADHD who never attend, drop out, and complete behavioral parent training. *J Child Fam Stud* 2017; 26(3): 950-60.
27. Moldavsky M, Sayal K. Knowledge and attitudes about attention-deficit/hyperactivity disorder (ADHD) and its treatment: the views of children, adolescents, parents, teachers and healthcare professionals. *Curr Psychiatry Rep* 2013; 15(8): 377.
28. Harvey EA, Metcalfe LA, Herbert SD, Fanton JH. The role of family experiences and ADHD in the early development of oppositional defiant disorder. *J Consult Clin Psychol* 2011; 79(6): 784.
29. Johnson E, Mellor D, Brann P. Differences in dropout between diagnoses in child and adolescent mental health services. *Clin Child Psychol Psychiatry* 2008; 13(4): 515-30.

30. Tully L, Collins D, Piotrowska P, Mairet K, Hawes D, Moul C, et al. Examining practitioner competencies, organizational support and barriers to engaging fathers in parenting interventions. *Child Psychiatry Hum Dev* 2018; 49(1): 109-22.
31. Breaux RP, Harvey EA. A longitudinal study of the relation between family functioning and preschool ADHD symptoms. *J Clin Child Adolesc Psychol* 2018 Mar 26: 1-16. [Epub ahead of print]
32. Keown L. Fathering and mothering of preschool boys with hyperactivity. *Int J Behav Dev* 2011; 35(2): 161-8.
33. Caserta A, Fabiano GA, Hulme K, Pyle K, Isaacs L, Jerome S. A waitlist-controlled trial of behavioral parent training for fathers of preschool children. Evidence-based practice in child and adolescent mental health 2018: 1-11. [Epub ahead of print]
34. Ellis B, Nigg J. Parenting practices and attention-deficit/hyperactivity disorder: new findings suggest partial specificity of effects. *J Am Acad Child Adolesc Psychiatry* 2009; 48(2): 146-54.
35. Danforth JS. Parent training for families of children with comorbid ADHD and ODD. *Int J Behav Consult Ther* 2006; 2(1): 45.
36. Dubowitz H, Lane W, Ross K, Vaughan D. The involvement of low-income African American fathers in their children's lives, and the barriers they face. *Ambulatory Pediatrics* 2004; 4(6): 505-8.
37. Colaizzi PF. Psychological research as the phenomenologist views it. Oxford: Oxford University; 1978.
38. Speziale HS, Streubert HJ, Carpenter DR. Qualitative research in nursing: Advancing the humanistic imperative: Lippincott Williams and Wilkins; 2011.
39. Abalos EE, Rivera RY, Locsin RC, Schoenhofer SO. Husserlian phenomenology and Colaizzi's method of data analysis: Exemplar in qualitative nursing inquiry using nursing as caring theory. *Int J Hum Caring* 2016; 20(1): 19-23.
40. Holloway I, Galvin K. Qualitative research in nursing and healthcare: John Wiley and Sons; 2016.
41. Moen ØL, Hall Lord ML, Hedelin B. Living in a family with a child with attention deficit hyperactivity disorder: A phenomenographic study. *J Clin Nurs* 2014; 23: 3166-76.
42. Gharibi H, Gholizadeh Z. Phenomenology of mothers' experiences in living with children with AD/HD disorder. *Procedia Soc Behav Sci* 2011; 30: 1630-4.
43. Hermansen MS, Miller PJ. The lived experience of mothers of ADHD children undergoing chiropractic care: a qualitative study. *Clin Chiropract* 2008; 11(4): 182-92.
44. Moen ØL, Hall-Lord ML, Hedelin B. Contending and adapting every day: Norwegian parents' lived experience of having a child with ADHD. *J Fam Nurs* 2011; 17(4): 441-62.
45. Laugesen B, Groenkaer M. Parenting experiences of living with a child with attention deficit hyperactivity disorder: a systematic review of qualitative evidence. *JBI database of systematic reviews and implementation reports* 2015; 13(11): 169-234.
46. Ghanizadeh A, Zarei N. Are GPs adequately equipped with the knowledge for educating and counseling of families with ADHD children? *BMC Fam Pract* 2010; 11(1): 5.
47. Dodangi N, Vameghi R, Habibi N. Evaluation of knowledge and attitude of parents of Attention Deficit/Hyperactivity Disorder children towards Attention Deficit/Hyperactivity Disorder in clinical samples. *Iran J Psychiatry* 2017; 12(1): 42.
48. Ghanizadeh A. Educating and counseling of parents of children with attention-deficit hyperactivity disorder. *Patient Educ Couns* 2007; 68(1): 23-8.
49. Ahmed R, Borst JM, Yong CW, Aslani P. Do parents of children with attention-deficit/hyperactivity disorder (ADHD) receive adequate information about the disorder and its treatments? A qualitative investigation. *Patient preference and adherence* 2014; 8: 661.
50. Ahmed R, McCaffery KJ, Aslani P. Factors influencing parental decision making about stimulant treatment for attention-deficit/hyperactivity disorder. *J Child Adolesc Psychopharmacol* 2013; 23(3): 163-78.
51. Hummelinck A, Pollock K. Parents' information needs about the treatment of their chronically ill child: a qualitative study. *Patient Educ Couns* 2006; 62(2): 228-34.
52. Gharibi H, Fathi Azar E, Adib Y, Hatami J, Gholi Zadeh Z. Phenomenological experiences of mothers in living with children with ADHD. *Journal of Family Research* 2011; 7: 22-5. (Persian)

53. Hutchison L, Feder M, Abar B, Winsler A. Relations between parenting stress, parenting style, and child executive functioning for children with ADHD or autism. *J Child Fam Stud* 2016; 25(12): 3644-56.
54. Ghanizadeh A, Shams F. Children's perceived parent-child relationships and family functioning in attention-deficit/hyperactivity disorder. *Child Fam Behav Ther* 2007; 29(3): 1-11.
55. Talaei A, Mokhber N, Abdollahian E, Bordbar MRF, Salari E. Attention deficit/hyperactivity disorder: a survey on prevalence rate among male subjects in elementary school (7 to 9 years old) in Iran. *J Attention Disord* 2010; 13(4): 386-90.
56. Alizadeh H, Applequist KF, Coolidge FL. Parental self-confidence, parenting styles, and corporal punishment in families of ADHD children in Iran. *Child Abuse Negl* 2007; 31(5): 567-72.
57. DuPaul GJ, Kern L, Caskie GI, Volpe RJ. Early intervention for young children with attention deficit hyperactivity disorder: Prediction of academic and behavioral outcomes. *School Psychol Rev* 2015; 44(1): 3-20.
58. Rosenberg L, Maeir A, Yochman A, Dahan I, Hirsch I. Effectiveness of a cognitive-functional group intervention among preschoolers with Attention Deficit Hyperactivity Disorder: A pilot study. *Am J Occup Ther* 2015; 69(3): 6903220040p1-p8.
59. Hoagwood KE, Cavaleri MA, Olin SS, Burns BJ, Slaton E, Gruttadaro D, et al. Family support in children's mental health: A review and synthesis. *Clin Child Fam Psychol Rev* 2010; 13(1): 1-45.
60. Davis CC, Claudius M, Palinkas LA, Wong JB, Leslie LK. Putting families in the center: family perspectives on decision making and ADHD and implications for ADHD care. *J Attention Disord* 2012; 16(8): 675-84.