

Early Childhood Development and Iranian Parents' Knowledge: A Qualitative Study

Abstract

Background: Early childhood is the most important step throughout the lifespan and it is a critical period continuing to the end of 8-year-old. Mothers' knowledge is one of the important aspects of child development. The goals of this study were to determine the situation of knowledge in Iranian parents about the concept and the importance of early childhood development (ECD) and determining the sources of parental knowledge about ECD from the perspective of parents and grandparents. **Methods:** This qualitative study was conducted based on the directional content analysis in 2016. The purposive sampling method is utilized to select 24 participants among parents and grandparents in Tehran. The inclusion criteria consisted of speaking in Persian and having a child or grandchild <3-year-old. Data were collected through four focus group discussions and four individual interviews. **Results:** Iranian parental knowledge about integrative ECD is not enough, their knowledge about motor development and speech and language are relatively better, about cognitive development is little and socialemotional is very little. They said parents and other caregivers influence the process of children's development. Parents' knowledge resources about ECD included human resources, physical resources, virtual space, and the media. According to the majority of participants, "pediatricians are the most reliable source of parents' knowledge about ECD" even though the main focus of pediatricians is on treating diseases, physical health, and growth of children. **Conclusions:** According to the results, the knowledge of Iranian parent is not enough about ECD; therefore, actions must be taken to increase their knowledge in these domains. Parents look for reliable and valid sources to enhance their knowledge and they rely the most on pediatricians in this regard. Therefore, more studies on assessing parents' knowledge in community and the practical methods for knowledge promotion in this field is recommended.

Keywords: Early childhood development, Iranian parents' knowledge, qualitative study, resources knowledge acquisition

Introduction

Early childhood is the most important step throughout the lifespan and is also considered as a critical period continuing to the end of 8-year-old.^[1,2] In this period, rapid changes and development occur in the various systems of the body such as brain and nerve system. Early childhood development (ECD) occurs in the areas of motor, communication (speech and language), cognitive, and socioemotional.^[3] Children's health is considered as an investment and wealth in society.^[4,5] Interventions during this period are considered as one of the effective factors in the disease prevention and health promotion.^[6-8] Twelve and a half to fifteen percent of the population in developing countries^[9] and 8.29% of Iran's population consist of 0-4-year-old children.^[10] The

prevalence of developmental disorders in American children is reported 15.4%^[11] and in Iranian children, this figure is reported as 3.69%–22.4% based on various screening.^[12,13]

The knowledge and awareness of parents to understand norms, milestones, caregiving skills, and processes of child development as well as familiarity with child-care skills can be effective in the parents-child interaction,^[14,15] brain development,^[16] and promoting development of children.^[15,17-19] Eventually, such knowledge will impact the behavior toward child and the welfare of society.^[20] Parents are undoubtedly responsible for meeting children's needs and caring them as the infrastructure of their growth and survival.^[21] Parents' awareness about parenting and child development is an important aspect as role in cognitive

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motivation.^[22] They naturally seek to promote cognitive, emotional, and social competency of their children.^[23] Therefore, mothers' knowledge is one of the important aspects of child nurturing;^[15] more knowledgeable parents are more effective for their children.^[24] As the basis for planning educational materials required for ECD, parents' knowledge and their attitude toward teaching parents and other caregivers need to be closely taken into account.^[25] According to some studies, mothers with more information about childhood development provide more age-appropriate books and educational materials for their children. In addition, they more try to read books, speak, tell stories, and provide a better home environment for children.^[26,27] Jordanian mothers had more information about physical and safety abilities and less in cognitive, emotional, and parent–infant interaction abilities.^[28]

Although the difference in behavioral practices of parents with children is associated with social and demographic factors,^[29-31] according to the World Health Organization, all parents need information on norms of ECD.^[32] In each society, government officials and policymakers make decisions about the different ways to achieve the maximum capabilities of ECD.^[33] Therefore, identifying mothers' gap of knowledge provides the basis for better planning for educational interventions^[34] and people in each community are considered as the first source of information to determine the community's needs and problems.^[35] Notably, research on child development skills in the Arab world is inadequate.^[28] Taking into consideration the importance of the issue and the lack of adequate information about Iranian parents' situation of knowledge about ECD, the current study was conducted using a qualitative method and aims to achieve two objectives: determining Iranian parents' situation of knowledge about the concept and the importance of ECD and also the sources of parental knowledge about ECD from the perspective of parents and grandparents. The results of this study can be the basis for planning early interventions during the ECD for Iranian children.

Methods

According to the nature and purpose of the research, the present study was a qualitative research based on directional content analysis. A directional content analysis is used because the use of this method can discover concepts and experiences of participants and provide more deep explanations about the issues.^[36,37]

Data were collected in July 2016 through focus group discussions (FGDs) and individual interviews. Participants in Tehran (capital of Iran) were selected using purposeful sampling from parents and grandparents with consideration of maximum variation.^[38] This means that the parents who are willing to participate in discussions, speaking in Persian, having a child <3 years. The exclusions criteria were diagnosed disability related

to ECD. The classification of participants for FGDs was based on the education (under diploma and diploma and above diploma) and sex. The number of participant in each FGD was five (three FGD with mothers and one with fathers). The participants in individual interview were four grandparents with a grandchild <3 years who speaking in Persian. Interviews and FGDs were implemented in areas with convenient access for the participants.

Interviews and FGDs continued until data saturation and lack of acquiring new information; in other words, new ideas and concepts were not obtained by repeating interviews.

A guide questionnaire was used to conduct group discussions or individual interviews (semi-structured). The guide was developed after literature review and experts' opinion and was first used as a pilot in two interviews to be finalized. After preparing the list of participants' contact details, FGDs and individual interviews were implemented for 40–60 min.

In each session, after warming up, the objectives of the study were explained by the moderator. The participants were notified about confidentiality, and then, signatures were obtained on consent forms. Furthermore, permission to audio record at the time of the interview was sought orally.

The discussion started with a main question related to participants' opinion on the concept of ECD. Consequently, the importance of this period was asked. The concept, milestones, and domains of child development and sources of information for Iranian parents were probed with words as when, how, why, and so on. At the end of each session, a summary of statements was reviewed by the moderator to verify the data.

Data analysis was implemented based on directed content analysis. All of the tapes were transcribed and analyzed manually. After reading the transcripts, meaning units, themes, and subthemes were derived theoretically based on study framework with regard to the concept of early child development, importance, and data sources.

In this study, various aspects of trustworthiness have been adhered. At the end of group discussion, the moderator summarized the interview findings with the participants (respondent validation). Clarifications of detail methods such as data collection and analysis have been done (transferability). Peer checking (dependability) and consistency checks (team consistency) were also performed during the analysis.^[39]

The protocol of this study was approved by the Ethical Committee in University of Social Welfare and Rehabilitation Sciences. The ethical code was "IR.USWR.REC.1395.77."

Results

Twenty-four people participated in 4 FGDs and 4 individual interviews in this study. Among them, 15 mothers of 24–38 years old (mean = 31) participated in 3 FGDs based on their education level (including under diploma and diploma/above diploma), another FGD was done with participation of five fathers of 32–40 years old (mean = 35.6). Four individual interviews were also carried out with four grandparents ranging 55–75 years old (mean = 64.25). Table 1 shows demographic characteristic of participants.

Participants' views were analyzed into 2 main themes, 11 subthemes, and 112 codes. Two main themes included (1) Iranian parents' situation of knowledge about the significance of ECD and (2) parent resources for knowledge acquisition about ECD.

Iranian parents' situation of knowledge about the concept and the importance of early childhood development

The situation of parents' knowledge is summarized in Table 2.

Integrative child development

Participants had limited information about the concept of ECD; they were more familiar with the aspects of child growth (increase in height and weight) than the domain of child development. They just had a little information about gross motor (holding neck, walking, and sitting), fine motor (picking up objects), and speech and language (imitating sounds and speaking). They believed other Iranian parents are not enough familiar with these concepts and do not know what will promote the development of children. One of the mothers believed that "Iranian women do not speak so much about aspects of children development with each other, showing that they do not have much information on this issue." Ultimately, participants expressed ECD using various phrases such as "the talents rising, self-esteem, self-confidence, starting

a new movement, curiosity, communication with other children, and socialization." Two of the participants stated that "when a child holds her/his head, sits, and walks like other children, it will show the good child development." Some mothers were of the opinion that "behaving like other children or doing the same things as they do could be considered as a sign of development."

Participants had different opinions about different aspects of child development as follows.

Motor development

The majority of participants considered behaviors such as holding the head, rolling, sitting, and walking as motor development and only one of the mothers recognized "picking up and taking objects" as the fine motor. Some of them said that "these changes are also important for pediatricians and they ask parents about motor development during their visit." One mother mentioned that "the motor development milestones are shown in the children's vaccination cards using photographs." Obviously, this will help attract the attention of the service providers and parents to the motor development.

Cognitive development

The majority of participants were not familiar with this term. Considering the increase in the education level of the community, parents pay more attention to their children and always seek to increase children's intelligence. They want to develop their child's talent, creativity, and academic success by participating in educational classes related to children. One of the fathers said that "parents like to develop their children's intelligence and mind." Some believed that "children's intelligence should be developed from the age of 3 or 4 years." Another one believed that "children's awareness about the environment means cognitive development." One of the grandmothers said that "mothers do not have much knowledge about how to raise children's intelligence and physical growth of children is more important for them."

Table 1: Description of demographic characterization of participants

Method	ID	Participants	Numbers of Participants	Education		Age of participants (year)		Mean of number of children/grandchild	Mean age of youngest child/grandchild (month)
				Under Diploma	Diploma and above Diploma	Range	Mean		
FGD	FGD1	Mothers	5	5	0	24-38	31	1.25	20.3
	FGD2	Mothers	5	0	5				
	FGD3	Mothers	5	0	5				
	FGD4	Fathers	5	1	4	32-40	35.6		
Individual Interview	IDII1-IDII4	grandparents	4	2	2	55-75	64.25	4.5	21
Total			24	8	16	24-75	37.5		

FGD=Focus group discussions

Table 2: Subthemes and situation of knowledge related to theme 1

Theme 1: Situation of Iranian parents' knowledge about the concept and the importance of ECD	
Subthemes	Situation of knowledge
Integrative child development	Not enough
Motor development	Relatively better
Cognitive development	little
Speech and language development	Relatively better
Social-emotional development	Very little

ECD=Early childhood development

Speech and language development

All participants had a common view about the development of children's speech and language. According to them, "Iranian parents know that young children soon start to coo and babble and they begin to speak at 2 years old." One of the grandfathers stated that "speaking is a significant change in children's lives; more crowded the child's environment is and more talk with him, the sooner he/she will start to speak." From the perspective of participants, some families consider the beginning of a child speaking as a hereditary aspect; therefore, they do not worry about children's late talking and believe that he/she will eventually start talking.

Socialemotional development

Half of the participants considered the children's social relations as a sign of social development. Two of the participants believed that social relations depend on genetics, and some people are inherently social. According to a father, "social relations of a child start to form only from the age of three and not before that." One of the mothers believed that when children are born, they are like a blank slate and are strongly affected by people in various aspects. According to one of the grandfathers, "the presence of children in public and crowded places provides an opportunity for socialization from the very beginning of the birth." One of the fathers supported this idea and said "playing with other children should be considered as a sign of child development" while another mother considered "the role of friends in the adolescence more important than early childhood in social behavior."

Despite the exploration of the research team during interviews and group discussions, participants had no idea on the emotional development of children and were not familiar with this concept. One of the mothers stated with uncertainty "a child's laughing out loud as an expression of emotion." All participants stated that other parents have a very little information on the emotional development of children and its promotion approaches. Three mothers considered the expression of happiness as a kind of child emotion.

The importance of early childhood development

The majority of participants believed that "the development of this period is effective in the child's social and marital

future, educational success, and environmental adaptation." In contrast, a father having an opposite opinion told that "I think the child development up to 3 years is not effective in the child's future and environmental factors play a major role in one's success."

Parents and other caregivers' role in the early childhood development

All participants agreed that the parents and other caregivers such as nurses, grandparents, and kindergarten teachers play an important role in the ECD. A grandmother believed that "as many mothers are working during the day, their children spend too much time with their grandmothers; therefore, they play an important role in the development of those children." One of the fathers was to the opinion that "sometimes grandmothers prevent parents doing the right thing and still insist to transfer the false beliefs of the previous generations to children."

Resources of knowledge acquisition about early childhood development for parents

According to the participants' experiences, sources of information were classified into four main categories: human resources, physical resources, virtual space, and media. A total of 20 sources of knowledge and information were mentioned. From the perspective of most people participating in the study, friends and especially close relatives in Iran provide parents with the most information about children's care. The majority of participants liked to have more interaction with their pediatrician and receive more information from them. In terms of physical resources, half of the participants did not consider books as a good source of knowledge about the development of children because they mostly were not too much interested in reading; reading books is time-consuming; there are a few books on child development with simple writing in Farsi and all the translated books are not reliable; in contrast, they considered booklets more suitable. For acquiring information and knowledge through virtual space, the majority of mothers believed that access to virtual space is easy. In contrast, four of the participants stated that "internet content is repetitive on many websites and also contradictory in some cases." For the media as a source of information, all participants agreed that health-related television programs are attractive and effective for children. One of the mothers said, "radio and television programs are often cross-sectional and cannot be followed; so they do not have much effect." Details of the sources of the knowledge acquisition, including the advantages and limitations of each source, are given in Table 3.

Eventually, participants agree on the inadequacy of parents' knowledge about ECD, they also believe that the level of knowledge of parents about developmental domains is more advance in the motor, speech, and language and reduces in cognitive and socialemotional domains, respectively. They

Table 3: Themes extracted from the experiences of participants about the sources of the knowledge acquisition about the early childhood development for Iranian parents

Sources	Advantages	Limitations	Used phrases
Human resources			
Family	Trusting people's statements	False beliefs	Pediatricians transfer too little knowledge and they mostly focus on growth and the treatment of disease (mother)
Relatives		Pediatricians' limited time during the visit	
Grandmothers	Trust in the pediatrician's advices	Pediatricians' focus on disease and treatment	In health centers, midwives ask about children's feeding, speaking, rolling; and if there is any question, they will guide us but it will not be enough (mother)
Grandfather	High level of education in society	Pediatricians' lack of sufficient knowledge about all aspects of the development of children	
Friends	Parents' interest and enthusiasm to discuss and learn about raising their children	Parents' concern about the situation of children during the visit	Unfortunately, when I ask questions, a pediatrician answers that I just treat physical aspects of the disease and for other questions, you should ask counselors and psychologists. But I prefer to receive such information from pediatrician (mother and father)
Colleagues		Feeling the need to see psychologists only when there are behavioral problems	
Pediatrician		Lack of easy access to all individuals to psychologist (due to the unavailability and high cost of advice)	Grandfathers and grandmothers' recommendations are very effective and their false beliefs may be transferred to parents (grandfather)
Physician			
Nurse			
Opinions and beliefs of people			
Other parents			
Maternal and child health unit staff			
Children adviser			
Consulting psychologist			
Physical resources			
Book	Parents' interest in reading books on nurturing of children	Cognitive, social, and emotional areas and fine motors are not included in vaccination cards (A father)	Mothers are too busy and have no time to read books (mothers)
Booklet		Very low interest in book reading	
Vaccination card (gross motor and speech)	Vaccination card is being issued for all children		Booklets are very well (mothers(I do not know which books can be trusted (mother)
Virtual space			
Websites	Easy access	Low degree of influence of available educational material on the net	I think it is better that the pediatrician introduces the reliable websites to the parents (mother)
Social networks	Attractiveness	Uncertainty about available material on the websites	
Media			
TV	Attractiveness	Noncomprehensive and episodic nature of educational program on TV	Child health programs are not continuous and a particular topic is discussed for a few minutes in each session and the topic is changed in the next session (mother and grandparents)
Radio	Popularity		

are generally of the opinion that the ECD is effectively influence the future living of their children and the relatives and other caregivers have an important impact on the ECD. They realized parents' knowledge sources about ECD as human resources, physical resources, virtual space, and the media; among them, the human resources, especially parents and close relatives, have recognized to have the most influential role. From their point of view, the most important criteria for a source of knowledge were reliability and validity. The majority of participants considered "pediatricians as the most reliable source of information about stimulations and interventions to promote parents' knowledge about ECD;" while due to the many shortages such as time limitation during a visit, lack of attention to nonphysical aspects by pediatricians or sometimes the lack

of their personal information on the issue, pediatricians were reluctant to educate families about ECD. Focusing on diagnosing and treating diseases, they just mostly monitor the growth criteria against the available growth curves.

Discussion

The results of current studies showed that Iranian parents do not have enough knowledge about the concept and importance of promoting ECD and they have different sources for this limited knowledge. Pujadas Botey *et al.*^[40] and Ertem *et al.*^[41] conducted a study in Canada and Turkey and supported the above conclusion regarding the insufficiency of mothers' knowledge in this field. While Huang *et al.* investigated minorities and immigrants in western countries and argued that there are different

patterns of mothers' knowledge about child development.^[24] Mothers who participated in this study were sometimes comparing their children's behaviors and activities with other children and using it as a sign for assessing their child development. Glascoe and MacLean had also revealed in their study that comparison between children is the most common source of information for parents.^[42]

In terms of different fields of development, through this study, it was stated that "Iranian parents have more information about motor development than other domains." In this regard, results of the study conducted by Pujadas Botey *et al.* also showed that parents and other adults have more knowledge about child motor development than other domains in 2013 (40%); in contrast, their knowledge in the field of social, emotional, and cognitive development was <21%.^[40] Beyond the knowledge of parents, Vameghi *et al.* reported that the prevalence of delay in gross motor developmental (1.3%) is less than other domains in Iranian children.^[43,44] From a practical perspective, Hofsten considered motor development as the basis for all domains of child development.^[45] According to the Hofsten, higher level of information and understanding of Iranian parents about motor development than other domains can be considered as a turning point.

According to participants, Iranian parents have limited information on the area of speech and language, they mainly know the time to start talking. Although none of them was aware of babbling and its importance. In this regard, the majority of caregivers (79%) in Turkey also knew that production of sound begins in the early months of life.^[41]

The majority of participants were not familiar with the child cognitive development. In this regard, Morawska, Goodnow, and Sigel suggested through their separate studies that more knowledgeable parents are more concern about their child development, have more interactions with their child, provide a better environment for him/her, and show better parenting behavior, all of which will help improving social and cognitive development of their children.^[46-48]

In the field of social development, the results indicated that Iranian parents have very little knowledge about socioemotional development. According to studies, ECD is considered as one of the most important factors in the socioemotional development of children in the long term and mothers' knowledge is effective in the social development of children through the quality of their behavior with their children.^[24,49] In contrast, mothers who do not have enough knowledge about child development use less effective parenting methods, such as harsh and inconsistent discipline; therefore, a suitable ground for the optimal development of the child would not be created.^[50]

According to the participants, the reasons for the low level of knowledge about child development among

Iranian parents are mostly lack of sufficient attention to different aspects of child development by policymakers and pediatricians, too much engagement of parents on other critical concerns of their lives such as job, housing, and other requirements of everyday life which do not let them allocate enough time for this issue, lack of an appropriate context, and sufficient incentives to encourage parents to raise their level of knowledge, uncertainty about the content of physical resources and virtual space. Likewise, Pujadas Botey *et al.* also argued that the low level of knowledge of Canadian parents is because of lack of access to reliable information about child development and also parents stress.^[40] All participants in this study were of the opinion that the knowledge of parents about child development can be effective in parent-child behavior and child development. Correspondingly, according to the results of other studies, maternal knowledge about child development can act as a predictor of child development.^[24,51]

The majority of participants believed that the ECD is effective in the future of children. Researches have shown that the ECD is a foundation of many challenges for adults, such as mental health problems, obesity, short stature, heart disease, crime, and learning disorders.^[52] The role of the family in child development was another issue that most participants believed in. The results of the study conducted by Zellman *et al.* revealed that African parents consider a vital role for themselves in rearing and supporting children.^[53] Although there is no claim on the direct impact of grandmothers on the child development, Dunifon believed that considering the increasing occupation of mothers, grandfathers, and grandmothers taking more care of their grandchildren; however, this relationship also depends on descent and customs.^[54]

According to the results of the present study, parents' knowledge resources about ECD are categorized into four different types: human resources, physical resources, virtual space, and the media. While in 1991, Glascoe and MacLean identified the sources of information about child development as comparisons, experience/observation, information from professionals, literature/training, and quality environment.^[42] Other studies also addressed the methods of training and improvement of parents' knowledge such as consultation in person, group advice and training, health-care professionals, family, and friends, using the Internet, using a variety of written information (brochures, printed documents from reliable websites, children's books, training books for parents, and child development charts and nomograms), media (videos and Internet), web-based or computer-based interactive programs (CD-ROM), telemedicine, and using the cell phone.^[41,55,56] Regarding the role of the media in health, Alimahdi *et al.* conducted a study in 2015 in Khorasan Razavi province of Iran. The results of their study indicated that people in this province consider the children's health program as one of the most important items to be followed on the media.^[57]

In terms of reliability and validity of educational content, participants believed that Iranian parents rely the most on the advice of pediatricians, while they do not give parents much information about the ECD. McMillin *et al.* noted that increasing the knowledge of parents during the visit by pediatricians can be an important step for reducing maltreatment in children^[58] and information from professionals is one of the sources of parents information about child development.^[42] However, based on the perspective of Pediatrics in India, some barriers of early childhood intervention were insufficient time, lack of treatment choices, and lack of knowledge regarding referral options during the child visit.^[59]

From the perspective of participants in the current research, the reasons why pediatricians do not pay enough attention to the development of children were mainly insufficient time during the visit, lack of knowledge, less importance of child development than growth for physicians and health policy makers. Madden *et al.* believed that parents obtain information through media (TV, newspapers, films, and the Internet) which sometimes might be inconsistent. Therefore, it is expected that physicians suggest reliable websites to them^[60] because the Internet is a major source which is available for consultation and provides information for mothers.^[61] Finally, it is suggested that beliefs, values, and cultural preferences are also considered in increasing parents' knowledge and awareness.^[62] It should be noted that several other factors are also associated with level of knowledge of parents, these factors include mothers' education, ethnicity, number of children, receiving support and help for taking caring of the child, and maternal stress.^[30,34]

Due to some practical limitations, the presence of all participants in FGDs did not become possible; however, this limitation was resolved by individual interviews.

Conclusions

According to participants' attitude and believes, Iranian parents' knowledge about the ECD is not enough. In the meantime, their knowledge about gross motor development and communication (speech and language) is relatively more than their information about the socioemotional development which is very limited. Iranian parents have some information on fine motor and cognitive development. Iranian parents' sources of knowledge about the ECD included human resources, physical resources, virtual space, and the media, from which the most important one was human resources, especially close relatives. In addition, Iranian parents considered pediatrician's advice as the most reliable source of information about ECD. Therefore, more studies on assessing parents' knowledge in community and the practical methods for knowledge promotion in this field is recommended.

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Conflicts of interest

We declare that there is no conflict of interest.

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