

THE EFFECT OF PARENTS 'PERCEPTION, ATTITUDES AND COGNITIVE DEVELOPMENT ON EARLY CHILDHOOD DURING NUTRITION

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ABSTRACT

Human health and development begins with the health and nutrition by one's the mother before birth and continues throughout his/her life, in addition the process between birth and the age of compulsory primary education is called "Pre-School Education Period".

It is possible to mention three main components that affect early childhood development. These are nutrition, environment and education. As early childhood period means 0-8 years of age, early childhood development covers all the physical, mental and social developments in children's early lives in addition to all necessary interventions in nutrition, education, care, health, mental development and social communication that may affect the development.

In this study, which is about supporting early childhood development (ECD), the importance of nutrition in the development of children will be explained and how the knowledge levels, attitudes and beliefs of families affect children's development will be discussed.

The data have been obtained from teachers and parents of 107 children attending preschool educational institutions in Selçuklu, Meram and Yunak districts of Konya during 2014-2015 education year. Moreover, the required permission documents related to the applications that were implemented in the schools have been taken from Konya Provincial Directorate of National Education.

"Personal Information Form", "Cognitive Skills Assessment Scale" (filled by the preschool teacher), "Assessment Scale of Parental Nutrition Information" and "Scale of Parents' Attitudes and Behaviors on Children" (filled by the mothers of children aged 4-6 attending preschool institutions) have been used in this study.

Finally, SPSS 15 packet program has been used in the statistical analysis of this study providing with frequency and descriptive statistics, Oneway analysis of variance (ANOVA), and two independent sample T-tests.

Key words: Nutrition knowledge of families, nutrition, early childhood nutrition, cognitive development

ÖZET

İnsan sağlığı ve gelişimi doğumdan önce annenin sağlığı ve beslenmesi ile başlar, yaşam boyunca devam eder. Bu sürecin doğumdan başlayarak, zorunlu eğitim çağına kadar olan bölümüne "Okul Öncesi Eğitim Dönemi" denir.

Erken çocukluk gelişimini etkileyen üç ana bileşenden söz etmek mümkündür. Bunlar beslenme, çevre ve eğitimidir. Erken çocukluk dönemi 0-8 yaşlarını, erken çocukluk gelişimi ise çocukların hayatının erken dönemlerindeki fiziksel, mental ve sosyal gelişimlerini kapsamakta ve bu gelişimi etkileyebilecek beslenme, eğitim, bakım, sağlık, zihinsel gelişim ve çocukların sosyal iletişimleri için gerekli tüm girişimleri içermektedir

Erken çocukluk gelişiminin (EÇG) desteklenmesi konusundaki bu çalışmada çocukların gelişiminde beslenmenin önemi açıklanıp ailelerin beslenme bilgisinin, tutum ve inanışlarının gelişim üzerine etkisi anlatılacaktır.

Veriler 2014–2015 eğitim yılında Konya ili Selçuklu, Meram, Yunak ilçelerinde okul öncesi eğitim kurumlarına devam eden 107 çocuğun öğretmen ve velilerinden elde edilmiştir. Okullarda yapılan uygulamalarla ilgili gerekli izin belgeleri Konya İl Milli Eğitim Müdürlüğü'nden alınmıştır.

Çalışmada “Kişisel Bilgi Formu”, “*Bilişsel Becerileri Değerlendirme Ölçeği*” (Okul öncesi öğretmeni tarafından doldurulan), “*Ebeveynlerin Beslenme Bilgisi Değerlendirme Ölçeği*” ve “*Ebeveynlerin Çocukların Üzerinde Tutum ve Davranışları Ölçeği*” (Okul öncesi eğitim kurumlarına devam eden 4–6 yaş çocuklarının anneleri tarafından doldurulan) ölçekler kullanılmıştır.

Bu çalışmanın istatistikî analizleri yapılırken SPSS 15 paket programları kullanılmıştır. Araştırmada frekans ve betimleyici istatistikler, tek yönlü varyans analizi (ANOVA), ve bağımsız iki örneklem **t** testi kullanılmıştır.

Anahtar Kelimeler: Ailenin beslenme bilgi düzeyi, beslenme, erken çocukluk beslenmesi, bilişsel gelişim

1. INTRODUCTION

Adequate, balanced and regular nutrition from birth to reach a healthy and civilized society level is of great importance for a child to develop at optimum level (Zembar et al.,2015: 21-29). Although nutrition is very important in every age group, some periods are called critical periods. These periods include intrauterine period, the first year of life that is fast growing as well as the period of capturing growth, pre-school period and adolescence (Kalkanoğlu-Sivri, 2010). Experts agree that good nutrition facilitates the development of children's cognitive and behavioral skills and they need to be well fed to reach the full potential of learning (Ruel, vd.,2013:536-551). At this point, the level of awareness of the nutrition of the adults surrounding the child in pre-school age is also an important factor (Ünüsân, 2005).

Proper, balanced and healthy eating of the people, proper eating habits; reduction of the risk of diseases such as obesity, cardiovascular diseases, diabetes and cancer in the society, prevention of protein-energy malnutrition and vitamin-mineral deficiency are all the protective factors each of which plays a role in minimizing nutritional health problems (Gündoğdu, 2009).

Nutrition can be conscious or unconscious. Habits, traditions, food supply, appetite and satiety are important factors in unconscious diets, but they can be controlled considerably by having conscious diets thanks to dietetics. It is possible for individuals to be nourished in the most suitable, appropriate, balanced and economical ways regarding the existing conditions (Ünüsân, 2002).

Development And Nutrition Characteristics In Early Childhood

Assessment of the child's development and developmental retardation, if any, and early childhood emotional problems, competencies and inadequacies can be taken into consideration in order to reduce the need for special education (Kartal, 2007:234-248).

On the other hand, early childhood education has a separate prescription, especially for children at the lower socioeconomic levels to reduce the effects of adverse environmental conditions during the first years of life, to raise awareness of families about child development and education, and to increase the future academic achievement of children. Disadvantages of improper environments (inadequate care, unhealthy environmental conditions, and economic difficulties) that strengthen social inequalities during early ages are minimized and this environment is made more favorable to the development of the child by providing education for the child and his / her family during early childhood (Kartal, 2007).

The healthy growth and development of children are influenced by many factors such as nutrition, heredity and environmental conditions. Family's cultural background and socioeconomic opportunities are among the strongest determinants of a child's nutritional status (Öncü et al., 2011).

Our country has been suffering from the health problems which are also seen both in developed and developing countries. The nutritional status of our population is changeable according to regions, seasons, socioeconomic levels and rural-urban distinction. One of the most important factors causing inadequate and unbalanced nutrition is lack of knowledge. If people have enough knowledge about nutrition, they may change their nutritional status and habits positively (Şanlıer, 2009).

Adults who are supposed to be the only examples for children are not necessarily their parents. Teachers are the ones who are responsible for children in educational institutions and who have the most important influence on children. In order to gain the demanded eating habits, it should be considered giving importance to educational institutions as well as at home environment, and consistency should be ensured between home and school, between teachers and parents. From this point of view, it is important that the teachers who have a very important place in the life of the children, are equipped with the correct knowledge about healthy nutrition (Zembat et al., 2015).

As a result; it is seen that the habits that will be formed in healthy and balanced nutrition are shaped in childhood years and these habits continue within later ages. It should not be forgotten that children are not very active in food choices whereas parents and educational institutions are the main authorities in this regard. In order for children to gain healthy eating habits, adults in their lives must also be knowledgeable and conscious about nutrition. Referrals by adults, the variety of foods that adults offer to children, shape a child's diet preferences and habits in the long term (Zembat et al., 2015).

2. METHOD

2.1. The Research Model

This scientific study, which was done by means of 'the relational screening model', aims to examine how cognitive development of children is affected by their parents' perceptions, attitudes and behaviors in nutritional terms.

2.2. Location and Time of the Conducted Study

After all the necessary permissions and Ethics Committee Approval were taken, the research was done in the schools of Selçuklu, Meram, Yunak districts including Ertuğrul Gazi Secondary School, Zeki Altındağ Primary School, Meram Gödene Toki Şehit Yunus Berber Primary School, Yunak Hacı Tekin Primary School and Yunak Fatih Primary School. The research started in January, 2015 and it was completed in June, 2015.

2.3. The Universe of Research and the Sample Group

The universe of study contains parents and teachers in the relevant pre-school institutions which are located in Konya and affiliated to the Ministry of National Education. The required scales were applied in close cooperation with parents and the teachers of the pre-school institutions during 2014-2015 education period.

In order that the sample group could be represented the universe, they were chosen from different socio-economic levels and different regions. In accordance with this purpose, the schools were selected via the method of basic random sampling.

2.4. Data Collection Tools

The scales, which were developed in parallel with the related literature by the researcher, were tested and it was revealed that they were valid and reliable. The scales are called as ¹the evaluation scale on nutritional information for parents, ²the attitudinal and behavioral scale for parents about children nutrition and ³the evaluation scale on cognitive skills.

2.4.1. The evaluation scale on nutritional information for parents: This scale includes a personal information form (9 close-ended questions) and a questionnaire form evaluating parents' nutritional information levels (9 close-ended questions). These forms were filled by the mothers whose children had been attending pre-school institutions at that time.

2.4.2. The attitudinal and behavioral scale for parents about children nutrition: It contains a form filled by the mothers whose children were attending pre-school institutions at that time. (16 questions on five point likert scale)

2.4.3. The Evaluation Scale on Cognitive Skills: It includes a form filled by the pre-school teachers according to children's cognitive capacities. (20 questions with on five point Likert scale)

2.5. Data Analysis

SPSS 15 software program was used in this study in order to perform statistical analyses such as frequencies, descriptive statistics, one-way analysis of variance (ANOVA) and two independent sample T-tests.

2.6. The limitations of research

1. This research is limited to the teachers and the parents whose 4-6 year-old children or students were attending pre-school institutions during 2014-2015 education year.
2. This research is limited to some certain pre-school institutions in Selçuklu, Meram and Yunak districts of Konya.
3. Children's cognitive skills have been categorized according to only their teachers' statements.
4. The evaluation scale on cognitive skills is limited to twenty questions.

3. RESULTS

Table 1: Demographic Characteristics of Participants

DEMOGRAPHIC CHARACTERISTICS	N	%
THE GENDER OF CHILD		
Male	41	38,3
Female	66	61,7
THE CHILD'S AGE		
3	0	0
4	4	3,7
5	26	24,3
6	77	72,0
THE MOTHER'S AGE		

20-24	5	4,7
25-29	33	30,8
30-34	46	43,0
Over 35	23	21,5
THE FATHER'S AGE		
20-24	0	0
25-29	18	16,8
30-34	47	43,9
Over 35	42	39,3
RESIDENTIAL AREA		
Village	1	,9
Small town	2	1,9
Big town	42	39,3
City center	62	57,9
THE NUMBER OF SIBLINGS		
1	64	59,8
2	26	24,3
3	15	14,0
Over 4	2	1,9
THE ATTENDANCE PERIOD OF THE CHILD AT THE PRE-SCHOOL INSTITUTION		
1 YEAR	87	81,3
2 YEARS	17	15,9
OVER 3 YEARS	3	2,8
AVERAGE ECONOMICAL LEVEL		
500 TL and below	3	2,8
501-1000 TL	36	33,6
1001-1500 TL	32	29,9
1501-2000 TL	15	14,0
2001-2500 TL	11	10,3
2501 TL and over	10	9,3
THE MOTHER'S EDUCATION LEVEL		
Literate	2	1,9
Primary School	53	49,5
Secondary School	18	16,8
High School	22	20,6
University	11	10,3
Postgraduate	1	,9
THE FATHER'S EDUCATION LEVEL		
Literate	0	0
Primary School	30	28,0
Secondary School	26	24,3
High School	31	29,0
University	19	17,8
Postgraduate	1	,9

There was no statistically significant difference between the Evaluation Scale on Cognitive Skills scores in terms of gender ($p>0,05$). There was no statistically significant difference between The attitudinal and behavioral scale for parents about children nutrition scores in terms of gender ($p>0,05$).

There was no statistically significant difference between the Evaluation Scale on Cognitive Skills scores in terms of children's ages ($p>0,05$). In addition here was no statistically significant difference between The attitudinal and behavioral scale for parents about children nutrition scores in terms of children's ages ($p>0,05$).

There was no statistically significant difference between the Evaluation Scale on Cognitive Skills scores in terms of mother's ages ($p>0,05$). There was no statistically significant difference between The attitudinal and behavioral scale for parents about children nutrition scores in terms of mother's ages ($p>0,05$).

There was no statistically significant difference between the Evaluation Scale on Cognitive Skills scores in terms of residential area ($p>0,05$). Statistically significant difference was found to be between The attitudinal and behavioral scale for parents about children nutrition scores and residential areas ($p<0,05$).

The scale scores of the individuals regarding living in the city centers and big towns were found to be higher than those residing in villages and small towns.

There was a significant difference between the duration of the child's pre-school years and the Evaluation Scale on Cognitive Skills scores ($p<0,01$). It was determined that the scores of the children who attended to the pre-school institution for at least 2 years are higher than those who have had for 1 year. There was a significant difference between the duration of the child's pre-school stay and the attitudinal and behavioral scale for parents about children nutrition scores ($p<0,05$). It was found that the duration of the pre-school institution is higher than that of the individuals who have had for 1 and 2 years, in comparison with those who have had for 3 years.

There was no statistically significant difference between the Evaluation Scale on Cognitive Skills scores in terms of economic level of the family ($p>0,05$). There was no statistically significant difference between the attitudinal and behavioral scale for parents about children nutrition scores in terms of economic level of the family ($p>0,05$).

There was a significant difference between the education level of the mothers and the Evaluation Scale on Cognitive Skills scores ($p<0,05$). The scores of the individuals who were the graduates of middle schools or higher levels were higher than those who were literate and primary school. There was no statistically significant difference between the attitudinal and behavioral scale for parents about children nutrition scores in terms of education level of the mothers ($p>0,05$).

Individuals who stated that they were feeding their children with 1, 2 and 3 portions of vegetables per day were found to have lower scores on the attitudinal and behavioral scale for parents about children nutrition than those who said they did not feed any vegetables on a daily basis ($p<0,01$).

The Evaluation Scale on Cognitive Skills and the attitudinal and behavioral scale for parents about children nutrition were examined by Pearson correlation test, but the relationship was found to be insignificant ($p>0,05$). That is to say that is no significant relationship between the two scales.

4. DISCUSSION

Eating habits that are developed in childhood are also continued in the nutritional choices when going through adulthood. Therefore, pre-school nutrition education can be a basis for healthy eating habits throughout life.

In 2003, Mermer implemented some questionnaires, observation forms and anthropometric measures to conduct a study called "the family role" including children in 3-6 ages. Then, it was emphasized that family activities were effective on children's nutritional attitudes and behaviors significantly (Zembar et al., 2015).

Davison, Jurkowski, Kranz and Lawson (2013) developed a community-based research by focusing especially on family involvement in their study. A family-centered program to prevent childhood obesity was designed, and as a result of the scientific intervention, many significant improvements were observed in children regarding their obesity, mild physical activities, time spent in front of TV and the diet (intake of energy and macro nutrients). It has been reported that parents have more confidence in providing healthy food with their children after the program. The research shows that children's daily energy intake is affected positively if parents support healthy activities, prepare healthy food effectively and supply fruit and vegetables frequently (Zembar et al., 2015). The research has revealed that the more positive the level of knowledge about the family, the more positive effects the children will have on the healthy nutrition. For this reason, it is of great importance for parents to be knowledgeable and conscious about healthy and balanced nutrition, to offer correct and healthy food to their children and to enable children so as to gain proper nutrition habits (Zembar et al., 2015).

5. CONCLUSION

Nutrition is the most significant factor affecting human health. Because children cannot choose food including high nutritional values without help, they need to be informed about healthy food and nutrition. In order to give this education to children in early childhood period, parents need to be educated about this issue at first.

Early childhood education, or widespread discourse constitutes to the first step of education, and preschool education is a process that supports the development of children's mental, physical, social and emotional aspects, providing with the rich stimulating environment opportunities appropriate for the development levels and individual characteristics of children. It covers the years from childbirth to primary school day, which is a process of education that takes part in the mainstream of teaching guiding them in the best way towards the cultural values of society by preparing them for primary education.

Effective and sustainable adequate and balanced nutrition education will lead to the prevention of problems and practices threatening the health of people of all ages, thanks to changing the bad habits and behaviors, and the revision of the acquired knowledge.

Parents need to have accurate and adequate knowledge about healthy nutrition so that they can provide with the correct eating habits for their children.

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