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ARAŞTIRMA / RESEARCH

Opinions of parents with children between 0 and 2 ages about vaccinations

0-2 yaş aralığında çocuğu olan ebeveynlerin aşılar hakkındaki düşünceleri

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Abstract

Purpose: This study was carried out to evaluate the parent's thoughts about vaccines who have children at the age of 0-2 years.

Materials and Methods: This study was carried out between the dates 1st January-31st March 2018, in a neonatal intensive care unit of a t and Research Hospital Pediatrician Service, with volunteering parents (N=100) of 0-2 aged children who were being treated for various reasons.

Results: In this study, there are mothers and 61% of them are high school graduates, 56% are housewives and 95% are without social security. Out of parents; 98% of them said that vaccines are required, 65% of them said that vaccine protects from the disease, 80% of them said that they had learned about vaccines in Family Health Center, 16% of them due to some vaccines contain mercury did not want to get vaccinated and 54% of them said that they had not joined the eradication program.

Conclusion: Mothers were not informed enough about the contents of the vaccines and that they were informed by the primary health care personnel of the vaccines.

Key words:. Vaccines, information, parent, immunization

Öz

Amaç: Bu çalışma 0-2 yaş çocuğu olan ebeveynlerin aşılar hakkındaki düşüncelerini değerlendirmek amacıyla yapıldı.

Gereç ve Yöntem: Bu çalışma 1 Ocak- 31 Mart 2018 tarihleri arasında, bir Eğitim ve Araştırma Hastanesi'nin çocuk hastalıkları servisi ve yeni doğan yoğun bakım ünitesinde, çeşitli nedenlerle tedavi gören 0-2 yaş çocukların gönüllü olarak çalışmayı kabul eden ebeveynleri (N=100) ile yapıldı.

Bulgular: Çalışmada, %61'i lise mezunu, %56'sı ev hanımı, %95'inin sosyal güvencesi bulunmayan anneler bulunmaktadır. Ebeveynlerin; %98'i aşıların gerekli olduğunu, %65'i aşıların hastalıktan koruduğunu, %80'i aşıları Aile Sağlığı Merkezi'nde öğrendiklerini, %16'sı bazı aşıların cıva içermesi nedeniyle aşı yaptırmak istemediklerini ve %54'ü eradikasyon programına katılmadıklarını ifade etmişlerdir.

Sonuç: Annelerin, aşıların içeriği konusunda yeterli bilgi sahibi olmadıkları, aşılar konusunda en çok birinci basamak aile sağlığı elemanı tarafından bilgilendirildikleri tespit edilmiştir.

Anahtar kelimeler: Aşılar, bilgi, ebeveyn, bağışıklama

INTRODUCTION

Vaccines, are suspensions which are prepared by killed or reduced virulence of the microorganisms (bacteria or viruses) directly itself or by certain parts of microorganisms (toxins, cell wall polysaccharides etc.) The application of vaccines within a specific plan is called vaccination[1]. Vaccination is one of the low-cost public health measures that reduce morbidity and mortality of children against infectious diseases[2].

In the fight with infectious diseases, vaccination is one of the cheapest, safest, most effective and best medical practices. Because vaccination does not only protect the person vaccinated but also it provides a means to take that disease under control[3,4].

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In developing countries in the world, 1/5 of infant deaths are preventable diseases. To reduce preventable diseases, in 1974 the World Health Organization (WHO) with "Extended Immunization Program," (Expanded Programme on Immunization: EPI) is working for prevention of Pertussis, Diphtheria, Tetanus, Measles, Rubella, Mumps, Tuberculosis, Poliomyelit and Hepatitis-B with Hemophilus İnfluenza Type B related diseases and prevention of infant and child deaths and disability resulting from these diseases. Since 1985 the national vaccination campaigns have been launched[5,6].

In our country, the vaccination service is made by the Ministry of Health and it's free. Vaccines that are not in the routine vaccination schedule are optional and provided by families[6]. With the onset of vaccination, anti-vaccine also began**.** The suspicious approaches to vaccines affect parents in particular and they think about whether or not to take vaccines[7]. Parents' vital awareness, family-related factors, social, cultural, economic factors, low level of education, accessibility, acceptability, and usability of vaccination are preventing factors for vaccination[8].

The cooperation between parents and health personnel is of great importance for the scheduled implementation of vaccines that have a major role in primary health care services for health protection and development. This study was planned to evaluate parents' opinions about vaccines who have children at the age of 0-2.

MATERIALS AND METHODS

Study design and sample

The study was carried out between January 1 and March 31, 2018, in a descriptive study to determine the opinions of parents about vaccines for children aged 0-2 who were treated for various reasons in a pediatric and neonatal intensive care unit of a Training and Research Hospital. The sample of the study was formed by volunteering parents (N=100) who had children aged 0-2 at the specific services receiving treatment. The total number of patients hospitalized in the ward was 114 between the specified dates. 14 parents did not want to participate in the study. The fact that the parents' had children aged 0-2 has created the limits of the study.

In order to conduct the research, the approval of the Provincial Health Directorate and the ethics committee were obtained from the Scientific Research Ethics Committee of Karadeniz Technical University (protocol no: 2018/205). Prior to the application, verbal and written consent was obtained from the parents after informing them about the purpose of the study. This study was conducted in accordance with the principles of the Declaration of Helsinki.

Measures

The data of the study; Personal Information Form consisting of 12 questions about the age, profession, educational status, social security of the parents, mother birth count which was prepared by the researcher based on the literature, using the Parents' Knowledge Level Form About Vaccines Form, which consists of 28 questions about the definition of the vaccine, the substance contained in the vaccine, the information about the vaccines, the vaccination schedule and paid vaccines, with the survey method consisting of multiple-choice and open-ended questions.

The dependent variables of the study were determined according to parents' level of knowledge about childhood vaccines and independent variables were determined based on their ages, occupations, education levels, father's age, occupations, education level, family incomes, and social security status, and paid vaccination status.

Statistical analysis

In the analysis of the data, descriptive properties were given as number and percentage. Qualitative data comparison was evaluated with the Chi-square test. Statistical analysis SPSS (Statistical Package for Social Science for Windows) was made the package program 23.0. The results were evaluated with a confidence interval of 95% and a significance level of $p < 0.05$.

RESULTS

56% of mothers (N=100) participating in the study are between the age of 25-34, 56% of them are housewives,61% of them are at high school education level, 92% of them have no social security. Participation of the fathers are 35% in the study (Table 1).

Table 1. Sociodemographic characteristics distribution of families

Demographic Information	Number (n)	Percentage (%)
Age of Mother		
15-24	10	10.0
25-34	56	56.0
≥35	34	34.0
Profession of Mother		
Worker	12	12.0
State Officer	32	32.0
Housewife	56	56.0
Educational Status of the Mother		
Primary & Secondary	39	39.0
High School & Over	61	61.0
Age of Father		
15-24	2	2.0
25-34	44	440
≥35	54	54.0
Profession of Father		
Worker	20	20.0
State Officer	45	45.0
Free	35	35.0
Educational Status of the Father		
Primary&Secondary	23	23.0
High School & Over	77	77.0
Social Insurance		
Yes	92	92.0
No	8	8.0

98% of the parents stated the vaccines were necessary to protect against diseases, 47% stated those were vaccines for immunization, 46% did not know the contents of the vaccine, 99% stated the vaccines after childhood injected are unnecessary, 41% stated they received information about vaccines from family health personnel, 91% stated they received information about vaccination when they went for vaccination, 82% stated they know about hepatitis vaccination the most (with the statement of Yellowness), 67% stated that newborns should be given birth at birth and 83% stated that the most common complaint after vaccination was fever (Table 2). All of the parents who participated in our study stated they knew about the state provided free routine immunization services and that vaccines were involved in routine vaccination (Figure 1). 55% of parents stated that they knew about paid vaccines and 32% stated that they knew about the meningococcal vaccine the most. It was determined that 45% out of 98% of the parents who did not receive paid vaccination had no knowledge of the paid vaccines, 51% believed that paid vaccination is unnecessary, 54% did not participate in the eradicated vaccination campaigns, and 16% were in two minds because of the vaccines includes mercury (Table 3).When the socio-demographic characteristics of mothers and some characteristics related to vaccination are compared, a statistically significant difference was found between: by whom the vaccination is done and age group, the need for vaccination and education, where it is done and the knowledge of the schedule of vaccination, the necessity of vaccination and income status and paid vaccination, the number of living children and the place to be vaccinated (Table 4).

Table 2. The analysis about vaccination status information

	Number (n)	Percentage (%)
The Necessity of the Vaccine		
Yes	98	98.0
No	2	2.0
What is Vaccine? Can you identify it?		
It's made to protect from external factors.		
To help baby for adaptation to environmental conditions	26	26.0
Healthy Life	11	11.0
Immune needle for the win	47	47.0
Do not know	16	16.0
Materials Found in Vaccine		
Microbe	21	21.0
Do not know	46	46.0
Material for the Preserve	10	10.0
Antigen, antibody	10	10.0
Virus	12	12.0
Quick Silver, Aluminium	1	1.0
The Reasons for The Necessity of the Vaccine		
Protect against infectious diseases	65	65.0
For healthy growth and development	16	16.0
Do not know	13	13.0
To help child for facing infections easy	6	6.0
The 'Place' which information has been learned and the 'Person'		
Doctor	31	31.0
TV, Radio, News Paper	5	5.0
İnternet	15	15.0
No Information	49	49.0
Do you know the Vaccine Schedule?		
Yes	57	57.0
No	43	43.0
Do you know when the vaccine made for the new born baby?		
Do not know	17	17.0
During born	67	67.0
1 week	9	9.0
2 week	1	1.0
1 month	6	6.0
Do you know where you can have made vaccine for your baby?		
Do not know	2	2.0
Family Health Center	71	71.0
Main Child Health Center	3	3.0
Hospital	7	7.0
All	17	17.0
Do you know who make vaccine to your child?		
Doctor	5	5.0
Nurse	51	51.0
Obstetrician	15	15.0
All	29	29.0
When you went to get a vaccine, did you get information about the vaccine?		
Yes		
No	91	91.0
	9	9.0
Do you know what can be seen after vaccine process?		
High Fever	83	83.0
Pain	40	40.0

Skin Rash	52	52.0
Swelling	39	39.0
Perturbation	55	55.0
Rash in the Body	17	17.0

Table 3. Mother's information distributions about paid vaccine

	Number (n)	Percentage (%)
Do you know anything about paid vaccine?		
Yes	55	55.0
No	45	45.0
Known paid Vaccine		
Meningococcus	32	32.0
Rotavirus Vaccines	16	16.0
İnfluenza (Flue) Vaccine	54	54.0
Do you know how to make paid vaccine for your child?		
Yes	2	2
No	98	98
Why not to do paid vaccine for your child?		
No Information	45	45.0
Do not have enough income	2	2.0
Unneccessary	51	51.0
Do you know why you need to make vaccine for your child for the reason of migration?		
Yes	2	2.0
No	54	54.0
No Information	44	44.0
To not make vaccine by the act of media		
Yes	16	16.0
No	84	84.0

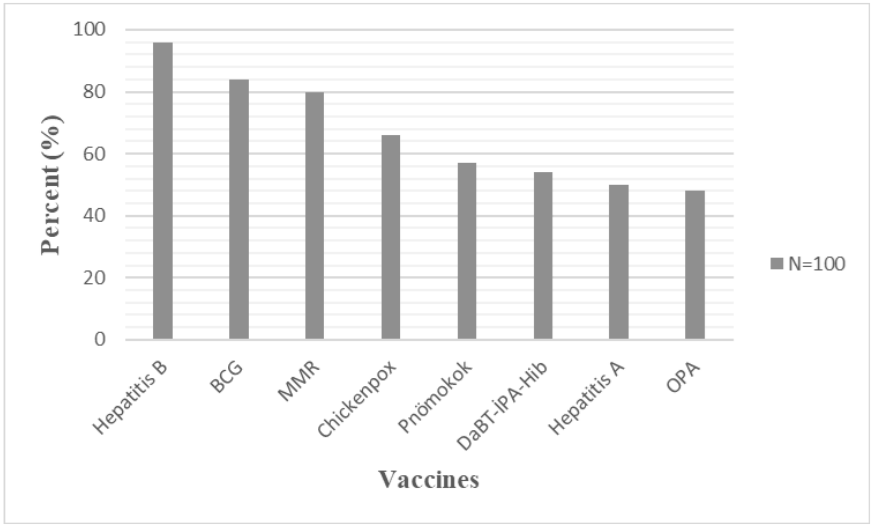

Figure 1. Know the routine vaccinations of childhood mothers.

Table 4. Analysing the vaccine status relating to demographic characteristics of mothers

Independent Variables	N (%)	Vaccine is Necessary?	Where vaccination carried out?	Who makes vaccine?	Know Vaccination Schedule2	Make paid rebel
Age Group						
15-24	10(%10.0)	0.146	0.444	0.022*	0.069	0.634
≥25	90 (%90.0)					
Educational Status						
Primary &Secondary	39 (%39.0)	0.000*	0.022*	0.43	0.003	0.253
High School & Over	61 (%61,0)					
Profession						
Working	44 (%44.0)	0.568	0.937	0.652	0.235	0.863
Housewife	56 (%56.0)					
Income Statue						
<Minimum age	34 (%34.0)	0.000*	0.412	0.334	0.307	0.001*
≥Minimum age	66 (%66.0)					
Alive number of Children						
1	38 (%38.0)	0.605	0.032*	0.647	0.025*	0.724
≥2	62 (%62.0)					

X^2, Chi square test, *significance $p<0.05$

DISCUSSION

In terms of the protection of human health, vaccine applications are important[9]. Vaccination is a proven tool for prevention and elimination of infectious diseases[10]. Vaccination program starts at the hospital where the baby was born and then the first step usually continues according to the national schedule of vaccination on family doctors.

It is possible to come across to various studies on parents' knowledge level about vaccination in the literature[11]. Thanks to this study, it was determined that the majority of parents think that vaccination is necessary. In our country, on the studies of National Immunization, it was stated that vaccine-related education is essential[12]. From this point of view, it is important that the parents in the study area are aware of the necessity of vaccination for national immunization studies to show that the necessary goal has been achieved[13]. Those participants who think that vaccines are necessarily defined the vaccine as a needle/injection to get to develop immunity. In another study, the parents stated that the vaccine is immunizing, increases the resistance of children against diseases and protects against diseases[12].

In this study, although 98% of parents stated that the vaccine is necessary, they did not know what agents does a vaccine contains. 65% of parents stated that vaccines protect their children against infectious diseases and that they are effective on children's growth and development and on their infections. In another study conducted on the determinants of timely vaccination among young children, mothers stating that vaccination protects their children from the disease supports the study being conducted[14].

Parents stated that they had got information about vaccines from the nurse (Family health personnel) when they had gone to FHC (Family Health Center) mostly when they were pregnant. As a result of the study, Topaloglu and his colleagues conducted to determine the thoughts of the parents on the influenza vaccine who applied for upper respiratory tract infections complaints, it was determined that the doctors were the most commonly used source of information on vaccines[15]. The first step is supported by the results of these studies where the personnel's obligations are met on health protection and informing the families[16].

In this study, it is a good result that the majority of the parents know the vaccination schedule, the first vaccination of a newborn baby at birth and that this vaccine is the hepatitis B vaccine. In a study by

Kassahun et al. 73% of the mothers stated that when the first vaccination should be performed, 27% stated that they did not know[17]. Parents' not knowing the vaccination schedule can be thought to be due to the implementation of national vaccination calendars and changes over time.

This study, which determines that information was given to families on the day of vaccination, shows the effectiveness of primary health care. Providing collective education and individual counseling services on public health issues is one of the main tasks of primary health care institutions. In vaccination training, mentioning the positive and negative effects of the vaccines in detail enables parents to become determined about being vaccinated and also increases the confidence of the health personnel[18].

In this study, the majority of the parents see the responsible person as family health personnel in vaccination practice. Immunization services, which are the most important preventive health services in our country, are provided free of charge by the government for years. Within the framework of the socialized health organization, family health personnel in Family health centers are primarily responsible for immunization services. Canbaz et al. In a study to compare the immunization information given by mothers who have children between 2-12 months of age and the consistency of records related to immunization in health centers, they found that health centers were the primary institution for child immunization for mothers to apply the most frequently[19].

In the study conducted to evaluate the determinants of vaccine range in Nigeria, it was observed that for mothers, the health centers and village clinics were the most frequently applied places (82.2%) to vaccinate their children[20]. Uzuner et al, in a similar study with mothers who newly gave birth to their babies, stated that the institution for mothers to take their babies for vaccinations were health centers[21]. The conclusion of the necessity to consider the effectiveness of the primary health care service was repeated with this study[22].

Today, vaccines are the safest and most effective means used medically. However, unwanted side effects can also be seen after vaccination[23]. In this study, the majority of parents used the statement "fever" as a side effect of vaccines. In the study conducted by Göksugür (2006), it was observed that 63.3% of the mothers stated that there were no side effects of the vaccines, and those who stated that they had side effects indicated fever with 75.7% as a side effect[12]. Training on the side effects of vaccines is very important in early precaution[13].

The study has determined that Hepatitis B, Tuberculosis Vaccine and Measles, Measles, Mumps (RCC) vaccines are respectively the most known vaccines among parents. In Uzuner et al's study to determine the level of knowledge about childhood vaccines of mothers who have recently delivered, it was observed that the most known vaccines among mothers were measles, BCG and Tetanus vaccines[21]. This study which shows that mothers do not know wholly about other vaccines on the vaccination schedule with these results is similar to other studies conducted in Turkey[19].

The results of this study show that parents are aware of paid vaccines. In the study of Göksügür which was conducted on mothers of patients in the hospital, it was found that 70% of mothers were aware of paid vaccines[12]. Govani et al. In the study conducted in rural Ahmedabad to determine the immunization status of 12-23 months old children, it was found that 2% of people who had known about only route vaccine among paid vaccines[24]. Regular provision of information on paid vaccinations in primary health care will help parents to raise awareness of paid vaccinations.

In the study, only one person among parents stated that their child had an influenza vaccine. Influenza type b (Hib) has entered the routine vaccination scheme in most of the developed countries and reduction of up to 97% in invasive Hib infections was detected[25].

In this study, the parents who have children that did not get paid vaccine are the majority. In addition to this, it was seen that there were parents who stated that they do not get vaccinated because the paid vaccinations are not necessary. However, the fact that this study found a significant difference between income status and making a paid vaccination suggests that economically better families have more specific vaccinations. In her study, İncili stated that mothers do not get paid vaccines because they do now have enough knowledge about them[26]. In Şentürk et al's study, he showed that at least one of the paid vaccinations, other than the National Vaccination Program, was applied to 74.21% of children if health workers had

adequate communication with mothers and could allocate enough time for maternal education[27].

In the study, it was observed that the education level of the mother had a significant effect on vaccination of children. Parallel to this finding, in the study conducted by Yiğitalp et al in Diyarbakır province to research for the Causes of Absence of Vaccination of 0-12 months of children, it was found out that children who have full vaccines have mothers on high levels of education[28].

Parents who participated in this study stated that they did not want to have their babies vaccinated because the vaccine contains mercury. As a result of groundless news appearing in the media from time to time, the confidence against the vaccination in the society decreases and it can affect the vaccination rates. In order to prevent this, society should be informed constantly and regularly through mutual training, leaflets, and articles in the media.

Parents not having enough knowledge of the contents of vaccines, routine vaccines, special vaccines, names of vaccines, what vaccines are made for; that they believe that vaccines are necessary, that they get informed by family health personnel the most about vaccines and that they have fears about getting vaccinated because vaccines contain mercury have been determined by this study. Our country, which is trying to reach the vaccination targets rapidly, will reach the desired level in child vaccination with regular awareness programs to increase the mother's knowledge about childhood vaccines.

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REFERENCES

1. Babl FL, Lewena S, Brown L. Vaccination related advers events. Pediatr Emerg Care. 2006;22:514- 9.
2. Maman K, Zöllner Y, Greco D, Duru G, Sendyona S, Remy V. The value of childhood combination vaccines from belief to evidence. Hum Vaccin Immunother. 2015;11:2132-41.
3. Chiodini J. Vaccine administration. Nurs Stand. 2000;14:38–42.
4. Dubé E, Laberge C, Guay M, Bramadat P, Roy R, Bettinger JA. Vaccine hesitancy: an overview. Hum Vaccin Immunother. 2013;9:1763-73.
5. John TJ, Plotkin SA, Orenstein WA. Building on the success of the expanded programme on ımmunization: enhancing the focus on disease prevention and control. Vaccine. 2011;29:8835-7.
6. Özgür SK, Beyazova U, Kemaloğolu YK, Maral I, Şahin F, Camurdan AD et al. Effectiveness of inactivated influenza vaccine for prevention of otitismedia in children. Pediatr Infect Dis J. 2006;25:401-4.
7. Kimmel SR. Vaccine adverse events: separating myth from reality. Am Fam Physician. 2002;66:2113-21.
8. WHO/IVB. Immunization Coverage Cluster Survey-Reference Manual. Basic Principles of Sampling for Surveys. Geneva, World Health Organization, 2005.
9. Kurosky SK, Davis KL, Krishnarajah G. Effect of combination vaccines on completion and compliance of childhood vaccinations in the United States. Hum Vaccin Immunother. 2017;13:2494–2502.
10. Etana B, Deressa W. Factors associated with complete ımmunization coverage in children aged 12-23 months in ambo woreda, central Ethiopia. BMC Public Health. 2012;12:566.
11. Forbes TA, McMinn A, Crawford N, Leask J, Danchin M. Vaccination uptake by vaccine-hesitant parents attending a specialist immunization clinic in Australia. Hum Vaccin Immunother. 2015;11:2895-903.
12. Göksügür SB. Mothers' knowledge of vaccination, factors affecting vaccination (unpublished specialization thesis). İstanbul, Ministry of Health Haydarpaşa Numune Training and Research Hospital, Clinic of Child Health and Diseases, 2006.
13. Sutter RW, Prevots DR, Cochi SL. Poliovirus vaccines. Progres toward global poliomyelitis eradication and changing routine immunization recommendations in the United States. Pediatr Clin North Am. 2000;47:287-308.
14. Schoeps A, Ouédraogo N, Kagoné M, Sié A, Müller O, Becher H. Socio-Demographic determinants of timely adherenceto BCG, Penta3, Measles, and complete vaccination schedule in Burkina Faso. Vaccine. 2013;32:96-102.
15. Topaloğlu N, Yıldırım Ş, Tekin M, Saçar S, Peker E, Şahin EM. Opinions of the parents of children with upper respiratory tract ınfection about the ınfluenza

vaccine. International Journal of Clinical Research. 2013;1:10-3.
16. Kumar S, Preetha GC. Health promotion: an effective tool for global health. Indian J Community Med. 2012;37:5–12.
17. Kassahun MB, Gashaw AB, Alemayehu ST. Level of immunization coverage and associated factors among children aged 12–23 months in Lay Armachiho District, North Gondar Zone, North West Ethiopia: a community based cross sectional study. BMC Res Notes. 2015;8:239.
18. Babadağlı F. Delayed and lack of immunization and risk factors among children aged 12-36 months attending Yalova State Hospital (Unpublished master's thesis). İstanbul, İstanbul University, Institute of Health Science, Mother and Child Health, 2007.
19. Canbaz S, Peşken Y, Sünter AT. Comparison of health center records with information from mothers on immunization. Journal of Cumhuriyet University School of Nursing. 2001;5:48-53.
20. Olumuyiwa OO, Ewan FA. Francois PM, Vincet IA. Determinants of vaccination coverage in rural Nigeria. BMC Public Health. 2008;8:1-8.
21. Uzuner A, Akman M, Altıokka Ö, Çelik U, Abubeker İ, Varol A. Postpartum mothers' level of knowledge of about childhood vaccines. Türkiye Klinikleri J Pediatr. 2005;14:1-9.
22. Abdel FM, Zaki A, Bassili A, El-Shazly M, Tognoni G. Breast self- examination practice and ıts impact on breast cancer diagnosis in alexandria, Egypt. East Mediterr Health J. 2000;6:34–40.
23. The Ministry of Health of Turkey Turkey Health Report, 2014. Ankara, The Ministry of Health of Turkey, 2014.
24. Govani KJ, Sheth JK, Bala DV. Immunization status of 12-23 months children in Rural Ahmedabad. Healthline. 2013;4:38-42.
25. Yaprak I, Halıcıoğlu O, Kurun Ü, Okçu SÇ, Akduman İ. Vaccination status in 2 to 6 year old children and the related risk factors. The Journal of Tepecik Education and Research Hospital. 2005;13-2.
26. İncili HD. Knowledge levels about vaccine mothers of children that appeal to chıldren's polyclinic (Uzmanlık tezi). İstanbul, Ministry of Health Bakırköy Dr. Sadi Guest Training and research Hospital, 2009.
27. Şentürk Z, Kural B, Akkuş CH, Hatipoğlu S. The application frequency of vaccines which are not in the national ımmunization programme in a well child clinic. Journal of Pediatrics Speciality Academy. 2013;1:15-22.
28. Yiğitalp G, Ertem M. Reasons for drop out of Immunization in children aged between 0-12 months in Diyarbakır, TAF Prev Med Bull. 2008;7:277-84.