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Research Article

Validity and Reliability of Turkish version of Vaccination Confidence Scale for Parents

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ABSTRACT

Aim: The aim of this study was to conduct a validity and reliability of the Vaccination Confidence Scale and to determine the knowledge, attitudes, and behavior of parents regarding childhood vaccinations.

Method: This methodological study consisted of parents of 8th grade students in three districts of Istanbul from March 1 to May 1, 2017 (n=263). Data were collected using a questionnaire developed by the researcher and the Vaccination Confidence Scale.

Results: The Vaccination Confidence Scale was found to be valid and reliable in this study. Seventy-six percent of the parents had had their children vaccinated with all the vaccines that the Ministry of Health recommended. There was no statistical difference between the overall score and the subscale scores of the parents on the Vaccination Confidence Scale ($p>0.05$).

Conclusion: The Vaccination Confidence Scale may be used to assess the confidence parents have in vaccinations.Healthcare professionals should accurately inform families about vaccination calendars so that vaccinations can be carried out in time.

Keywords: Attitude, immunization, parents, Vaccination Confidence Scale

INTRODUCTION

Immunization is the main method of protection in preventing childhood fatalities. Vaccinations are one of the most common methods used in fighting the microorganisms that confront us in our everyday environment. Immunization is carried out to protect adults, adolescents, and infants before they contract a particular disease. Inoculation is the most effective and cost-efficient method of protection against infectious diseases in the area of public health around the world. It is estimated that approximately 2 to 3 million deaths are averted in this way every year (WHO, 2018).

The first vaccination to be recorded in history was the smallpox vaccine developed by Edward Jenner in 1796 (WHO, 2019). Jenner realized that women in England who had recovered from cowpox seemed to be naturally protected from smallpox. He began to experiment by injecting vesicular fluids from these women into the blood of healthy persons and later discovered that, when individuals consented to have this smallpox inoculation, this provided immunity against the disease. He called this method "vaccination". Developments in immunization gained speed with Pasteur. In 1885, Pasteur used a vaccine produced from a rabbit's spinal fluid to treat a person bitten by a dog. With this trial, Pasteur not only discovered the source of infection but also learned that, when weakened microorganisms were administered to healthy individuals, these persons would be immunized against infectious diseases. The vaccines for whooping cough, tuberculosis, and diphtheria were found from 1920 to 1930 (National Health Services, 2016).

The last case of smallpox was seen in Somalia in 1977, and as a result of the global inoculation program initiated by the World Health Organization, the disease was considered officially eradicated from the world in 1980 (World Health Assembly, 1980). In 1974, the Expanded Program on Immunization (EPI) was unveiled. The EPI made it possible to bring down the incidence of diseases avoidable through vaccination, producing major declines in morbidity and mortality. The main principle of this program was to

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make sure that 90% of babies would be inoculated, beginning at birth, against eight preventable diseases, with the aim of raising this percentage to 95% and eradicating all preventable diseases. Turkey has adopted the EPI in 1981, and since 1985, an inoculation campaign was initiated and conducted by the Ministry of Health. In Turkey, BCG, hepatitis A and B, diphtheria, whooping cough, tetanus, polio, measles, German measles, mumps, *Haemophilus influenzae* type B, conjugated pneumococcal, and chickenpox vaccines are all supplied by the health institutions free of charge (Republic of Turkey Ministry of Health, 2008).

The importance of preventing disability and fatalities from contagious diseases is well recognized. Factors such as mass media, geographical elements, policies, accessibility of vaccinations, costs, trust in health professionals, and beliefs, knowledge, and attitudes of parents toward immunization play a role in achieving vaccination goals (WHO, 2013). For this reason, it is important to determine to vaccination confidence with valid and reliable measurement tool for parents.

The correlation between the knowledge, beliefs, and attitudes of parents and their children's vaccinations has been discussed in previously published studies. Among the barriers to vaccination are incorrect or insufficient knowledge, ignorance about the importance of protection against contagious diseases, and lack of knowledge about vaccination programs and boosters (Fitch & Racine, 2004). In a study in Turkey conducted by Ozkan and Catiker, mothers do not know enough about vaccinations or what can happen when the vaccination program is not followed or when children miss their shots and that they have beliefs that their children may become sterile after a vaccination (Ozkan & Catiker, 2006). Uzuner, Akman, Altiokka, Celik, Abubeker, & Varol, found in their study that mothers' education and income status, social security status, pregnancy monitoring, and receiving a tetanus shot in that period were associated with their knowledge about vaccination (Uzuner et al., 2005). Additionally, in recent years, the media has frequently focused on the fact that parents exhibit a negative attitude toward having their children inoculated. In a previous literature, no study on this issue in the context of Turkey has been found. It is, however, constantly being brought to the attention of the public that parents have a general distrust of vaccines.

It is important in vaccination programs that not only access to healthcare personnel, technical services, and policies regarding inoculation are correctly implemented but also parents are sufficiently educated in this context. Preventive healthcare is one of the more important areas of nursing services. The results of the present study may provide guidance to public health and pediatric nurses actively involved in vaccination programs in dealing with issues regarding vaccination brought to the fore by parents and in determining the needs of parents for education on health matters.

The primary aim of the study was to conduct a validity and reliability of the Vaccination Confidence Scale for Turkish language. Then, the authors also determined that the knowledge, attitudes, and behavior of parents regarding childhood vaccinations.

METHOD

Study Design

This study is methodological, study design.

Sample

The study was conducted at three public schools in different parts of Istanbul-one on the European side and two on the Asian side of the city-from March 1 to May 1, 2017. This study comprised parents of 8th grade students in the designated schools (n=550). A sample selection was not performed. A total of 263 parents were reached in this interval (participation rate=47.8%).

Data Collection

Data were collected using a questionnaire developed by the researcher and the Vaccination Confidence Scale. The questionnaire consisted of questions regarding the mother's age, civil status, educational level, socioeconomic status, profession, and other demographic data designed to measure beliefs and knowledge about the necessity for and benefit of vaccinations.

The Vaccination Confidence Scale: This scale developed by Melissa B. Gilkey (TARİH)comprises eight items. These are scored from 0 (I strongly disagree) to 10 (I strongly agree). The scale measures three factors: benefits of vaccination, harms of vaccination, and trust in healthcare providers. The first four items determine the beliefs about the benefits of vaccination; items 5 and 6 refer to beliefs about the

harms of vaccination, and items 7 and 8 refer to the confidence felt toward healthcare providers. Possible scores on the instrument range from 0 to a 80. The higher the overall score on the scale is, the higher is the indication of confidence in vaccinations. The validity and reliability testing of the Turkish version of the scale was carried out in this study.

The translation/back-translation method was used in the linguistic adaptation of the scale. The validity of the scale was evaluated in terms of content and construct validity. The opinions of 10 academics were enlisted in regard to content validity. These experts were asked to assess each scale item on a range of 1 to 4 in terms of comprehensibility, simplicity, and whether or not it was relevant to measuring vaccination confidence. This numerical range represented 1 for "not relevant", 2 for "must be made relevant", 3 for "relevant but needs minor revisions", and 4 for "quite relevant". A pilot study was implemented with a small group of 15 individuals to assess the comprehensibility of the scale items. It was concluded at the end of this study that all of the items were comprehensibly expressed.

The construct validity of the scale was assessed using confirmatory factor analysis (CFA). The reliability of the scale was assessed using item analysis and by examining internal consistency.

Statistical Analyses

Data were evaluated using the Statistical Package for the Social Sciences (SPSS Inc.; Chicago, IL, USA) 18.0 program. Descriptive statistics was used in the analysis as well as in the Kruskal-Wallis and Mann-Whitney U tests for comparison of the Vaccination Confidence Scale in terms of independent variables. The Kolmogorov-Smirnov Z test was employed in the analysis of normal distribution of the Vaccination Confidence Scale, and it was found that the data did not display normal distribution ($p>0.05$).

The content validity of the scale was evaluated using the Content Validity Index (CVI) both on an item basis and in terms of the overall scale. The CVI for each item was computed by dividing the number of specialists who rated the scale as 3 or 4 by the total number of specialists. The CVI on the scale level was found by finding the arithmetic mean of the item CVI scores. In the review for content validity, all of the specialists assigned a score of 3 or 4 to each of the scale items (3 for "relevant but needs minor revisions" and 4 for "quite relevant"). This signified an agreement among the raters and a confirmation of all of the items. As the CVI was calculated, no need was felt for a second analysis (such as Kendall W analysis) to test content validity. Internal consistency was assessed based on Cronbach's a coefficient; Pearson's correlation analysis was used for item analysis, and CFA was used for construct validity. LISREL 8.0 program was used in CFA.

Ethical Considerations

Permission for the study was obtained from the Marmara University Health Sciences Institute Ethics Committee and the Ministry of National Education. The participating parents provided their written informed consent.

RESULTS

Of the 550 parents invited to participate in the study, 263 actually participated (participation rate=47.8%). Five questionnaires were excluded from the study due to missing data. The study was ultimately completed with the participation of 258 individuals.

Of the parents who filled out the questionnaires, 77.1% (n=199) were mothers and 22.9% (n=59) were fathers. The mean age of the participants was 41±5.1 years; parents' mean number of children was 2.6. Of the mothers, 48.1% (n=124) were elementary school graduates and 75.6% (n=195) were housewives; of the fathers, 31.8% (n=82) were middle school graduates and 88.4% (n=228) were employed.

Vaccination Confidence Scale Validity and Reliability

1. Step: Linguistic adaptation of the scale

The original form of the scale was translated from English into Turkish by three experts in their field. The three translations were found to be quite similar to each other. A back-translation was then requested of another expert. The back-translation was found to be quite similar to the original version of the scale.

2. Step: Construct Validity of the Scale

The validity of the scale was evaluated in terms of content and construct validity.

Content Validity

The relevance (content) of the scale items was assessed as 1 both based on item and in terms of the overall scale. The comprehensibility of the items

was between 0.80 to 1 and 0.97 based on the overall scale. The simplicity of the items was between 0.90 to 1 and 0.98 based on the overall scale.

Construct Validity

The construct validity of the scale was assessed using CFA. The results of the analysis revealed that the fit indices of the Vaccination Confidence Scale were excellent, and it was decided that the scale confirmed its original three-factor form (Table 1).

3. Step: Reliability of the Scale

In the item analysis of the scale, item-total correlations were found to be in the range of 0.12 to 0.64.

Table 1. CFA fit indices

Fit indices	Reference*	Results
χ^2/degrees of freedom	5 ↓=Medium fit 3 ↓=Excellent fit	16.92/17=0.99
p value	p<0.05=Non-fit p>0.05=Excellent fit	0.459
GFI	0.90 ↑=Good fit 0.95 ↑=Excellent fit	0.98
Adjusted GFI	0.90 ↑=Good fit 0.95 ↑=Excellent fit	0.97
Comparative fit index	0.90 ↑=Good fit 0.95 ↑=Excellent fit	1.00
Non-normed fit index	0.90 ↑=Good fit 0.95 ↑=Excellent fit	1.00
RMS residual	0.10 ↓=Weak fit 0.08 ↓=Good fit 0.05 ↓=Excellent fit	0.30
Standardized RMS residual	0.10 ↓=Weak fit 0.08 ↓=Good fit 0.05 ↓=Excellent fit	0.03
RMS error of approximation	0.10 ↓=Weak fit 0.08 ↓=Good fit 0.05 ↓=Excellent fit	0.000

Reference: Çoklu Ö, Şekercioğlu G, Büyüköztürk (2012). Multivariate Statistics for Social Sciences: SPSS and LISREL Applications, 2nd edition, Pegem Publication, Ankara.
CFA: confirmatory factor analysis; GFI: goodness-of-fit index; RMS: root mean square

Item-subscale correlations were in the range of 0.44 to 0.64. Cronbach's a coefficient for the scale was found to be 0.70 (Table 2).

Parents' Knowledge, Attitudes, and Behavior

In this study, 69.9% of the parents knew that vaccinations provided immunity against microbes. When they were asked which illnesses could be prevented with vaccinations, 70.8% stated that they knew there was a vaccination for measles, 69.3% knew about a vaccination for chickenpox, and 56% knew about the tuberculosis vaccine. In contrast, 22.2% said that they did not know which illnesses could be prevented. When the parents were asked what harms could come to their children by not being vaccinated, 47.7% said that the course of the disease would be more serious, 43.4% said that the child would contract the disease more quickly, 42.2% said that the children could contract fatal infectious diseases, and 34.1% said that they could become disabled after an infectious disease. Among the parents, 73.6% thought that vaccinations have side effects. In terms of side effects, pain was the side effect 72.6% of the parents believed would occur and 5.3% of the parents believed vaccinations would lead to sterility.

When the parents were asked what they knew about the childhood vaccinations the Ministry of Health recommended, aside from 70.5% of the parents who mentioned tetanus, 64% of the parents pointing to chickenpox, and 62% of the parents mentioning measles, the rate of being informed about the available vaccinations was less than 50%. Although tuberculosis is a common and known disease, it was observed that knowledge about the tuberculosis vaccine was 20.9%. At the same time, it was found that although these vaccinations are not on the inoculation calendar, 41.9% of the parents believed that flu shots were required inoculations; 12% believed that the rotavirus vaccine and 5.4% believed that the human papillomavirus (HPV) vaccine were required. Of the parents, 67.4% kept their children's vaccination cards.

When they were asked about the HPV vaccine, 17.6% of the parents said that they did not intend to have their child inoculated for that disease, 12.8% said that they could possibly have it done, and 52.8% said that they knew nothing about this vaccine and had never heard of it.

Table 2. Item-total correlations for the Vaccination Confidence Scale

Subscales	Items		X	SD	r	r1
Benefit α=0.74	1.	Vaccines are necessary to protect the health of teenagers.	7.42	3.159	0.42	0.46
	2.	Vaccines do a good job in preventing the diseases they are intended to prevent.	8.12	2.469	0.53	0.59
	3.	Vaccines are safe.	7.62	2.691	0.64	0.64
	4.	If I do not have my teenager vaccinated, he/she may get a disease such as meningitis and cause other teenagers or adults also to get the disease.	7.10	3.428	0.42	0.51
Harms α=0.64	5.	Teenagers receive too many vaccines.	7.29	3.178	0.12	0.47
	6.	If I have my teenager vaccinated, he/she may have serious side effects.	6.94	3.452	0.17	0.47
Trust α=0.61	7.	In general, medical professionals in charge of vaccinations have my teenager's best interest at heart.	7.62	2.958	0.56	0.44
	8.	I have a good relationship with my teenager's healthcare provider.	7.50	3.115	0.40	0.44

r: item total scale score correlation; r1: item subscale score correlation; X: mean; SD: standard deviation

Table 3. Attitudes of parents toward vaccinations (N=258)

Characteristics	n	%
Did you have your child inoculated with all the vaccines recommended by the Ministry of Health?		
Yes, I had them all done.	196	76
No, there are some missing.	35	13.6
I didn't have any of them done.	1	0.4
I don't know/I don't remember.	26	10.1
Where did you have your child's vaccinations administered?		
Family health center/dispensary	210	81.7
State hospital	21	8.2
Private hospital	18	7
University hospital	4	1.6
Private doctor's offices	4	1.6
Did you consent to having your child inoculated with the vaccines recommended by the Ministry of Health for primary school 1st grade students?		
Yes, I did. They were administered at school.	242	93.8
No, I did not; I had my private doctor do them.	12	4.7
No, I did not and I did not have the child inoculated.	4	1.6
Did you consent to having your child inoculated with the vaccines recommended by the Ministry of Health for primary school 8th grade students?		
Yes, I did. They were administered at school.	234	91.4
No, I did not; I had my private doctor do them.	12	4.7
No, I did not and I did not have the child inoculated.	10	3.9
Are you thinking of having the HPV vaccine administered to your daughter?		
Yes	16	12.8
No	22	17.6
I'm undecided.	21	16.8
I never heard of it. I have no idea.	66	52.8

HPV: human papillomavirus

When they were asked about where the vaccinations could be administered, 81.7% pointed to the primary care facilities operating as family health centers/dispensaries, and 8.2% said that they could be administered at state hospitals. It was noted that 93.8% said that they had consented to having their children administered the vaccinations recommended by the Ministry of Health in 1st grade and 91.4% said that they had consented to their child being administered these vaccines in 8th grade (Table 3).

The mean score on the parents' Vaccination Confidence Scale was 61 (Q1=51 and Q3=70). The perception of harms in the subscale analysis was found to be higher than the perception of benefit and trust. There was no statistical difference between the overall score and the subscale scores of the parents on the Vaccination Confidence Scale ($p>0.05$). There were no statistical differences found in the comparison of the Vaccination Confidence Scale in terms of the mothers' educational status (KW=1.67; $p>0.05$).

To the question about whether the parent thought vaccinations were required, the total score on the Vaccination Confidence Scale of the parents saying "Yes" was statistically higher than those saying "No" or "I'm undecided" ($p<0.001$). In the subscales, although the perception of benefit was statistically higher among the parents responding "Yes" compared to the "No" and "I'm undecided" responses ($p<0.001$), no difference was found in terms of harms ($p>.05$). In terms of the perception of trust, this was statistically higher among the parents responding "Yes" compared to those responding "No" or "I'm undecided" ($p<0.001$).

DISCUSSION

Vaccination Confidence Scale Validity and Reliability

This study addressed the validity and reliability testing of the Vaccination Confidence Scale. The validity and reliability findings in the study were similar to those in the study of the original scale. According to literature, an attitude scale is not considered reliable if Cronbach's a is less than 0.40. A coefficient of between 0.40 and 0.59 signifies low reliability, 0.60 to 0.79 means good reliability, and values between 0.80 and 1.00 designate excellent reliability (Alpar, 2010). Cronbach's a values for both the overall scale and its subscales (overall a=0.70; benefits=0.74; harms=0.64; trust=0.61) were within the range of reliability (Table 2).

Parents' Knowledge, Attitudes, and Behavior

A large majority of the parents knew that vaccinations provided protection from illnesses and immunity against microbes (Table 3). In a review of the literature, in two different studies by Incili and Ozkan, a large percentage of mothers stated that vaccination was necessary for protecting against diseases, but the percentage of those who knew the importance of vaccinations against contagious diseases was lower than in this study (Ozkan & Catiker, 2006; Incili, 2009).

A large percentage of the parents in this study believed that vaccines have side effects. It has been shown in similar studies that families think that vaccines produce side effects (Table 3). In a study conducted in Van, a large percentage of mothers said that vaccines had side effects and they had therefore not had their children vaccinated. A study in Sanliurfa revealed that 21.2% of mothers believed that vaccines were harmful, and in a study conducted in Ankara, it was shown that mothers had missed the opportunity to have their children vaccinated because they believed it would be harmful to them (Arica, Edirne, Uluc, Gucuk, & Arica, 2009; Kurcer, Simsek, Solmaz, Dedeoglu, & Gulel, 2005; Tasar & Dallar, 2015). In a study conducted in Libya, negative attitudes such as being afraid of vaccinations was a major influence that led mothers to be against vaccinations (Bofarraj, 2011). Although in this study the percentage of parents thinking that vaccination would bring about sterility was low (Table 3), in a review of the literature, similar results were reported in studies of Kurcer et al. and Ozkan and Catiker (Kurcer et al., 2005; Ozkan & Catiker, 2006). Despite low percentages in this context, however, the news generated in the media from time to time may result in shaking the confidence of parents regarding vaccinations and may thus have an influence on vaccination rates.

It was determined that among the illnesses that vaccination can prevent, parents know the most about tetanus, measles, and chickenpox (Table 3). In the study of Uzuner et al., 51.1% of mothers knew most about the measles vaccine; this rate was 76.8% in the study of Incili and 71.5% in the study of Goksugur (Goksugur, 2006; Incili, 2009; Uzuner et al., 2005). Even Although tuberculosis has been quite widespread in Turkey for many years, the fact that more than half of the parents participating in this study did not know about the tuberculosis vaccine is evidence that people in the community do not have

enough knowledge about illnesses that are preventable through vaccination.

When the parents were asked which vaccines the Ministry of Health has on its national vaccination calendar, a large percentage pointed to tetanus, chickenpox, and measles (Table 3). In the study of Derince, tuberculosis, tetanus, and measles were the most widely known vaccines (Derince, 2006). Meanwhile, the parents thought that rabies, HPV, flu, and rotavirus vaccines were among the vaccines recommended by the Ministry of Health, although this is not true. The finding that parents are aware of the existence of vaccines that are not in the routine vaccination calendar and think that these are actually recommended as childhood vaccines indicates that they do not have enough knowledge about which vaccines are routinely implemented in childhood.

The percentage of parents who were thinking of having their daughters inoculated with the HPV vaccine against cervical cancer was considerably low. Half of the families participating in this study had never heard of it (Table 3). Bulbul et al. also showed that half of the mothers in their study had no knowledge about this vaccine, and as the HPV vaccine is provided for a fee, more than half of the mothers said that they would have their daughters vaccinated only if it was free of charge (Bulbul et al., 2013). It can be seen that, in the effort to make the use of the HPV vaccine more widespread, families need to be informed and there is a need for more studies in this context.

In the study of Gust et al., although parents felt anxious about vaccinations, a large percentage did, however, have their children vaccinated (Gust et al., 2004). A large part of the parents in this study stated that they consented to have their children vaccinated in accordance with the recommendations of the Ministry of Health. Although parents can adopt negative attitudes toward vaccinations and not have their children vaccinated in reaction to some of the news conveyed by the media, it was noted that the parents in this study believed in the necessity and consented to the practice of vaccination (Table 3).

Gust et al. have asserted that, to improve and maintain the practice of vaccination, it is necessary to focus on identifying the attitudes, beliefs, and behavior that define vaccination confidence and that healthcare facilities that administer vaccination services should form effective communication with parents to promote vaccination confidence and enlighten them about the benefits and harms (Gust et al., 2004).

In the study of Gilkey, Magnus, Reiter, McRee, Dempsey, & Brewer, it was demonstrated in an evaluation of parents' attitudes toward vaccination using the Vaccination Confidence Scale that, similar to the results of this study, vaccination confidence was high. Contrary to the findings of this study, however, Gilkey et al. reported that a low level of education was a factor that influenced vaccination confidence (Gilkey et al., 2014).

CONCLUSION AND RECOMMENDATION

The Vaccination Confidence Scale was found to be valid and reliable. Parents were aware of the necessity of vaccinations, and a large majority of the families had their children vaccinated with the vaccines recommended by the Ministry of Health. Most of the parents chose to apply to the primary care health institutions for vaccination services. A large percentage of the parents believed that vaccines have side effects. There was no statistical difference between the overall score and the subscale scores of the parents on the Vaccination Confidence Scale. There were no statistical differences in the Vaccination Confidence Scale in terms of the mothers' educational status. Sociodemographic factors had no effect on the attitudes of the parents toward vaccination. Parents who thought the vaccinations are necessary had more confidence in the benefits of vaccination and more trust in healthcare professionals.

Because of their active role in vaccination services, midwives and nurses should identify the subjects that families need to learn about on the subject of vaccinations and organize courses for this purpose, aiming to eliminate erroneous information and achieve behavioral change.

Not knowing the correct vaccination schedule is one of the reasons for interruptions in vaccination programs. Because of this, healthcare professionals should accurately inform families about vaccination calendars so that vaccinations can be carried out in time.

Practices geared to increase confidence in healthcare personnel carrying out the vaccination program should be adopted so that positive attitudes toward vaccination can be promoted.

Studies to determine the factors influencing parents' attitudes toward vaccination should be con-

ducted. These studies should be implemented with larger samples and in such a way as to also include the private school network.

The Vaccination Confidence Scale may be used to assess the confidence parents have in vaccinations. The last Turkish version of the Vaccination Confidence Scale was shown in appendix.

Ethics Committee Approval: Ethics committee approval was received for this study from the ethics committee of Marmara University Health Sciences Institute Ethics Committee.

Informed Consent: Written informed consent was obtained from participating parents who participated in this study.

Peer-review: Externally peer-reviewed.

Author Contributions: Concept – İ.N.Ö., H.K.; Design – İ.N.Ö., H.K.; Supervision – İ.N.Ö., H.K.; Resources – İ.N.Ö., H.K.; Materials – İ.N.Ö., H.K.; Data Collection and/or Processing – İ.N.Ö.; Analysis and/or Interpretation – İ.N.Ö., H.K.; Literature Search – İ.N.Ö., H.K.; Writing Manuscript – İ.N.Ö., H.K.; Critical Review – İ.N.Ö., H.K.; Other – İ.N.Ö., H.K.;

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Appendix

Aşı Güvenirlik Ölçeği
Lütfen aşağıda yer alan her bir ifadeye (0) kesinlikle katılmıyorum, (10) kesinlikle katılıyorum arasında bir puan veriniz. Seçtiğiniz puan üzerine (X) işareti koyunuz.

Maddeler	Kesinlikle katılmıyorum (0)	1	2	3	4	5	6	7	8	9	Kesinlikle katılıyorum (10)
1. Aşılar ergenlerin sağlığını korumak için gereklidir.	0	1	2	3	4	5	6	7	8	9	10
2. Aşılar, önlenmesi amaçlanan hastalıkları önlemekte oldukça başarılıdırlar.	0	1	2	3	4	5	6	7	8	9	10
3. Aşılar güvenlidir.	0	1	2	3	4	5	6	7	8	9	10
4. Eğer oğluma/kızıma aşı yaptırmazsam; menenjit gibi hastalıklara yakalanabilir ve başka gençlere ya da yetişkinlere bulaştırabilirler.	0	1	2	3	4	5	6	7	8	9	10
5. Ergenler çok fazla aşıya maruz kalıyor.	0	1	2	3	4	5	6	7	8	9	10
6. Eğer çocuğuma aşı yaptırırsam, ciddi yan etkiler yaşayabilir.	0	1	2	3	4	5	6	7	8	9	10
7. Aşıdan sorumlu sağlık çalışanları genellikle çocuğum için en iyisini düşünürler.	0	1	2	3	4	5	6	7	8	9	10
8. Çocuğuma sağlık hizmeti verenler ile iyi ilişkiler içindeyim.	0	1	2	3	4	5	6	7	8	9	10