

The Effect of Label and Medication Package Insert Reading Habits of Parents on their Children's Oral Dental Health

Pınar Serdar Eymirli */Şeyma Öztürk **/Sevilay Karahan ***/ Melek Dilek Turgut ****/
Meryem Uzamış Tekçiçek *****

Objective: The aim of this study is to evaluate the relationship between packaged product label and medication package insert reading habits of parents and their children's oral/dental health.

Study design: A questionnaire including demographic characteristics and label/insert reading habits was filled by parents of 301 children who referred to the Pediatric Dentistry Department. The children were examined intraorally and dmft/DMFT and ICDAS II scores were recorded. The data were evaluated statistically.

Results: Label and medication package insert reading were found in 71.4% and 88.4% of the parents, respectively. Label reading increased as the age of the child and the number of children in the family increased. Medical package insert reading increased as the mother's education and SLS/paraben knowledge increased. Decrease of 1 point in ICDAS II resulted in the 1.410 times increase in the rate of medical package insert reading of the parents.

Conclusion: It is concluded that improving the label and medical insert reading rate of the parents would be effective for providing better oral and dental health for their children.

Keywords: Oral health, Caries, Packaged product, Label, Medical package insert

INTRODUCTION

Tooth decay has been accepted as one of the most common chronic diseases in the childhood¹. Fermentable carbohydrates, cariogenic bacteria, improper oral hygiene and eating habits, lack of fluoride along with genetic factors influencing saliva and tooth morphology, are the possible etiological factors¹⁻². Among them, oral hygiene, eating habits, and fluoride usage can be modified in order to reduce caries prevalence in children according to the American Association Pediatric Dentistry (AAPD)³. Regular use of fluoride toothpaste and professional fluoride application have been proven effective in reducing caries in areas where the water fluoride level is less than 0.6ppm. According to the current guideline, a pea-size for the 3-6 age range and no more than smear or rice-size for children under the age of 3 has been advised³. The European Association of Pediatric Dentistry recommends 1000 ppm fluoridated toothpaste as much as rice-size for children between 6 months and 2 years of age, 1000 ppm as much as pea-size for children aged 2-6 years, 1450 ppm as much as pea-size for children aged 6 and over with high caries risk⁴.

Regarding eating habits, the AAPD guideline recommends reducing sugar consumption to 5% of the total daily energy intake in order to reduce children's weight gain and dental caries⁵. In the guideline, it has been also pointed out that both the parents and

*Pınar Serdar Eymirli DDS, PhD, Research Assistant, Hacettepe University, Faculty of Dentistry, Department of Pediatric Dentistry, Ankara, Turkey.

**Şeyma Öztürk DDS, Research Assistant, Hacettepe University, Faculty of Dentistry, Department of Pediatric Dentistry, Ankara, Turkey.

***Sevilay Karahan PhD Assistant Professor Hacettepe University, Faculty of Medicine, Department of Biostatistics, Ankara, Turkey.

****Melek Dilek Turgut DDS, PhD, Professor, Hacettepe University, Faculty of Dentistry, Department of Pediatric Dentistry, Ankara, Turkey.

*****Meryem Uzamış Tekçiçek DDS, PhD, Professor, Hacettepe University, Faculty of Dentistry, Department of Pediatric Dentistry, Ankara, Turkey.

Corresponding Author:

Pınar Serdar Eymirli
Hacettepe University, Faculty of Dentistry, Department of Pediatric Dentistry, Altındag, 06100, Ankara, Turkey
E-mail: pinarserdar@hotmail.com

healthcare professionals should be aware about the sugar content of foods, beverages and oral liquid medications⁽⁵⁻⁶⁾. For this purpose, paying attention to the content of the products is necessary. It has been reported that with the increase in the welfare of the countries, consumers have been more careful not only to the content, but also to the safety and healthiness of the products. In this regard, reading the labels containing information that identifies the product and enables this information to be conveyed to the consumer in an understandable manner is the practical way during the purchase of the product⁷. For this purpose, packaged food labels provide information related to the content, portion, calorie, and nutritional value of a product. Mandatory food labeling was introduced by The US Drug and Food Administration (FDA) in 1993 in order to promote healthy eating⁽⁸⁾.

In addition to reading food labels, reading medical package inserts should be considered under the heading of healthy living awareness. Medical package inserts provide detailed drug information². A 2007 Institute of Medicine study reported that in-hospital adverse drug reactions occur at a rate of 400,000 per year, resulting in an additional \$ 3.5 billion in hospital expenses. It is thought that by increasing the comprehensibility of the medical package insert, it can be read more by the patients and thus the drug side effects and unnecessary hospital expenses can be prevented¹⁰⁾.

In the literature, there have been studies regarding the effect of label reading habit on general health including weight control, healthy eating and decreasing the prevalence of chronic disease¹¹⁻¹³. Studies evaluating drug package reading habits have been concerned on whether read or not and intelligibility^{9,14-15}. However, to the authors' knowledge, no study evaluated the effect of label and/or medical package insert reading habits on oral and dental health.

Therefore, the aim of this study is to evaluate the relationship between packaged product label and medication package insert reading habits of families and oral/dental health of their children.

MATERIALS AND METHOD

Ethics and Participants

The descriptive study protocol was approved by the Hacettepe University, Ethics Boards and Commissions (Approval number: GO 20/534). The parents of the patients who referred to the Department of Pediatric Dentistry between June and September 2020 were included in the study. Rejection to participate, mental/physical disease and dental trauma were the exclusion criteria. After the power analysis, the number of volunteers to be included in the study was determined as 267 with a 95% confidence interval in order to determine the label reading rate with 6% margin of error.

Data Collection

Verbal and written consents were obtained from the parents allowing data collection, after explaining the study protocol in detail. For pre-testing regarding the content and intelligibility, first draft of the questionnaire was implemented on 30 parents. According to the feedbacks, some questions were revised. The questionnaire was filled by a pediatric dentist (Ş.Ö.) with face-to-face interview method. The questionnaire consisted of 34 questions in two parts. In the first part, some demographic characteristics of the family including the mothers' and fathers' professions and their levels were

questioned. In the second part, questions on label reading habits of the parents were included.

After filling the questionnaire, intraoral examination was performed by another pediatric dentist (P.S.E.) in the dental clinic under the reflector light according to the guideline of the WHO (17). For oral and dental examination, dmft(s)/DMFT(S) index system expressing the total number of teeth or surfaces with caries, fillings and extraction as well as ICDAS II index system which is used for caries detection and assessment were used (18).

Statistical Analysis

Statistical analysis was conducted using the SPSS 23.0 package for Windows. The Kolmogorov Smirnov test was used to check normality in the distribution of the variables, and the homogeneity of the variances was analyzed by the Levene test. Numerical variables were summarized by mean± standard deviation or median [25-75th percentile] as appropriate. Categorical variables were shown as frequencies and percentages. The differences in numerical variables between two independent groups were analyzed using the independent samples t test when variables were normally distributed, or by the Mann Whitney U test when the distribution of the variables were not normal. Relation between categorical variables were determined by chi square or Fisher exact test. Multiple logistic regression analysis was applied to assess the factors predicting reading medication package insert and food label. The *p* value of <0.05 was accepted as statistically significant.

RESULTS

In the study, the questionnaire was answered by 301 parents and mothers comprised 72.8% (219) of them. Among the parents, 61% of the mothers and 67% of the fathers had at least high school graduation (Table 1).

The children were between the ages of 1-14, with the mean age 8.52 ± 2.796 . The percentages of girls and boys were 50.8 and 49.2, respectively. Regarding their oral hygiene habits, 76 children (25.2%) did not brush their teeth whereas 5 children did not have a toothbrush (Table 2). The percentages representing the label and medication package inserts reading of the parents were 71.4 and 88.4, respectively. In Table 2, the factors affecting the selection of the parents for toothbrush and toothpaste as well the part of the labels and drug package inserts that gather the attention of the parents were shown.

Oral examination findings of the children were given in Table 3. The average dmft, DMFT and ICDAS II were 4.12 ± 2.881 , 0.93 ± 1.374 and 4.22 ± 1.885 , respectively.

Paired comparisons of demographic and oral findings with reading of product labels and medication package inserts were shown in Tables 4 and 5. A significant relationship was found between reading of the packaged product labels and age of the child, the number of children in the family, toothbrushing habit of the children, fluoride knowledge of the parents, as well as dentition type, DMFT, DMFS and ICDAS II scores of the children ($p < 0.05$, Table 4). A significant relationship was found between reading of medication package inserts and family type, mother's education, number of children in the family, tongue brushing habit and toothbrushing frequency of the parents, presence of untreated decayed tooth of the parents, regular medication use of the parents, SLS and paraben

knowledge of the parents as well as tooth brushing habit and ICDAS II values of the children ($p < 0.05$, Table 5).

According to the logistic regression analysis, label reading increases as the age of the child and the number of children in the family increase. Label reading was found to be higher in parents with fluoride knowledge and whose child brushed his/her teeth (Table 4).

Table 1. Demographic characteristics of the parents and children

		(n)	(%)
The Questionnaire Answered By	Mother	219	72.8
	Father	82	27.2
Family Type	Nuclear Family	280	93.0
	Extended Family	21	7.0
Number of Children	2 and below	202	67
	3 and above	99	33
Mother's education	Illiterate	9	3.0
	Secondary school and below	107	35.9
	High school and above	182	61
Father's education	Secondary school and below	97	33
	High school and above	197	67
Demographic information of the parent who answered the questionnaire			
Untreated teeth	Yes	132	43.9
	No	132	43.9
	Don't Know	37	12.3
Chronic disease	Yes	54	17.9
	No	247	82.1
Regular medicine usage	Yes	55	18.3
	No	246	81.7

Table 2. Questions regarding oral hygiene, reading of food labels and medical package inserts, and toothpaste ingredients

		(n)	(%)
Do you brush your teeth?	No	52	17.2
	Yes	249	82.7
Which factor(s) influence your choice of toothbrush for yourself?	Dentist's recommendation	95	31.6
	Price	46	15.3
	Toothbrush handle	22	7.3
	Toothbrush head size	44	14.6
	Toothbrush bristle hardness	189	62.8
Does your child have a toothbrush?	No	5	1.7
	Yes	296	98.3
Does your child brush her/his teeth?	No	76	25.2
	Yes	225	74.8
Which factors influence your choice of toothbrush for your child?	Dentist recommendation	138	46.6
	Price	52	17.6
	Toothbrush handle	48	16.2

		(n)	(%)
Which factors influence your choice of toothbrush for your child? (continued)	Toothbrush head size	94	31.8
	Toothbrush bristle hardness	175	59.1
	Other	27	9.1
Does your child use toothpaste?	No	7	2.3
	Yes	294	97.7
What type of toothpaste does your child use?	Adult toothpaste	101	34.4
	Child toothpaste	193	65.6
Which factors influence your choice of toothpaste for your child?	Dentist recommendation	147	50.0
	Price	38	12.9
	Its taste	48	16.3
	Contents	155	52.7
	Child's likes	35	11.9
Do you read medication package inserts?	No	12	4.1
	Yes	35	11.6
Which part gathers your attention in the medication package inserts?	Dosage and administration	220	71.1
	Indications	207	68.8
	Adverse reactions	245	81.4
Do you read food labels?	Pharmaceutical company information	21	7.0
	Pharmaceutical storage conditions	133	44.2
	Pharmaceutical formula	86	28.6
Which part gathers your attention on the food labels?	No	20	6.6
	Yes	215	71.4
Do you know about SLS and paraben? If so, what is your opinion?	Sometimes	66	21.9
	Trademark	191	63.5
	Manufacturer	93	30.9
	Product content	145	48.2
	Production date	211	70.1
	Expiration date	262	87.0
	Storage conditions	147	48.8
	Product amount	90	29.9
	Energy and nutrients	66	21.9
	Warnings	99	32.9
Do you know about fluoride? If so, what is your opinion?	Production place	91	30.2
	No	234	77.7
	Yes	67	22.3
If so, what is your opinion?	Harmful, not recommended	47	70.1
	Useful, recommended	5	7.5
	Not specified	15	22.4
Do you know about fluoride? If so, what is your opinion?	No	199	66.1
	Yes	102	33.9
	Harmful, not recommended	21	20.6
If so, what is your opinion?	Useful, recommended	74	72.5
	Not specified	7	6.9

Table 3. Dentition type and intraoral findings of the children

Dentition	(n)	(%)
Deciduous	77	25.6
Mixed	174	57.8
Permanent	50	16.6

Intraoral examination findings	Mean	Standard deviation	Minimum	Maximum
ICDAS II max	4.22	1.885	0	6
dmft	4.12	2.881	0	14
dmfs	11.62	9.699	0	50
DMFT	0.93	1.374	0	7
DMFS	1.99	3.652	0	20

Table 4. Comparison of demographic and oral findings with reading of product labels

		Do you read product labels?				
		Univariate analysis			Multivariate analysis	
No/Sometimes n (%)		Yes n (%)	p	Odds ratio (95% CI)	p	
Questionnaire answered by	Mother	61 (27.9)	158 (72.1)	0.652		
	Father	25(30.5)	57 (69.5)			
Gender of the children	Boy	36 (24.3)	112 (75.7)	0.109		
	Girl	50 (28.6)	103 (71.4)			
Age of the children (month)	Mean±Std.deviation	93.55±33.80	106.29±33.62	0.003	1.015 (1.00-1.02)	<0.001
	Minimum-Maximum	2 – 161	1 – 173			
Mothers' education	Secondary school and below	36 (30.85)	80 (69.15)	0.508		
	High school and above	50 (27.5)	132 (72.5)			
Fathers' education	Secondary school and below	31 (30.3)	66 (69.7)	0.319		
	High school and above	52 (26.45)	145 (73.55)			
Number of children	2 and below (ref)	48 (22.6)	154 (77.4)		0.486	
	3 and above	38 (38.45)	99 (61.55)	0.008	(0.27-0.82)	0.012
Tongue brushing (parents)	No/Sometimes	58 (32.2)	122 (67.8)	0.087		
	Yes	28 (23.1)	93(76.9)			
Frequency of tooth brushing (parents)	No/Sometimes	20 (38.5)	32 (61.5)	0.185		
	Once a day	35(28.2)	89 (71.8)			
	Twice a day and above	31 (24.8)	94 (75.2)			
Untreated decayed tooth (parents)	No	30 (22.7)	102 (77.3)	0.139		
	Yes / Don't know	56 (32.85)	113 (67.15)			
Chronic disease (parents)	No	75 (30.4)	172 (69.6)	0.141		
	Yes	11 (20.4)	43 (79.6)			
Regular medicine usage (parents)	No	75 (30.5)	171 (69.5)	0.164		
	Yes	11 (20.0)	44 (80.0)			
Tooth brushing (child)	No/Sometimes (ref)	32 (42.7)	43 (57.3)		2.523	
	Yes	53 (24.0)	168 (76.0)	0.002	(1.39-4.56)	0.002
Using a toothpaste (child)	No	4 (57.1)	3 (42.9)	0.106		
	Yes	82 (27.9)	212 (72.1)			
Knowledge about SLS and paraben	No	73 (31.2)	161 (68.8)	0.083		
	Yes	13 (19.4)	54 (80.6)			

Table 4. Comparison of demographic and oral findings with reading of product labels (continued)

		Do you read product labels?				
No/Sometimes n (%)		Univariate analysis			Multivariate analysis	
		Yes n (%)	p	Odds ratio (95% CI)	p	
Knowledge about fluoride	No (ref)	68 (34.2)	131 (65.8)			
	Yes	18 (17.6)	84 (82.4)	0.004	2.31 (1.25-4.26)	0.007
Dentition of the children	Deciduous	31 (40.3)	46 (59.7)			
	Mixed	44 (25.3)	130 (74.7)	0.028		
	Permanent	11 (22.0)	39 (78.0)			
ICDAS II max	Min-Max	0-6	0-6			
	Median (25-75 percentiles)	5.00 (4.00-6.00)	5.00 (3.00-5.00)	0.029		
dmft	Min-Max	0-13	0-14			
	Median (25-75 percentiles)	4.00 (2.00-7.00)	4.00 (2.00-6.00)	0.396		
Decayed tooth (d)	Min-Max	0-11	0-14			
	Median (25-75 percentiles)	2.00 (0.00-5.00)	1.00 (0.00-3.00)	0.034		
dmfs	Min-Max	0-37	0-50			
	Median (25-75 percentiles)	9.00 (4.00-17.00)	9.50 (4.00-17.00)	0.730		
Decayed surface (d)	Min-Max	0-30	0-43			
	Median (25-75 percentiles)	4.00 (0.00-10.00)	2.00 (0.00-6.00)	0.055		
DMFT	Min-Max	0-6	0-7			
	Median (25-75 percentiles)	1.00 (0.00-2.00)	0.00 (0.00-1.00)	0.011		
Decayed tooth (D)	Min-Max	0-4	0-7			
	Median (25-75 percentiles)	0.00 (0.00-1.00)	0.00 (0.00-0.00)	0.178		
DMFS	Min-Max	0-15	0-20			
	Median (25-75 percentiles)	1.00 (0.00-4.00)	0.00 (0.00-2.00)	0.014		
Decayed surface (D)	Min-Max	0-9	0-20			
	Median (25-75 percentiles)	0.00 (0.00-2.00)	0.00 (0.00-0.00)	0.135		

The presence of untreated caries in parents, their regular medicine usage and knowledge about SLS and paraben, nuclear families and high maternal education were found to be related to higher rate of medication package insert reading of the parents. In addition, increase of 1 point in ICDAS II resulted in the 1.410 times decrease in the rate of medication package insert reading of the parents (Table 5).

DISCUSSION

With the increasing demand on the packaged products in all over the world, marketing process of these products has been evolving continuously. In this regard, package of the products is considered as an important factor to gather the attention of the consumers. The effect of the labels of the packages on this issue is controversial as there has been a wide variation regarding the

percentage of label reading among the countries¹⁹⁻²¹. In a study conducted in an African country, Malawi, the percentage of label reading was found to be as 29.1²¹. In South Africa, however, the percentage is higher (55%)²⁰. In studies conducted in European countries the percentages were quite higher with 52% in England, 65% in Ireland, 50% in Sweden and 63% in France²². It was reported that 78% of the consumers read labels in the United States²³. Within the limits of aforementioned studies, it would be reasonable to suggest a relationship between label reading habits and the country where the study was performed.

Mandatory food labeling, was introduced by the FDA in 1993 and in 1997 Food Codex regulations came into force in Turkey²⁴. Considering the studies and laws published around the world for about 20-25 years, it can be thought that people's behavior and attitudes on this issue may have changed over the years. Thus,

Table 5. Comparison of demographic and oral findings with reading of medication package inserts

		Do you read the medication package inserts?				
No/Sometimes n (%)		Univariate analysis			Multivariate analysis	
		Yes n (%)	p	Odds ratio (95% CI)	p	
Gender of the children	Boy	12 (8.1)	136 (91.9)	0.090	2.008 (0.91-4.43)	0.084
	Girl (ref)	23 (15.0)	130 (85.0)			
Family type	Nuclear family (ref)	29 (10.4)	251 (89.6)	0.024	0.371 (0.12- 1.13)	0.083
	Extended family	6 (28.6)	15 (71.4)			
Mothers' education	Secondary school and below (ref)	23 (19.75)	93 (80.25)	0.001	2.286 (0.96- 5.41)	0.060
	High school and above	12 (5.9)	170 (94.1)			
Fathers' education	Secondary school and below	15 (14.35)	82 (85.65)	0.203		
	High school and above	19 (9.65)	178 (90.35)			
Number of children	2 and below	16 (8.0)	186 (92.0)	0.007		
	3 and above	19 (17.95)	80 (82.05)			
Tongue brushing (parents)	No/Sometimes	27 (15.0)	153 (85.0)	0.041		
	Yes	8 (6.6)	113 (93.4)			
Frequency of tooth brushing (parents)	No/Sometimes	12 (23.1)	40 (76.9)	0.011		
	Once a day	14 (11.3)	110 (88.7)			
	Twice a day and above	9 (7.2)	116 (92.8)			
Untreated decayed tooth (parents)	No (ref)	17 (12.9)	115 (87.1)	0.195	2.187 (0.95- 4.99)	0.063
	Yes / Don't know	18 (7.8)	151 (92.2)			
Medical illness (parents)	No	32 (13.0)	215 (87.0)	0.193		
	Yes	3 (5.6)	51 (94.4)			
Regularly used medications (parents)	No (ref)	33 (13.4)	213 (86.6)	0.070	4.500 (0.98-20.49)	0.052
	Yes	2 (3.6)	53 (96.4)			
Tooth brushing (child)	No/Sometimes	12 (16.0)	63 (84.0)	0.227		
	Yes	22 (10.0)	199 (90.0)			
Knowledge about SLS and paraben	No (ref)	34 (14.5)	200 (85.5)	0.007	7.523 (0.94- 59.93)	0.057
	Yes	1 (1.5)	66 (98.5)			
Knowledge about fluoride	No	28 (14.1)	171 (85.9)	0.098		
	Yes	7 (6.9)	95 (93.1)			
Dentition of the children	Deciduous dentition	8 (10.4)	69 (89.6)	0.294		
	Mixed dentition	24 (13.8)	150 (86.2)			
	Permanent dentition	3 (6.0)	47 (94.0)			
ICDAS II max	Min-Max	2-6	0-6	0.005	0.709 (0.524- 0.959)	0.026
	Median (25-75 percentiles)	5.00 (5.00-6.00)	5.00 (3.00-5.00)			
dmft	Min-Max	0-10	0-14	0.888		
	Median (25-75 percentiles)	3.50 (2.00-6.00)	4.00 (2.00-6.00)			
Decayed tooth (d)	Min-Max	0-14	0-4	0.529		
	Median (25-75 percentiles)	1.00 (0.25-4.00)	1.00 (0.00-3.00)			
dmfs	Min-Max	0-43	0-50	0.759		
	Median (25-75 percentiles)	7.50 (3.00-14.75)	10.00 (4.00-17.00)			
Decayed surface (d)	Min-Max	0-43	0-30	0.842		
	Median (25-75 percentiles)	2.00 (0.25- 6.75)	3.00 (0.00-6.00)			

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Table 5. Comparison of demographic and oral findings with reading of medication package inserts (continued)

		Do you read the medication package inserts?			
No/Sometimes n (%)		Univariate analysis		Multivariate analysis	
		Yes n (%)	p	Odds ratio (95% CI)	p
DMFT	Min-Max	0-6	0-7		
	Median (25-75 percentiles)	1.00 (0.00-2.00)	0.00 (0.00-2.00)	0.074	
Decayed tooth (D)	Min-Max	0-5	0-7		
	Median (25-75 percentiles)	0.00 (0.00-2.00)	0.00 (0.00-0.00)	0.036	
DMFS	Min-Max	0-20	0-20		
	Median (25-75 percentiles)	2.00 (0.00-4.00)	0.00 (0.00-2.00)	0.100	
Decayed surface (D)	Min-Max	0-20	0-11		
	Median (25-75 percentiles)	0.00 (0.00-2.00)	0.00 (0.00-0.00)	0.021	

higher label reading levels reported in recent studies indicate the increasing interest of the consumers to the labels^{13,19,25}. In accordance with the recent suggestion, label reading percentage of the parents in our study was found to be 71.4. similar to that of Chopera *et al* which was reported as 77.2%¹⁵.

In the present study, the expiration date (87%) and the production date (70.1%) of the products were the most cared items on the labels. Similar to that finding, in a study conducted in six different countries in Europe, it was reported that consumers mostly paid attention to expiration date, production date, calorie and sugar amounts of the products²⁶. The consumers stated that they also pay attention to the brand of the product (63.5%), as well²⁶. In a study conducted in France, 24% of the consumers stated that they had purchased the products depending on the brands²⁷.

In studies aimed to determine the parameters having an impact on label reading the variables including education, gender, obesity, nutritional knowledge level was investigated^{19,28-31}. It has been reported that gender may play role in label reading as women read more labels than men³⁰⁻³¹. In our study, no such difference was found between men and women. However, this insignificant relationship may be caused by the low number of fathers compared to that of the mothers answered the questionnaire (27.2%).

In the literature, although there have been many studies evaluating the relationship between food label reading and healthy living /obesity, no study has been focused on the relationship between label reading and dental caries^{26,28,29,32}. In the present research, according to the logistic regression analysis, increase of 1 point in ICDAS II resulted in the 1.410 times decrease in the rate of medication package insert reading of the parents. As there has been no such study in the literature, the obtained result could not be compared. However, the higher level of reading medical inserts along with lower level of caries might have been related to the higher social and/or education level of the parents as we have documented some data which might be regarded as a proof supporting the hypothesis.

In some studies, it was stated that reading labels is related to healthy eating desire and understanding the information on the

label is affected by the level of education^{13,33-36}. In our study, no significant relationship was found between parent education and label reading. However, a positive correlation was found between the of mothers' education and medical package inserts reading. The reason for the lack of a similar relationship with the fathers may be due to the inadequate number of fathers in the study as great majority of the parents consisted of mothers (72.8%).

The results of the present study indicated an increase in the label reading of the parent with the increase in their fluoride knowledge and with the toothbrushing habit of the child. This result indicates that the parents aware of tooth brushing and fluoride are also aware of reading labels. However, the results could not be compared as there has been no such study evaluated the relationship between label reading of the parents and tooth brushing habit of their children.

In our study, it was also found that the rate of food label reading of the parents increased 1.015 times as the age of the child increased by 1 month. This result may be interpreted as the increasing awareness of the parents both with the increasing age of them and their children. However, further studies are needed to support the suggestion.

Health literacy is a wide field that requires the individual to be able to define his / her own health / illness and to make appropriate decisions regarding his / her health. Package insert information such as the content and directions for use of the medicine as well as fluoride content of toothpastes are within the extent of this subject³⁷. However, there has been no study evaluated the effect of reading of medication package inserts on dental health. The studies concerned medical package inserts focused on ability to understand and interpret medical terms^{37,38}. Therefore, the present study can be considered as the first study investigating the effect of medication package insert reading habits of the parents on their children's oral health. The percentage of reading medication package inserts reading was 88.4, higher than that of label reading (71.4%) indicating that the parents payed more attention to medications.

In the current study there have been few limitations. The first one can be regarded as the small sample size because of the Covid 19 pandemic and which resulted in an enormously decreased referral of patients to the dental clinics. The other limitation of the study is the lack of a standard questionnaire on this subject in the literature. The third limitation is the likelihood of the parents answering the questions with the perception of reading the labels as a positive behavior.

CONCLUSION

Reading labels and medical package inserts may be regarded as effective tools for healthy living. It would be reasonable to conclude that improving the rate of label and medical package insert reading would be effective in preventing dental caries and improving oral health. Therefore, increasing the awareness of the society and further investigations on this issue are needed.

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