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Lack Of Labeling In A Foreign Language On Medicine And Food Packages In Turkey

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Abstract

Food and drug labels have great importance, especially for some groups of society that suffer from allergies or some diseases, and they must be in the local language of the people of the country. In Turkey, food and drug labels must be in Turkish. Turkey is characterized by flexible laws that make it easier for foreigners to reside there, and officials in Turkey do their utmost best to attract tourists. In this study, we studied the effect of using the Turkish language only on food and drug labels. Foreigners, whether residents or tourists, have been asked to complete a questionnaire seeking their opinions about the problems they face when purchasing food and drug labels and ways to solve them. The study shows that a large percentage of the participants (58.8%) faced problems because of the language used on food and drug labels, and this encouraged most of them (80.2%) to bring their own medicines and food from their country and to try to get their needs from stores that recruited people who speak their language or a language they understand. Also, the absence of a foreign language on food and drug labels has had a negative impact on some tourists. Therefore, we advise in this study to use another language such as English because of its positive impact on the economy, whether directly or indirectly.

Keywords: Label; Language; Food; Medicines; Turkeyq

1.0 Introduction

1.1 Food Labeling

Food labels help us understand the nutritional content of foods and beverages, enabling us to make individual choices and plan our meals and shopping lists [1]. The term "label" refers to any written, printed, or graphic matter on the foods immediate container [2]. Ministry of Food, Agriculture and Livestock in Turkey defines food label as any sign, mark, imprint, picture, or other definitive element written, printed, or marked on the package or container of food [3]. These labels should be written in Turkish language [4]. However, sometimes these labels use terms or statements that can be confusing for some people. Food labels probably make an important contribution to consumer choices. But we don't think they go far enough as there is no foreign language labels in most of the cases so additional labeling requirements in a foreign language is needed. Kessler 2014 states that food labels can do more to influence food choices, reduce obesity, and promote health [5].

Because of the importance of labels to the health of consumers, the concerned authorities in most countries issue regulations that control the shape and content of these labels. The labels must clearly contain the names of the food ingredients and the quantity of each ingredient [6]. A clear warning should be placed in the event that this food contains a substance that may cause allergic reactions to some individuals, such as lactose and gluten [7]. Some studies have proven that the presence of information and warnings in the labels has led to a decrease in the health risks resulting from the use of unsuitable foods [7, 8]. In Turkey, the concerned authorities have developed legislation to achieve the best health protection for consumers and to ensure consumer rights to obtain correct information related to food. This legislation has been updated to bring it into line with EU legislation. With limited exceptions, the labels must include the following information: food name, ingredient list, allergy or intolerance producing materials or products, and amounts of certain components [4].

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1.2 Medicine Labeling

It is important to know the basic information about each prescribed medication. Medicines' labels must be provided with the critical instructional information suitable for individuals who have different level of education and experiences [9]. This leads to help prevent medication errors, promote better communication between the family and the care team, and give patients and families more control and participation in the treatment plan [10, 11]. People should keep essential information of their medications for their records, i.e. they should know drug name - what is the brand and generic name of the drug? Medicines are often known by several names. They should make sure they know how the medicine's name appears on the medicine label. A number of medicines are similar in form and name. Knowing the specific name of each medication helps prevent confusion and errors [12].

Customers must know the effect of each drug and why it was prescribed. For example, is the drug a chemotherapy drug, a pain reliever drug, or an antibiotic? Understanding why each medication is used may help families communicate with their care team and pharmacist. Knowing why medication is needed also encourages adherence to treatment (taking treatment on time and in the prescribed manner). Knowing the effect of medications may also help prevent exposure to medication-related hazards such as interactions or overdosing [13].

Medicines often have a long list of possible side effects. Some of them may be very likely while others are rare. Knowing about possible side effects can help families monitor reactions and catch signs early [14]. Storage of medicines is also important. Some medicines must be refrigerated. The others should be kept at room temperature. Certain medicines may expire quickly once prepared. Individuals need to follow storage instructions to make sure the medicines are working for their intended purpose [15]. Some medicines need special safety measures. For example, chemotherapy, can be dangerous for caregivers. Safe handling instructions must be followed. These instructions may include wearing gloves, properly disposing of medication and supplies, and avoiding exposure to patient's body fluids [16]. In addition, drug interactions may interfere with the drug and reduce its effectiveness. Drug interactions can present a serious health risk to patients [17].

In a nutshell, people should understand in a language they know well all of the aforementioned instruction about food and medicine. In USA, for example, the number of Spanish speakers **is** growing rapidly and many of them speak their original language, Spanish. That is why there are demands that the food and drug labels should contain another language that Spanish speaking people understand so that the goal of these labels is achieved [18]. Hence, the study raises the alarm against lack of food and medicine labeling in a foreign language such as English language in Food and drug stores in Turkey. Therefore, this study aims to explore the opinions of foreigners, whether residents or tourists, about the difficulties they face during their stay in Turkey when purchasing their food and medicine, and how to overcome these difficulties.

2. Methodology

2.1 Research Context

In this study, some residents and tourists were surveyed about the importance of using another language besides Turkish as far as food and drug labeling is concerned. The study was conducted in Istanbul, Turkey, where the questionnaire was distributed to residents and tourists through social networking applications. The questionnaire consists of 24 questions and includes general questions and information about the participants and other questions about the suffering and difficulties that they may have encountered during the purchase of medicine and foodstuff.

2.2 Population and Sample

The study was conducted in Istanbul, Turkey, where the questionnaire was distributed to residents and tourists through WhatsApp and Telegram groups in some residential complexes which accommodates a mixture of Turks and foreigners. The population sample covers those who are tourists or settled on a tourist residence for one or two years and others are here on a real estate or work visa. The questionnaire was also distributed to some ethnic groups, which include certain nationalities through the aforementioned applications as well as through Facebook. The questionnaire was also distributed to some tourists through some tourism companies, which in turn sent the questionnaire via WhatsApp groups and other applications. The views of some foreign teachers and students at Gelisim University were also surveyed through e-mails. In order to maintain the privacy of the participants in the study, the names of the participants, their nationalities and their place of residence were ignored.

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2.3 Data analysis

After completing the questionnaire, the responses of the participants were collected, whether in Arabic or Turkish, and a numerical value was given to each choice for ease of analysis. These responses have been studied and analyzed by SPSS Version 25 software. For the sake of eliciting valid inferences, frequency analysis, percentage analysis and descriptive statistics were used.

3. Results and Discussion

Some countries use their official language in all aspects of life within the country and do not use any other languages, so some foreign residents, especially new ones who have not yet learned the language of the country, as well as tourists, may face problems related to communicating with the people of the country, as well as problems related to lack of labeling on medicine and food items. Therefore, in this study, the opinions of some foreigners residing in Turkey and some tourists were surveyed about the difficulties they face during their stay in Turkey regarding the use of the Turkish language only on medicines and foodstuffs labeling. The number of participants in this study was 434, of whom 63.1% are males and 36.9% are females (Table 1). Of these, 34.6% are employees, 26.2% are not employed, and the remaining 39.2% are students (Table 1). Most of the participants (88.9%) speak Arabic while 1.4% of the participants their mother tongue is English and 0.5% is French, and 9.2% of them speak other languages as shown in Table 1. Most of the participants in this study, 53.9%, are in Turkey for residency purposes, and about one-fourth of the participants (26.7%) are here for studying and the rest (19.4%) are for tourism as shown in Table 1.

Table 1: Socio-demographic profile of participants (n=434).

Variable		Frequency	Percent
Gender	Male	274	63.1%
	Female	160	36.9%
Occupation	Employee	150	34.6%
	Student	170	39.2%
	Not working	114	26.2%
Age	Under 20	74	17.1%
	21 - 30	126	29.0%
	31 - 40	94	21.7%
	Over 40	140	32.3%
Mother Tongue (First Language)	Arabic	386	88.9%
	English	6	1.4%
	French	2	0.5%
	Others	94	9.2%
Purpose of visiting Turkey	Residence	234	53.9%
	Study	116	26.7%
	Tourism	84	19.4%

The results show that most of the participants (61.3%) do not speak Turkish, while a few (17.5%) speak Turkish, and most of those who speak Turkish (71.0%) are students (Table 1, S3) because their learning is mostly in Turkish language. The percentage of those who do not know how to read and write the Turkish language (60.8%) is almost similar to the percentage of those who do not know how to speak in Turkish as shown in Table 1 and S3. It has been observed that the scientific Turkish language used on medicine and foodstuffs may be incomprehensible to some foreigners who speak the colloquial Turkish language and may not know scientific terms.

The study shows that 58.6% of the participants used to read food labels before buying them, and a larger percentage of 66.0% used to read the instructions attached to the medicines as shown in S1 and S4. People

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who suffer from allergies, whether from certain foods or medicines, are advised to read the ingredients to avoid their impact on their health, which may threaten their lives. The study shows that 10.6% of the participants suffer from an allergy to some foods, and 18.0% of the participants are not sure if they are allergic at all (S1 and S2). In addition, 13.8% of the participants suffer from an allergy to some drugs, and 22.6% are not sure (S1 and S2). Also, 57.6% of the participants constantly consume some foods for special reasons as shown in S1 and S5. Therefore, it is expected that these people will suffer greatly when buying their food and medicine due to their lack of knowledge of the Turkish language. S1 and S4 show that a large percentage of the participants (58.8%) faced difficulties in finding food due to the language factor, and 56.0% of the participants also encountered difficulties when purchasing medicines because of the language. Therefore, the majority of participants (74.7%) believe that it is necessary to learn the language to avoid the negative effects that may result from the wrong choice of food or medicine because of the language (S1 and S2). As a result of the above reasons, most respondents (93.8%) believe that a language besides Turkish should be used with both food and medicine (S1 and S5). When the participants were asked about the language they would prefer to add to food labeling, they first chose the Arabic language with a percentage of 48.8%, followed by the English language with approximately the same percentage of 48.4%, while a very small percentage of them (0.5%) preferred to add the French language and 2.3% of the participants preferred to add another language as shown in Table 2.

Table 2: Participants' responses on which language they prefer to be added to medicines and foodstuff (n=434).

Variable	Frequency	Percent
Arabic	212	48.8%
English	210	48.4%
French	2	0.5%
Others	10	2.3%

To solve the problem of not knowing the Turkish language and the repercussions that may result from the absence of labeling in a foreign language on food and drug items, some foreigners may resort to bringing their medicines with them as well as some special foodstuffs. The study showed that the majority of the study participants (80.2%) when visiting their countries of origin bring their own medicines and food with them (S1 and S5). When asked about the reason, 41.9% of them attributed the reason to their fear of the lack of these things in Turkey, and 21.7% of them considered that the language problem is the reason for bringing these materials, while a small percentage of them considered that the language is not the reason for that. And 17.5% of participants attributed the reason to other factors as shown in Table 3.

Table 3: Participants' responses on the reasons behind bringing medicines and foodstuff from abroad (n=434).

Variable	Frequency	Percent
Language problem	94	21.7%
Nothing to do with language	62	14.3%
Fear they are not available	182	41.9%
Others	76	17.5%

Some foreigners may resort to solving the language problem by purchasing medicine and food from stores owned by foreigners or where people speak a language other than Turkish. The results showed that the majority of participants (84.2%) prefer to buy their needs from stores where people speak the same

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language or another language they understand (S1 and S5). When respondents were asked about the reason for their resort to these stores, 60.4% of them considered that the reason is the presence of someone who speaks their language or a language they understand, while 19.8% considered that the reason may be the lack of these materials in Turkish stores, while 10.6% considered that the reason is the ease of communication in their mother tongue and a few number of them 5.5% attributed the reasons to other factors as shown in Table 4.

Table 4: Participants' responses on the reasons behind bringing medicines and foodstuff from abroad (n=434).

Variable	Frequency	Percent
Having someone who speaks my language or a language I understand in the store	262	60.4%
Lack of these materials in Turkish stores	86	19.8%
It's easy to communicate in my language	46	10.6%
Others	24	5.5%

The study confirms that the language problem is the main factor in the participants' preference for buying from stores owned by foreigners, as 81.0% of the study participants showed their desire to buy their needs from Turkish stores where there is someone who speaks their language or a language they understand (S1 and S5). In addition, a large percentage of the participants, 63.6%, sometimes had to leave the store without purchasing due to the language factor (S1 and S5). The study shows that the language problem may affect the repeated visit of tourists to Turkey, as 32.3% of them expressed their unwillingness to repeat the visit because of the language, while 29.5% of them considered their reluctance to repeat the visit, while 38.2% considered that the language factor would not affect their position when visiting Turkey (S1 and S2).
The results show that the language factor has a significant impact on the participants' choice of where to buy medicine and food, as foreigners prefer to buy these necessities from stores where salesmen understand their language. To conclude the language barrier may affect the tourist's decision to repeat his visit to Turkey. Therefore, in this study, we advise Turkish officials to study adding another language such as English on labels of medicines and foodstuffs, especially those that may contain substances that may cause allergies to some people and may have negative repercussions on the health of those people. The presence of another language may encourage foreigners to buy their needs from Turkey instead of bringing them from their countries of origin and may encourage tourists to repeat their visit to Turkey and encourage others who have not visited Turkey before because of the language factor.

4. Conclusion

Food and drug labels contain interesting information to consumers, especially some groups of people who suffer from allergies or some diseases. These labeling must be written in the local language of the people of the country to avoid negative repercussions resulting from not understanding these labels. Food and drug labels in Turkey are written in Turkish only, with a few exceptions. In this study, we studied the effect of using the Turkish language only on the purchasing attitude of foreigners, whether residents or tourists. A questionnaire has been distributed to the participants asking their opinions about the problems they face and ways to solve them. The study showed that most of participants (58.8%) were exposed to problems resulting from their lack of understanding of the language used on the food and drug labels. To avoid these problems, most of the participants (80.2%) tried to bring their medicines and some of their own food from their country of origin. Also, many of them (81.0%) try to get their needs from stores that have people who speak their mother tongue or a language they understand. The results show the use of one language has a negative impact on some tourists and will discourage them from repeating their visit to Turkey again. Therefore, in this study, we advise decision makers in Turkey to try to use another language such as English on food and drug labels because of its positive impact on the economy, whether directly or indirectly. Economy is a great force that informs and guides government action the world around and the Turkish government is no different in this regard.

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Supplementary Files
Lack of Medicine and Food Package Labeling in a Foreign Language in Turkey

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S1. Mean and standard deviation of participants' responses on the questionnaire (n=434).

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	Question	Mean	SD
Q1	Occupation		
Q2	Gender		
Q3	Age		
Q4	Mother Tongue (First Language)		
Q5	Purpose of visiting Turkey		
Q6	Do you speak Turkish?	2.34	1.22
Q7	Can you read and write in Turkish?	2.32	1.29
Q8	Do you suffer from allergies from certain food?	1.39	0.67
Q9	Do you suffer from allergies from certain medicine?	1.50	0.73
Q10	Do you stick to a certain diet for special reasons?	2.88	0.96
Q11	Do you read the labels on food packages before buying?	2.93	0.81
Q12	Do you read the instructions, dosage, side effects and warnings on medicine packages?	3.30	0.83
Q13	Do you experience difficulty in finding some food items due to the Turkish language?	2.94	0.98
Q14	Do you experience difficulty using the medicine because of the Turkish language?	2.80	1.04
Q15	Do you feel the need to learn the Turkish language for fear of the negative consequences of using the wrong food or medicine?	1.75	0.43
Q16	Do you think it is necessary to label food and medicine packages in a foreign language?	4.69	0.61
Q17	Which language do you prefer to add to medicines and foodstuffs (English, Arabic, French, etc.)?		
Q18	If you are a tourist, do you think that the lack of another language on food and medicine items will affect your visit to Turkey again	1.94	0.84
Q19	When you are on a visit to your country, do you bring some food and medicine before you return to Turkey again?	4.01	1.01
Q20	Why do you have to bring in some food and medicine before you return to Turkey again?		
Q21	Do you prefer to buy food and medicine from a store that speaks your language or a language you understand?	4.21	0.94
Q22	Why do you prefer to buy food and medicine from a store that speaks your language?		
Q23	Do you prefer buying food and medicine from a store that speaks your language to Turkish stores?	4.05	0.89
Q24	Have you ever left a store because of not knowing the Turkish language?	1.64	0.48

Response scale: 1 = Strongly Disagree; 2 = Disagree; 3 = Neutral; 4 = Agree and 5 = Strongly Agree.

Response scale: 0 = No; 1 = Maybe; 2 = Yes.

Response scale: 0 = No; 1 = I don't know; 2 = Yes.

Response scale: 1 = Never; 2 = Poor; 3 = Average; 4 = Good; 5 = Excellent.

Response scale: 1 = Never; 2 = Rarely; 3 = Sometimes; 4 = Always.

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S2. Participants' responses on yes/no questions (n=434).

	Yes	**No**	**I do not know**	**Maybe**
Q8	46 (10.6%)	310 (71.4%)	78 (18.0%)	-
Q9	60 (13.8%)	276 (63.6%)	98 (22.6%)	-
Q15	324 (74.7%)	110 (25.3%)	-	-
Q18	140 (32.3%)	166 (38.2%)	-	128 (29.5%)
Q24	276 (63.6%)	158 (36.4%)	-	-

S3. Participants' responses on excellent/never questions (n=434).

	Never	Poor	Average	Good	Excellent
Q6	132 (30.4%)	134 (30.9%)	92 (21.2%)	42 (9.7)	34 (7.8%)
Q7	152 (35.0%)	112 (25.8%)	90 (20.7%)	38 (8.8)	42 (9.7%)

S4. Participants' responses on always/never questions (n=434).

	Never	Rarely	Sometimes	Always
Q11	26 (6.0%)	82 (18.9%)	222 (51.2%)	104 (24.0%)
Q12	18 (4.1%)	48 (11.1%)	152 (35.0%)	216 (49.8%)
Q13	60 (13.8%)	44 (10.1%)	192 (44.2%)	138 (31.8%)
Q14	72 (16.6%)	72 (16.6%)	160 (36.9%)	130 (30.0%)

S5. Participants' responses on agree/disagree questions (n=434).

	Strongly disagree	**Disagree**	**Neutral**	**Agree**	**Strongly agree**
Q10	44 (10.1%)	80 (18.4%)	210 (48.4%)	84 (19.4%)	16 (3.7%)
Q16	2 (0.5%)	0 (0.0%)	22 (5.1%)	84 (19.4%)	326 (75.1%)
Q19	8 (1.8%)	40 (9.2%)	50 (11.5%)	176 (40.6%)	160 (36.9%)
Q21	6 (1.4%)	12 (2.8%)	84 (19.4%)	116 (26.7%)	216 (49.8%)
Q23	4 (0.9%)	12 (2.8%)	104 (24.0%)	154 (35.5%)	160 (36.9%)