

COMMUNITY-RELATED ISSUES

The Knowledge of “Facts for Life”

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ABSTRACT Objective: “Facts for Life” is an essential tool for saving the lives of children. In this study we wanted to evaluate the knowledge of “Facts for Life” among Turkish women.

Design: This is a cross-sectional field study. We used 25 indicator questions to evaluate the knowledge of women in the following main subjects: safe motherhood, childhood immunization, childhood diarrhoea, children’s acute respiratory diseases, and household hygiene. We filled out printed questionnaires during face-to-face interviews. For each correct answer we gave 4 points, and the sum of the points was accepted as the knowledge score.

Setting: Bursa metropolitan area in Turkey.

Subjects: Married women between 15–44 years of age. We selected 1000 of them from the household cards of the health centers that were located at the Bursa metropolitan area by using a random selection method.

Results: Mean knowledge score was 72.0 ± 0.3 . About 3/5 had moderate, 1/5 good + very good, and 1/5 bad knowledge scores. Childhood diarrhoea was better known than acute respiratory diseases. The very well known “Facts for Life” were those concerning food and household hygiene.

Conclusion: Women’s knowledge about “Facts for Life” was at a moderate level. The knowledge level of older women was better than the younger. Some false beliefs still existed. Knowledge about ARI and diarrhoeal diseases in childhood were the least known facts.

KEYWORDS *Facts for Life, Turkey.*

Introduction

In the 1990s about 100 million children died worldwide due to malnutrition and diseases (UNICEF, 1993). They did not die because of a sudden flood or

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famine. There were no TV cameras standing ready for live broadcasts nor any world wide public anger or calls for immediate action because of these deaths. These children lost their lives, and most of the world was unaware of it. If we think about these deaths, we can clearly see that the causes are few and all preventable. But even in the 21st century, these diseases are still responsible for 2/3 of all child deaths, and half of all child malnutrition cases worldwide (UNICEF, 1993, 1995).

Unfortunately children have no political power, and governments do not consider their opinions. Therefore the protection of children's rights and futures is in the hands of their mothers, fathers, and legal guardians, but for many of them, this protection is not satisfactory. Even now, about 11 million children have been denied the right to live because of preventable illnesses (UNICEF, 2003).

Today there is sufficient information to protect and improve the health of the children. This information is called "Facts for Life" and has been prepared jointly by WHO (World Health Organization), UNICEF (United Nations Children Fund), UNESCO (United Nations Educational Scientific and Cultural Organization), UNFPA (United Nations Population Fund), UNDP (United Nations Development Programme), UNAIDS (The Joint United Nations Programme on HIV/AIDS), WFP (United Nations World Food Programme), and the World Bank (UNICEF & Ministry of Health Turkey, 1991; UNICEF & other organizations, 2002). "Facts for Life" is translated into 215 different languages, and about 15 million copies have been printed. But these efforts are not enough. It is important that every mother and father understand the "Facts for Life". Each year 1.7 million children die from diseases that could have been prevented with readily available vaccines. Respiratory infections killed some 2 million children under the age of five, and every day about 1400 women die because of pregnancy and childbirth complications (UNICEF & other organizations, 2002). These statistics revealed that "Facts for Life" information is not totally understood by the mankind.

In developing countries, the health of children is in the hands of mothers, because mothers have the closest contact with their children. Therefore the knowledge of "Facts for Life" among women is crucial. In Turkey, children under 5 years of age represent 17% of the population, and 21% of all deaths occur among those children (State Institute of Statistics, Turkey, 2000). We believe that if all Turkish mothers know at least the basic "Facts for Life", the infant mortality rate, which is about 40–50 per thousand, will be decreased (UNICEF & Ministry of Health, Turkey, 1991; UNICEF, 1992).

For many years, the Turkish Ministry of Health and international institutions have done their best to educate Turkish mothers in detail about "Facts for Life". Were these efforts successful or are there some enduring false beliefs? This question had not been directly evaluated yet. The point of our study was to start this evaluation process. Although our sample could not represent all Turkish women, it could give us an idea. Our research question was: What is

the knowledge level of women regarding “Facts for Life” messages and which fact(s) is (are) known properly and which are not?

Methods

This study was conducted in Bursa city center. Bursa is the fourth biggest city in Turkey and is located in the most socio-economically developed region of the country. It has a high immigration rate compared to other parts of Turkey. The study began on 1 October 2003 and ended on 1 October 2004. According to the year 2002's statistics, the city center's population was 1,338,586, and the population of women aged 15–44 was 545,817 (The Health Directorate of Bursa, 2002). In total, 1000 married women of childbearing age (15–44) were chosen from city health centers using the health centers' household cards and a simple random sampling method. These health centers are government health centers called “Saglik Ocagi”. The primary health care system of Turkey is maintained by these health centers, and there are about 6000 health centers in the whole country. Health centers' service is based on population, and the served population per center is about 5000 (for the rural area) – 10,000 (for the urban area). In Bursa city there are 50 health centers. Health centers give both preventive and curative services to their served population. However, preventive services, including immunization, health education, recording the health and demographic data, follow-up services for mother and children, etc., play a more important role. Each health center has household cards for every household in the served area. These cards are the main records of the health center. Information about the household members is found on these cards, and they are updated annually.

We chose 20 + 10 (for reserve) women from every health center, using the household cards. We used a table of random numbers for selection. For example, if there were 50 household cards in a health center, we only selected numbers between 01–50 from the table; if there were 125 household cards, we selected 20 numbers between 01–125, and so on. Then we found the household card with the selected number (in every health center household cards are numbered). If there was a woman meeting our criteria (aged 15–44 and married), we took her into our study; if not, we used the reserve numbers and continued the selection process. On some household cards there were two or more women meeting our criteria. In this circumstance we made the selection by drawing lots. After the selection, we prepared lists with names and addresses and visited our sample of women at their homes, together with the midwives who were in charge of their service. When a woman could not be found, we took a woman from the reserve list. Participation in our study was on a voluntary basis, and all women gave their verbal consent. Replacements for the 57 women not found at their addresses were taken from the reserve list.

We used 25 indicators to measure knowledge in the following five main subjects: safe motherhood, childhood diarrhoea, children's acute respiratory diseases, childhood immunization, food and household hygiene. The 25 indicators and five main subjects which we found important for our country regarding to our experiences, observations and health statistics, were gathered from the UNICEF's "Facts for Life" book. The authors filled out the printed questionnaires (see Appendix) during face-to-face interviews with these women. The authors read the open ended and multiple choice questions and marked the choices according to the answers given. In our questionnaire, three questions were open ended and the answers to these three questions were grouped later.

To reach a total score of 100, we gave 4 points for each correct answer and 0 points for each wrong one. The total knowledge score was calculated by adding up all the points. We evaluated the total knowledge score as follows: 0–64 bad knowledge; 68–76 moderate knowledge; 80–88 good knowledge; 92–100 very good knowledge. For calculations we combined the categories "good" and "very good". We did not check the validity and reliability of these questions, because they are accepted, and the facts are recommended worldwide. For data analysis, we used the PC and the SYSTAT program.

Results

The overview of the respondents in our study group is shown in Table 1. A younger group of women, mostly primary school educated, is the largest demographic group.

The distribution of women according to socio-demographic factors and knowledge levels is shown in Table 2. The mean knowledge score was 72.1 ± 0.3 . The percentage distribution of women regarding their knowledge levels was as follows: good + very good 22.1%; moderate 58.0%; bad 19.9%. On

Table 1. Distribution of women by age groups and educational levels

Age groups	Education (Completed)								Total <i>N</i>
	Illiterate		Primary		Secondary		High & more		
	<i>N</i>	%*	<i>n</i>	%*	<i>n</i>	%*	<i>n</i>	%*	
15–24	12	3.2	232	61.5	48	12.7	85	22.5	377
25–34	22	4.8	378	82.5	50	10.9	8	1.7	458
35–44	63	38.1	88	53.3	4	2.4	10	6.0	165
Total	97	9.7	698	69.8	102	10.2	103	10.3	1000

* Percentages in row.

Table 2. Distribution of women by knowledge levels and socio-demographic characteristics

Socio-demographic characteristics	Mean knowledge scores X ± SE	Knowledge level						Total N
		Bad		Moderate		Good + very good		
		n	%	n	%	n	%	
Age groups								
15–24	70.0 ± 0.6	93	(24.6)	215	(57.0)	69	(18.4)	377
25–34	72.9 ± 0.3	81	(17.6)	266	(58.2)	111	(24.2)	458
35–44	72.8 ± 0.7	25	(15.2)	99	(60.0)	41	(24.8)	165
				$\chi^2 = 10.92$ df = 4 $p < 0.05$				
Education (completed)								
Illiterate	71.6 ± 0.5	19	(19.7)	60	(62.2)	18	(18.1)	97
Primary School	72.2 ± 0.2	134	(19.2)	416	(59.5)	148	(21.3)	698
Secondary School	71.4 ± 0.6	24	(23.5)	53	(52.0)	25	(24.5)	102
High School and more	73.1 ± 0.6	22	(21.1)	51	(49.3)	30	(29.5)	103
				$\chi^2 = 5.34$ df = 6 $p > 0.05$				
Economic status								
Good	71.4 ± 0.2	52	(23.7)	122	(56.1)	44	(20.2)	218
Middle	72.3 ± 0.3	136	(19.2)	414	(58.3)	160	(22.5)	710
Poor	73.4 ± 0.6	11	(15.3)	44	(60.4)	17	(24.3)	72
				$\chi^2 = 3.42$ df = 4 $p > 0.05$				

average older women had a higher knowledge level. The relationship between age and knowledge levels was statistically significant ($\chi^2 = 10.92$, $df = 4$, $p < 0.05$).

Among high school or university educated women, the percentage who had good + very good knowledge levels was found to be higher than other groups. This relation was not statistically significant ($\chi^2 = 5.34$, $df = 6$, $p > 0.05$).

The evaluation of economic status was subjective and was prepared according to the opinions of the women. There was no statistically significant relation between economic status and knowledge levels ($\chi^2 = 3.42$, $df = 4$, $p > 0.05$).

Table 3 shows the women's opinions regarding to some "Facts for Life" messages. According to the answers of these women, the mean interval between two pregnancies should be at least 45 months for a safe motherhood; the mean age of the first pregnancy should be at least 20 years.

The average age for completing childhood immunization was stated as 16 months. Children with a common cold or mild diarrhoea should not have vaccinations at that time according to 76% of the women.

Almost all women (97%) considered diarrhoea as potentially fatal, and 81% of the study group said that they would give more liquid to their children if diarrhoea occurred. Except accepting dentition as a cause of diarrhoea (80%), all "Facts for Life" about childhood diarrhoea were known by 86% of women.

All "Facts for Life" concerning children's acute respiratory tract infections were known correctly by 56% of the study group. Most women (98%) knew the "Facts for Life" about food and household hygiene best.

Discussion

In today's world, about one million children lose their lives every month (UNICEF & other organizations, 2002). Millions of children suffer from malnutrition and many associated diseases. One of the main reasons for this situation is poverty; another is the lack of knowledge about child health (UNICEF & other organizations, 2002). Children are innocent victims of ignorance and illiteracy. The gap between developed and developing countries still exists and is increasing in mother and child health issues. In developed countries, only 2–5% of all deaths are among children under 5 years, but in developing countries, it is 40% (UNICEF, 1992, 1993, 1995). In developed countries, the causes of children's deaths are accidents, congenital malformations, genetic disorders or low birth weight. In developing countries, the causes are measles, pertussis, tetanus, malnutrition, pneumonia or diarrhea— all of which are preventable (UNICEF, 1992, 1993, 1995). "Facts for Life" is a useful tool to prevent those unnecessary deaths and to achieve the goals of the World Children's Summit. It is estimated that if every mother, father, or legal

guardian in the world had the "Facts for Life" information, 50% of all child deaths could be prevented (UNICEF & other organizations, 2002).

In our study, the knowledge level of women was found to be moderate according to our scoring method. The mean knowledge score was 72.1 ± 0.3 (mean \pm SE). This means that 18 of the 25 questions were answered correctly. We found a significant relationship between age and knowledge levels. Older women knew the "Facts for Life" messages better than the younger.

Women who participated in our study knew that the interval between two pregnancies is an important factor for a safe motherhood. Their opinion about the mean interval was longer than the essential minimum interval of 24 months. In Turkey, the actual median interval between two births is 37 months (Ministry of Health Turkey, 1999).

Infant deaths are two times higher for 16 years or younger pregnancies compared with 20 years and older (Robey *et al.*, 1992). According to our study group, the mean age for first pregnancy should be 20 years. This is one year less than the actual median age found for Turkey (Ministry of Health Turkey, 1999).

According to the relevant vaccination scheme, childhood immunization must be completed by 12 months of age. Only 40.1% of women knew this fact. In Turkey, about 80 children per day lose their lives due to diseases preventable by immunization, and only half of children aged 12–23 months completed the vaccination scheme before their first birthday (Ministry of Health Turkey, 1999). Awareness regarding this subject was insufficient among women in our study group.

In Turkey among children under 5 years of age, 12 million cases of diarrhoea are seen yearly; one in three was taken to a health facility, and 14% of these received oral rehydration therapy. It is estimated that 10,000 of them will die (Ministry of Health Turkey, 1999). In this study women's knowledge about the importance of childhood diarrhoea was found sufficient. However, they thought that dentition could cause diarrhoea; this is a false belief. Another incorrect assumption we pointed out was that diarrhoea could be cured by using anti-diarrhoeal drugs and 17.3% of women believed that these drugs could cure the condition.

Acute respiratory infections (ARI) are responsible for about 1/4 to 1/3 of all deaths in childhood. The prevalence is same in developed and developing countries, but the probability of dying from ARI is 70 times higher in developing countries where ignorance and incorrect assumptions are responsible for deaths (Garenne *et al.*, 1992). If the "Facts for Life" concerning ARI were known by parents, many of these deaths could be prevented. In this study 56% women knew all the facts of ARI.

Improved sanitation facilities and hygiene will decrease the incidence of diarrhoea by about 25% (Huttly, 1990; WHO, 1988). In this study almost all women answered questions regarding this subject correctly. The "Facts for Life" messages known best were about household and food hygiene.

Table 3. Women's opinions regarding some "Facts for Life"

Opinions about	% Women	Mean \pm SE
<i>Minimum interval between pregnancies for a safe motherhood</i>		45.9 \pm 0.3
< 12 months	1.0	
12–24 months	19.0	
> 24 months	80.0	
<i>Age of first pregnancy for a safe motherhood</i>		19.9 \pm 0.2
< 18	4.0	
18–20	78.0	
> 20	18.0	
<i>Age of completing primary childhood immunization</i>		16.9 \pm 0.5
Don't know	15.4	
3–6 months	1.2	
7–12 months	40.2	
13–24 months	28.2	
> 24 months	15.0	
<i>Acceptance of child's immunization in mild diarrhoea or common cold</i>		
Yes	13.5	
No	75.9	
Didn't know	10.6	
<i>Childhood diarrhoea</i>		
Diarrhoea is not dangerous	17.0	
Diarrhoea can be fatal	97.0	
Cause of diarrhoea is fecal contamination	87.0	
Dentition can cause diarrhoea	80.0	
Giving anti-diarrhoeal drugs is the best thing for a child with diarrhoea	17.3	
<i>Acute respiratory infections (ARI)</i>		
Breastfeeding prevents ARI	90.0	
ARI spreads easier in crowded rooms	98.0	
Breathing faster can be a sign of pneumonia	90.0	
Children with a common cold and cough should be kept warm	89.0	
Children with a common cold should have more liquid	85.0	
Children who are sleeping in smoky rooms can get ARI easier	97.0	
People coughing or suffering from a common cold should avoid being in touch with young children	99.0	

(continued overleaf)

Table 3. (continued)

Opinions about	% Women	Mean \pm SE
<i>Food and household hygiene</i>		
Washing hands prevents diseases	100.0	
Boiling water prevents diseases	100.0	
Keeping food clean and covered prevents diseases	100.0	
Burning or burying garbage prevents diseases	94.0	
Adequate cooking prevents diseases	99.0	

Conclusion

The knowledge of “Facts for Life” among Turkish women was found to be at a moderate level. Older women had better knowledge scores. We found no statistically significant difference between educational background and knowledge levels. “Facts for Life” about safe motherhood and hygiene were better known. The essential “Facts for Life” messages concerning ARI, diarrhoea and immunization are not properly known. More attention needs to be given to these subjects.

Some false beliefs like “dentition can cause diarrhoea” and “anti-diarrhoeal drugs can prevent diarrhoea” still exist.

Proven effective methods of adult learning should be used for disseminating the messages of “Facts for Life”. One of these methods could be the “Enter-educate” method; its supportive effects to classical education methods have been shown in many studies (Kincaid *et al.*, 1992). One characteristic of adult learning is learning through experiences (Sullivan, 1995). In our study older women got higher scores. We think that their experiences played a role, because the educational level of these women was not higher than the younger group. However, sometimes learning through experience is favorable, but in health matters, this type of learning should be avoided because of the unwanted consequences of mistakes. More attention should be given to educating younger women.

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Appendix

Questionnaire for evaluating the knowledge of “Facts for Life” among married Turkish Women (aged 15–44).

1. Woman’s Age:

- (1) 15–19 (2) 20–24 (3) 25–29 (4) 30–34 (5) 35–39 (6) 40–44

2. Woman’s Educational Level:

- (1) Illiterate (2) Primary School (3) Secondary School (4) High School and
more

3. Economic status according to her opinion:

- (1) Good (2) Moderate (3) Poor

4. How long should the minimal interval be between two pregnancies for a safe motherhood?

..... months

5. For a safe motherhood, what will be the minimum age for a first pregnancy?

..... years

6. Beside breastfeeding, at which age should solid foods be given to a child for healthy nutrition?

- (1) Before 2 months (2) 2–3 months (3) 4–5 months (4) 6–12 months (5) After 12 months (6) Don’t know

7. How frequently should a child younger than 3 years be fed?

- (1) Like adults (2) 5–6 times daily (3) Other (4) Don’t know

8. How frequently should a child in a convalescence period be fed?

- (1) Three times daily (2) Four–five times
daily (3) As much as she/
he wants (4) Other..... (5) Don’t know

(continued overleaf)

Appendix (continued)

 Questionnaire for evaluating the knowledge of “Facts for Life” among married Turkish Women (aged 15–44).

9. What is the age for completing primary childhood immunization?
 months

10. If a child has mild diarrhoea or a common cold is it appropriate to immunize him/her?
 (1) Yes (2) No (3) Don't know

11. If a child has diarrhoea, what is the best thing do do?
 (1) Not giving food or liquid for a few days (2) Giving food but avoiding drinking (3) Giving food and much liquid (4) Giving anti-diarrhoeal drugs (5) Don't know

12. Childhood diarrhoea is not dangerous
 (1) Correct (2) Not correct (3) Don't know

13. Childhood diarrhoea can be fatal
 (1) Correct (2) Not correct (3) Don't know

14. The cause of diarrhoea is fecal-oral contamination
 (1) Correct (2) Not correct (3) Don't know

15. Dentition can cause diarrhoea
 (1) Correct (2) Not correct (3) Don't know

16. Breastfeeding prevents ARI
 (1) Correct (2) Not correct (3) Don't know

 (continued overleaf)

Appendix (continued)

Questionnaire for evaluating the knowledge of “Facts for Life” among married Turkish Women (aged 15–44).

17. ARI can spread easier in crowded rooms

(1) Correct (2) Not correct (3) Don't know

18. Children with a common cold and cough should be kept warm

(1) Correct (2) Not correct (3) Don't know

19. Children with a common cold should have more liquid

(1) Correct (2) Not correct (3) Don't know

20. Children with common cold should not have more liquid

(1) Correct (2) Not correct (3) Don't know

21. Children who are sleeping in smoky rooms can get ARI more easily

(1) Correct (2) Not correct (3) Don't know

22. Breathing faster can be a sign of pneumonia

(1) Correct (2) Not correct (3) Don't know

23. People coughing or suffering from a common cold should avoid being in touch with young children

(1) Correct (2) Not correct (3) Don't know

24. Before preparing food, washing hands prevents diseases

(1) Correct (2) Not correct (3) Don't know

25. Boiling water prevents diseases

(1) Correct (2) Not correct (3) Don't know

(continued overleaf)

Appendix (continued)

 Questionnaire for evaluating the knowledge of “Facts for Life” among married Turkish Women (aged 15–44).

26. Keeping food covered and clean prevents diseases

(1) Correct (2) Not correct (3) Don't know

27. Burying or burning garbage prevents diseases

(1) Correct (2) Not correct (3) Don't know

28. Adequate cooking of foods prevents diseases

(1) Correct (2) Not correct (3) Don't know

For every correct answer for questions 4–28 give 4 points.

Sum of the points:

		Points	Knowledge Level	
	(1)	0–64	Bad	
	(2)	68–76	Moderate	
	(3)	80–88	Good	
	(4)	92–100	Very Good	
Question	Correct answer			
4	24 months		16	Correct
5	Age 18		17	Correct
6	4–5 months		18	Correct
7	5–6 times daily		19	Correct
8	As much as he/she wants		20	Not Correct
9	12 months		21	Correct
10	Correct		22	Correct
11	Giving food and more liquid		23	Correct
			24	Correct

(continued overleaf)

Appendix (continued)

Questionnaire for evaluating the knowledge of “Facts for Life” among married Turkish Women (aged 15–44).

12	Not correct	25	Correct
13	Correct	26	Correct
14	Correct	27	Correct
15	Not Correct	28	Correct
