

## An Examination of Family Hygiene Behaviors

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### Abstract

*The aim of this study was to examine family hygiene behaviors. The research data were obtained through the distribution of survey form prepared in conjunction with the "Hygiene Behavior Scale" to families living in the Ankara-Cebeci quarter and the collection of completed forms N: 900. This study is a supplemental type of research. While it was observed that participant families displayed the most positive hygiene behavior in house hygiene ( =3.62), this was followed by general hygiene ( =3.46), food hygiene ( =3.08), hand hygiene techniques ( =2.99) and personal hygiene ( =2.63), respectively. Significant relationships were observed between general hygiene, food hygiene, hand hygiene techniques and personal hygiene and sex; general hygiene, hand hygiene techniques and personal hygiene and education level; general hygiene, food hygiene, hand hygiene techniques and personal hygiene and spouse education level; general hygiene, house hygiene, food hygiene and hand hygiene techniques and income level ( $p < 0.05$ ).*

**Key Words:** Family, General hygiene, Hygiene, Hygiene behavior, Personal hygiene.

### 1. Introduction

Hygiene is within the field of health and is defined as the preservation and maintenance of basic health (Yetkin and Yiğitbaş, 2008:72). All the practices to be performed and all cleaning measures taken in order to protect oneself from harmful agents in the environment are included within the scope of the hygiene discipline (Kaya et al., 2006:179). Objectives of hygiene fall within the field of protective medicine and aim to maintain the health of not only society, but also of individuals, and are applied to all fields of life as a whole (Captain and Walbrol, 1986:68). Hygiene behavior involves hand hygiene, personal care, house hygiene and food hygiene (Stevenson et al., 2009). An individual's hygiene behavior may be affected by various factors such as his/her beliefs, values, habits, socio-economic and cultural features, knowledge level, personal choices, family characteristics, and the physical and social properties of the environment in which he or she works.

Therefore each individual's hygiene applications differ from each other; in other words, hygiene is specific to each individual (Akşit 1997, Görgülü 2000: 36).

Being healthy and maintaining one's life in a healthy manner is achieved through paying attention to one's individual care. Cleanliness enables an individual to be resistant to diseases, to enable his or her systems to function normally, and keep him or her away from harmful microorganisms and parasites. Therefore, the importance of personal hygiene should be recognized and hygiene behaviors should be transformed into habits. Above all, it is important to perform hygiene behaviors in the correct form and frequency in a way that will improve one's individual health. (Kalıncı, 2006:4). Often however, people's lack of relevant education and hygienic environment can lead to the neglect of personal needs.

Personal cleanliness behaviors such as body, mouth and teeth cleanliness, hand-foot care, and toilet habits have not been translated into conscious habits among the vast majority of the population. Skin infections that result from bacteria and fungus continue to exist, and many health problems associated with personal hygiene continue to maintain their significance (Urkay Yürekten, 2004:7). Relevant basic behaviors about health and hygiene are learned within the family (Karaoğlu and Pehlivan, 1997:391). Therefore, examining family hygiene behaviors is of great importance. However, both in our country and abroad, no study regarding family hygiene attitudes has been conducted. In general, studies are about the hygiene knowledge levels of families and women's hygiene applications (Güriş, 1991; Yiğit, 1991; Eşer and Khorshid, 1992; Demirbağ, 1998). Therefore, this research was planned and conducted with the aim of examining family hygiene behaviors and the effect of some demographic and socioeconomic variables on these behaviors.

## **2. Method**

Individuals living in Cebeci quarter within Ankara provincial borders constitute the population of the research. Instead of including the whole population, the sample receiving method was used. Within this framework, 9000 people, who were chosen by the randomized sampling method, and all of whom are married, constituted the sampling group.

The survey developed by R. Stevenson et al. (2009) was used as the data collecting method in order to measure hygiene behaviors. The survey used consists of two parts. In the first part, there are some questions intended to determine several personal characteristics of the participants (sex, age, marital status, education level, spouse education level, the number of members in the family, the duration of marriage, the number of children, income level, family life cycle, and hygiene information source); in the second part there is hygiene behavior scale consisting of general hygiene, house hygiene, food hygiene, hand hygiene techniques and personal hygiene that include 27 items. A frequency indicating rating was used for the scale performed in order to determine hygiene behavior and general hygiene, house hygiene, food hygiene and hand hygiene techniques: "never=1," "sometimes=2," "generally=3," and "always=4" scoring was used. For personal hygiene, since the items include negativity, reverse scoring was used (at "never=4" and "always=1" intervals). On the other hand, cleaning frequency was covered in scoring each item in the house hygiene category, while "always" affirmed that cleaning was performed at least three times within the last month, "generally" affirmed it was performed twice, and "sometimes" affirmed that it was performed once.

In the research in which data were analyzed with SPSS 18.0, the distribution of participants' personal traits was given with frequency and percentage values. Each item in the scale applied in order to determine participants' hygiene behaviors was described by calculating arithmetic mean and standard deviation values in addition to frequency and percentage distribution. Furthermore, to compare participants' hygiene behavior, the t test (for the variables including two groups) and variance analysis (for the variables including more than two groups) were applied.

In the survey developed by Stevenson et al. (2009) in order to measure hygiene behaviors and used in this research, validity and reliability analysis were performed. It was identified that the scale, consisting of items, was collected under 5 factors (aspect-sub scale) and Cronbach's Alpha values were calculated as 0.75 for general hygiene, 0.76 for house hygiene, 0.67 for food hygiene, 0.62 for hand hygiene techniques and 0.66 for personal hygiene. In this research, verifying factor analysis was conducted by using the varimax rotation and basic components method with the intention of confirming fundamental factors (aspects) of hygiene behavior scale. Applicability of factor analysis was controlled with the Barlett test and the sufficiency of sample volume was controlled with the Kaiser-Meyer-Olkin (KMO) value. Cronbach's Alpha values were calculated for the reliability coefficient of each factor.

## **3. Findings**

The distribution according to the personal traits of the participants is given in Table 1. Accordingly, 40.8 % of the individuals (f=367) are female, 59.2 % of them (f=533) are male and in age distribution 3.8 % (f=34) of them are within the "18-24" age group, 16.1% (f=145) of them are within the "26-33" age group, 17.9% are within the "34-41" age group, 19.4 % are within the "42-49" age group, 22.4 % are within the "50-58" age group and 20.4% are within the "59 and above" age group. 23.6% of those who participated in the study are illiterate; 62.1% are high school or university graduates; spouses of 23.0% are illiterate; spouses of 61.1% are high school or university graduates. 54.8% of the individuals work and 45.2% of them are retired or unemployed.

Families of 46.9 % of those who participated in the survey consist of “2” or “3” people, 34.3% of them consist of “4” people, and 18.8 % of them consist of “5” or “6” people. As to participants’ marriage duration: 1% of them “less than one year,” 24.8% of them are “between 1-10 years,” 19.8% of them are “between 11-20 years,” 54.4% of the mare “21 years and above.” 61.8% of participants have “1” or “2” child/children, 20.6% of them have “3” children, 7.3% of them have 4” or “5” children, 10.3% of them have no child. The income level of 3.8% who participated in the survey is 750 TL or below, 36.9% of them are between 751-1500 TL, 59.3% of them are 1501 TL and above.

When Table 2 is examined, it can be observed that the life periods of the families who participated in the survey can be divided as follows: the beginning period with 12.8% (begins with marriage and continues until the birth of the first child), the broadening period with 49.9% (begins with the birth of the first child and continues until the time when the child leaves home) and the shrinking period with 37.3% (begins when the child leaves home and continues).

Distribution of information sources on hygiene of those who participated in the survey is given in Table 3. Accordingly, it has been identified that the most important information sources on hygiene are: Family (65.0%), School (16.3 %), Books (8.6%) Television (6.7%), and Internet (5.1%), respectively.

Descriptive statistics regarding hygiene behaviors of the families, item factor loads and reliability coefficients are given in Table 4. According to the verifying factor analysis applied (Table 4), the Kaiser-Meyer-Olkin value manifested sample volume sufficiency (KMO=0.856) and Bartlett tests manifested factor analysis applicability ( $p < 0.001$ ). It was identified that the hygiene scale was collected under 5 factors (levels) that explain 73.62% of total variance and that the total item factor loads that constitutes the scale was above 0.40 value. Cronbach’s Alpha values indicating reliability coefficients of each factor were calculated as above 0.70 (Table 4).

According to factor averages from the descriptive statistics presented in Table 4, it has been observed that the most positive hygiene behavior displayed by the survey participants are in the house hygiene ( =3.62) aspect, general hygiene ( =3.46), food hygiene ( =3.08), hand hygiene techniques ( =2.99) and personal hygiene ( =2.63), respectively.

For the house hygiene aspect, it was identified that the most positive behavior displayed was “toilet cleaning within the last month” ( =3.86). 63.7 % of the participants in the survey stated that they “always” clean the toilet at least 3 times in the last month and 6.9% of them stated that they clean the toilet at least twice with the “generally” choice.

While it was observed that the most positive behavior reported for the general hygiene level was “washing hands after using toilet” ( =3.93) (“always” choice), the most negative behavior reported was “brushing teeth” (9.9% of the participants answered “never,” 31.2% of them answered “sometimes,” 46.6% answered “generally,” and 12.13% of them answered “always”). While it was observed that the most positive behavior reported was “cleaning chopping board in the kitchen with detergent or boiling water” ( =3.42) and the most negative behavior reported was “using a different chopping board for raw and cooked food” ( =2.45), for hand hygiene techniques the most positive behavior was “washing hands with soap” ( =3.71) and for personal hygiene it was “wearing the same skirt or pants for two consecutive days” ( =2.86).

T test and variance analysis results intended for comparing the participating families’ aspects of hygiene behaviors according to some variables regarding demographic properties are given in Table 5. According to the analysis results, a significant relationship was found between general hygiene, food hygiene, hand hygiene techniques, personal hygiene levels and education; general hygiene, food hygiene, hand hygiene techniques and personal hygiene and spouse education; and general hygiene, house hygiene, food hygiene and hand hygiene techniques and income level ( $p < 0.05$ ). No significant relationship was found between age groups and general hygiene, house hygiene, food hygiene, hand hygiene techniques and personal hygiene ( $p > 0.05$ ).

When the average values in Table 5 are examined, it is observed that the behaviors of women in general hygiene, food hygiene, hand hygiene techniques and personal hygiene aspects are more positive. Given that, university graduates have a higher average in general hygiene, hand hygiene techniques and personal hygiene techniques. On the other hand, it has been identified that those whose spouses are university graduates have a higher average in general hygiene, food hygiene, hand hygiene techniques and personal hygiene level; in other words, they display more positive behavior in these aspects.

Besides, it has been observed that the average of participants with low monthly income score lower than general hygiene, house hygiene, food hygiene and hand hygiene techniques.

In order to protect health, people primarily need to follow certain hygiene guidelines and rules. Examining hygiene behaviors within families provides professionals with the necessary research from which to design trainings and initiatives that will help the general public.

Hygiene habits are accumulated through the family and schools where communal life exists beginning from infancy (Çan et al, 2004). This study's results support the importance of family in acquiring these skills; according to the participant responses regarding their hygiene habits, family ranked first with 65.0% and is followed by school with 16.3%. Accordingly, in the study conducted by Yetkin and Yiğitbaş (2008), family ranks first as the information source about hygiene.

In our research, Cronbach's Alpha values that calculated reliability coefficients of each factor were calculated as above 0.70. This value is above the Cronbach's Alpha values of Stevenson et al. (2009).

While it was observed that the participants' most positive hygiene behavior was displayed in house hygiene ( $=3.62$ ); this was followed by general hygiene ( $=3.46$ ), food hygiene ( $=3.08$ ), hand hygiene techniques ( $=2.99$ ) and personal hygiene ( $=2.63$ ), respectively. The fact that families display positive behaviors regarding house hygiene illustrates that they are more conscious about this issue. Results that indicate that the lowest positive behavior is reported about personal hygiene suggest that this is an area for educational interventions.

With regard to house hygiene, it was identified that the most positive behavior was about "toilet cleaning within the last month" ( $=3.86$ ). 63.7% of the participants stated that toilets were cleaned at least four times within the last month by selecting the "always" choice. Since toilets are important sources in the emergence and spreading of a disease, toilet cleaning is of high importance (Şafak, Erkal, 2011). The fact that families reported toilet cleanliness as the most positive behavior indicates that they are aware of this information.

In our study, it was identified that the most positive behavior for general hygiene (with "always" response from 93.4% of the participants) was displayed about "washing hands after using the toilet" ( $=3.93$ ), the most negative behavior (with "never" response from 9.9%, "sometimes" response from 31.2%, "generally" response from 46.6% and "always" response from 12.13% of participants) was displayed about "brushing teeth" ( $=2.61$ ). Several studies report similar results. Arıkan and Özkan (2011) found that 100% of mothers, Kitiş and Bilgili (2011) reported that 91.2% of individuals, Karatay and Özvarış (2006) reported that 86.4% of women, Ünsal et al. found that 98.8% of individuals, and Thumma et al. found that 84.0% of individuals, wash their hands after using the toilet. The fact that the rate of hand washing behavior is also high in our research is a very important finding because hand cleanliness has been found to be the most efficient element in the control of microorganisms (Nenstl et al. 1997). The fact that the most negative behavior reported by families is about brushing teeth indicates that they should be educated in a way that will create lasting behavioral changes.

It was observed that the most positive behavior for food hygiene was displayed about "cleaning chopping board in the kitchen with detergent or boiling water" ( $=3.42$ ), the most negative behavior was displayed about "using different chopping boards for raw and cooked food" ( $=2.45$ ). Chopping boards used in the kitchen carry the highest risk of cross contamination. Particularly, after cutting raw food such as red meat and chicken with high potential of pathogen microorganism, the surface of the chopping board is contaminated with these pathogens. If cutting on the same board is followed by raw food such as lettuce, which will not be cooked, this can lead these pathogenic organisms to be transmitted into these foods. If the same cutting board is used, it should be of utmost importance to maintain cleanliness during food preparation (Hancıoğlu, Karapınar, 2000). The fact that families display the most negative behavior about "using the same chopping board for raw and cooked food" shows that they should be informed about this issue. On the other hand, the fact that they display the most positive behavior about "cleaning the chopping board in the kitchen with detergent and boiling water" shows that they attach importance to the cleanliness of the chopping boards.

In a study conducted by Worsfold and Griffith (1997) in England, it was found that 60% of the people used the same chopping board while preparing food in the kitchen for all cutting works and 25.0% of them did not clean the chopping board in a beneficial way. In the study, it was observed that they displayed the most positive behavior of "washing hands with soap" ( $=3.71$ ) for hand hygiene techniques aspect and "wearing the same skirt or pants for two consecutive days" for personal hygiene.

In daily life, hands are the parts of our body that have the most contact with the outer environment and therefore, which get the most dirty have the highest contact with microorganisms. Hand washing is the most efficient and easiest way to promote diseases prevention (Üner et al., 2009). Soap dissolves the dirt and removes the organisms inside the dirt (Şafak, Erkal, 2011). The fact that families report high rates of washing hands with soap with regard to hand hygiene shows that they attach importance to hand cleaning.

It is observed in the study that women's behaviors in general hygiene, food hygiene, hand hygiene techniques and personal hygiene are more positive. In the study conducted by Pepe et al. (2012), it was specified that women attached more importance to hygiene and self-care compared to men. In the study of Kaya et al. (2006), it was underlined that the scores of female students were statistically significantly higher than male students.

In this study, it has been identified that university graduates have a higher average in general hygiene, hand hygiene techniques and personal hygiene, as well as those whose spouses are university graduates. This result proves how important education is in displaying positive behaviors about hygiene.

Furthermore, this study revealed that the families with low monthly income have lower averages for general hygiene, house hygiene, food hygiene and hand hygiene techniques. It can be considered that as the income levels of the families increase, life styles of the individuals will be better, they will live in better conditions, they will obtain the conditions necessary for hygiene easier, and therefore, this will affect their hygiene behaviors in a positive way.

#### **4. Results and Recommendations**

- In the list of important information resources about hygiene stated by the participants, family comes first.
- The individuals who participated in this study displayed the most positive hygiene behavior for house hygiene ( $=3.62$ ).
- It was identified that the most positive behavior was displayed with regard to "toilet cleaning within the last month" ( $=3.86$ ). The most positive behavior displayed by families for general hygiene (with "always" answer of the 93.4% of the participants) was about "washing hands after toilet use" ( $=3.93$ ), and the most negative behavior was about "brushing teeth" ( $=2.61$ ).
- The most positive behavior displayed in food hygiene was about "cleaning the chopping board in the kitchen with detergent or boiling water" ( $=3.42$ ), the most negative behavior displayed was about "using different chopping boards for raw and cooked food" ( $=2.45$ ).
- A significant relationship was found between general hygiene, food hygiene, hand hygiene techniques and personal hygiene aspects and sex; general hygiene, hand hygiene techniques and personal hygiene and education level; general hygiene, food hygiene, hand hygiene techniques and personal hygiene and spouse education level; general hygiene, house hygiene, food hygiene and hand hygiene techniques and income level.
- According to the findings obtained at the end of the survey;
- Training programmer that will improve family hygiene behavior should be prepared and information on hygiene should be given in schools, public education centers, community health centers through media in order to promote positive hygiene behavior.
- A country wide comprehensive study about the relevant subject should be performed, the results should be shared, and studies aimed at identifying and addressing these deficiencies should be conducted.

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**Table 1: Distribution of the Families According to Personal Traits (n=900)**

Variable	Group	Figure (f)	Percent (%)
<b>Sex</b>	Female	367	40.8
	Male	533	59.2
<b>Age</b>	18-25	34	3.8
	26-33	145	16.1
	34-41	161	17.9
	42-49	175	19.4
	50-58	202	22.4
	59+	183	20.4
<b>Education Level</b>	Primary school or less	212	23.6
	Secondary School	129	14.3
	High School	327	36.3
	University	232	25.8
<b>Spouse Education Level</b>	Primary school or less	207	23.0
	Secondary School	143	15.9
	High School	292	32.4
	University	258	28.7
<b>Employment State</b>	Employment	493	54.8
	Unemployed	176	19.5
	Retired	231	25.7
<b>Number of the individuals in the family</b>	2.00	178	19.8
	3.00	244	27.1
	4.00	309	34.3
	5.00	122	13.6
	6.00	47	5.2
<b>Duration of marriage</b>	Less than a year	9	1.0
	1-5 years	122	13.6
	6-10 years	101	11.2
	11-15 years	83	9.2
	16-20 years	95	10.6
	21+ years	490	54.4
<b>Number of children</b>	None	93	10.3
	1	188	20.9
	2	368	40.9
	3	185	20.6
	4	44	4.9
	5+	22	2.4
<b>Monthly Income</b>	750 TL and below	34	3.8
	751-1500 TL	332	36.9
	1501 TL and above	534	59.3
<b>Total</b>		<b>900</b>	<b>100.0</b>

**Table 2: Distribution of Families According to Living Period**

Living Period	Figure (f)	Percent (%)
Beginning	115	12.8
Broadening	449	49.9
Shrinking	336	37.3
<b>Total</b>	<b>900</b>	<b>100.0</b>

**Table 3: Distribution of Families According to the Information Sources on Hygiene \***

Information Source	Figure (f)	Percent (%)
Family	585	65.0
School	147	16.3
Books	77	8.6
Television	60	6.7
Internet	46	5.1
All of them	266	29.6

\*It is possible to choose more than one.

**Table 4: Descriptive Statistics, Item Factor Load and Reliability Coefficient Regarding Families' Hygiene Behaviours**

Factors	Items	Never	Someti mes	Genera lly	Always	No answ er			Factor Loading	rage	Cronbach' s Alpha
		%	%	%	%	%	$\bar{x}$	s.s.			
General Hygiene	1. Washing hands during day	0.1	14.7	37.9	47.3	0.0	3.32	0.72	0.553	3.46	0.79
	2. Washing hands after arriving home	1.1	3.7	22.2	73.0	0.0	3.67	0.60	0.622		
	3. Washing hands after touching a pet or any animal	3.2	5.8	13.7	49.3	28.0	3.52	0.82	0.549		
	4. Washing hands before eating	0.2	3.7	17.6	75.7	2.9	3.74	0.53	0.408		
	5. Washing hands before cooking	0.1	4.2	12.6	62.7	20.4	3.73	0.56	0.549		
	6. Washing hands in case of touching face or body while cooking	6.1	14.8	18.4	40.6	20.1	3.17	0.99	0.565		
	7. Washing fruit and vegetables before eating	0.6	2.0	18.1	79.3	0.0	3.76	0.50	0.556		
	8. Washing hands after using toilet	0.2	0.2	6.1	93.4	0.0	3.93	0.29	0.615		
	9. Covering the water closet with tissue while using public toilet	9.8	13.3	18.3	40.7	17.9	3.09	1.06	0.478		
	10. Brushing teeth	9.9	31.2	46.6	12.3	0.0	2.61	0.83	0.436		
House Hygiene	11. Bathroom cleaning within the last month	0.2	2.8	9.6	58.4	29.0	3.78	0.52	0.676	3.62	0.76
	12. Toilet cleaning within the last month	0.2	1.3	6.9	63.7	27.9	3.86	0.42	0.725		
	13. Kitchen cleaning within the last month	0.2	3.6	10.6	57.1	28.6	3.74	0.56	0.696		
	14. Fridge cleaning within the last month	0.7	20.6	18.4	29.9	30.4	3.12	0.87	0.574		
Food Hygiene	15. Washing hands after touching raw food or cooked food.	4.9	15.0	26.2	43.2	10.7	3.21	0.91	0.625	3.08	0.75
	16. Washing kitchen utensils after touching raw food.	5.4	14.3	24.3	44.9	11.0	3.22	0.93	0.616		
	17. Using different chopping board for raw and cooked food	29.0	13.7	15.8	25.7	15.9	2.45	1.24	0.519		
	18. Cleaning chopping board in the kitchen with detergent or boiling water	1.7	10.3	23.6	49.8	14.7	3.42	0.78	0.403		
Hand Hygiene Techniques	19. Washing hands with boiling water	7.2	24.6	35.3	32.9	0.0	2.94	0.93	0.531	2.99	0.73
	20. Drying hands completely after washing	1.0	11.1	39.6	48.3	0.0	3.35	0.71	0.558		
	21. Washing hands with soap	.1	2.6	23.9	73.4	0.0	3.71	0.52	0.505		
	22. Sufficiency of hand washing time	1.3	32.4	36.6	29.7	0.0	2.95	0.82	0.537		
	23. Using antibacterial gel or towel in order clean hands	34.2	40.2	14.9	10.7	0.0	2.02	0.96	0.422		
Personal Hygiene	24. Wearing the same shirt or t-shirt for two consecutive days	36.8	29.0	6.4	27.8	0.0	2.75	1.22	0.741	2.63	0.80
	25. Wearing the same skirt or pants for two consecutive days	36.9	33.0	8.9	21.2	0.0	2.86	1.13	0.681		
	26. Wearing the same underwear for two consecutive days	29.6	17.8	4.2	48.4	0.0	2.28	1.33	0.627		
	27. Going out for two consecutive days without taking shower or having a bath	38.1	21.1	5.6	35.2	0.0	2.62	1.31	0.631		



**Table 5: Comparison of Hygiene Behaviors of Families According to Some Demographic Features**

Variable	Group	General hygiene	House Hygiene	Food Hygiene	Hand Hygiene Techniques	Personal Hygiene
		$\bar{X} \pm S_{\bar{x}}$	$\bar{X} \pm S_{\bar{x}}$	$\bar{X} \pm S_{\bar{x}}$	$\bar{X} \pm S_{\bar{x}}$	$\bar{X} \pm S_{\bar{x}}$
Sex	Female	3.66±0.015	3.63±0.022	3.37±0.031	3.13±0.022	2.71±.042
	Male	3.31±0.019	3.61±0.031	2.85±.036	2.90±0.021	2.51±.053
	P	<b>0.000***</b>	0.636	<b>0.000***</b>	<b>0.000***</b>	<b>0.002**</b>
Age	18-25	3.43±0.080	3.47±0.107	3.27±0.109	3.12±0.081	2.43±.175
	26-33	3.49±0.032	3.64±0.041	3.18±0.057	3.04±0.039	2.51±.086
	34-41	3.47±0.035	3.64±0.038	2.99±0.063	2.99±0.039	2.70±.078
	42-49	3.43±0.037	3.62±0.052	3.07±0.062	2.94±0.036	2.54±.078
	50-58	3.43±0.028	3.67±0.036	3.03±0.057	2.99±0.034	2.74±.066
	59+	3.47±0.030	3.59±0.042	3.10±0.057	2.99±0.033	2.65±.069
	P	0.751	0.452	0.207	0.334	0.127
Income Level	Primary school or less	3.38±0.032	3.60±0.042	3.00±0.056	2.93±0.033	2.62±0.059
	Secondary School	3.37±0.040	3.52±0.052	3.00±.071	2.87±0.041	2.48±0.064
	High School	3.47±0.022	3.68±0.027	3.08±.044	2.98±0.026	2.65±0.060
	University	3.55±0.026	3.62±0.036	3.18±.046	3.14±0.029	2.87±0.083
	P	<b>0.000***</b>	0.053	0.054	<b>0.000***</b>	<b>0.00**</b>
Spouse Education Level	Primary School or less	3.32±0.029	3.57±0.046	2.89±0.057	2.91±0.033	2.58±.062
	Secondary school	3.32±0.039	3.61±0.055	2.95±0.068	2.89±0.040	2.47±.062
	High School	3.50±0.025	3.66±0.031	3.07±0.047	2.98±0.028	2.70±.059
	University	3.59±0.022	3.63±0.030	3.28±0.026	3.13±0.026	2.89±.080
	P	<b>0.000***</b>	0.368	<b>0.000***</b>	<b>0.000***</b>	<b>0.000***</b>
Income Level	750 TL and below	3.25±0.097	3.37±0.173	3.09±0.150	2.78±0.081	2.85±0.143
	751-1500 TL	3.36±0.025	3.61±0.030	2.97±0.044	2.93±0.027	2.68±0.051
	1501 TL and above	3.53±0.017	3.65±0.023	3.14±0.033	3.05±0.019	2.58±0.044
	P	<b>0.000***</b>	<b>0.019*</b>	<b>0.006**</b>	<b>0.000***</b>	0.145

\*  $p < 0.05$     \*\*  $p < 0.01$     \*\*\*  $p < 0.001$