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AN EXPLORATORY STUDY ON THE PERCEPTION OF PEOPLE ABOUT PREVENTIVE HEALTH CARE IN TURKEY

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Abstract: Objective: The aim of this study is to explore how preventive health services are regarded and implemented by public and to explore the level of knowledge and behavior of people about immunization, early diagnosis and treatment of disease. Data and Methodology: In October, 2012 the 577 questionnaires have been analyzed. In this study, the demographic questions and 5 questions were asked in order to explore level of knowledge of people about PHS. Results: Questionnaires are divided into three groups according to the level of knowledge about PHS as informed (28.89%), semi informed (28.42%), ignorant (42.81%). While 50.2% of people do not regularly immunize any of the family members. On the contrary to 72.6% of people who do not visit a physician without feeling sick, only 27.4% of people visit a physician regularly. Conclusion: Results indicate that some of the demographic variables have significant influence on the level of knowledge and behavior of people about PHS. The results may have key importance on planning the education on heath awareness and leading them to consider taking action before an illness occurs.

Key Words: Preventive Health Services, Health Care, Turkish People

TOPLUMUN KORUYUCU SAĞLIK HİZMETLERİ KONUSUNDA BİLGİ ve YARARLANMA DÜZEYİNİN BELİRLENMESİ

Özet: Türkiye'nin 37 ilinde Ekim 2012'de basit rastgele örnekleme yöntemiyle uygulanan anket ile ülkemizde toplumun koruyucu sağlık hizmetleri konusunda bilgi ve hizmetlerden yararlanma düzeyinin ölçülmesi hedeflenmiş ve demografik verilerin sorularının yanı sıra 5 soru sorulmuştur. Geçerli anket sayısı toplam 577'dir. "*Koruyucu sağlık hizmetleri hakkında ne biliyorsunuz*" açık uçlu sorusuna verilen yanıtlar tasnif edilmiş ve verilen yanıtlara göre bilgisi yok, az bilgili ve bilgili şeklinde3 grupta toplanmıştır. Anketi yanıtlayan 577 kişinin % 42,81'sinin bilgisi yok, % 28,42'sinin az bilgili ve sadece % 28,89'unun bilgi sahibi olarak değerlendirilmesi oldukça dikkat çekicidir. Araştırmaya katılanların % 72,6'sı hasta olmadıkça hekime gitmediğini ifade etmiş, kontrol amaçlı düzenli hekime gidenlerin oranı % 27,4.tür. Koruyucu sağlık hizmetleri hakkında bilgi sahibi olma değişkeninin *Cinsiyet, Yaş, Medeni Durum,* değişkenine göre farklılık göstermediği, *Gelir* ve Eğitim Durumu değişkenlerine göre ise farklılık gösterdiği tespit edilmiştir. Hastalanmaksızın genel kontrol amaçlı hekime gitme durumu *cinsiyet, yaş ve gelir durumu* değişkenlerine göre farklılık gösterirken, *medeni durum* ve eğitim durumu değişkenlerine göre farklılık göstermemiştir. Bu araştırmanın sonuçları bazı demografik değişkenlerin toplumun koruyucu sağlık hizmetleri hakkında bilgi ve davranış düzeylerinde önemli etkiye sahip olduğunu göstermektedir. Bu veriler hastalanmaksızın önceden önlem almayı sağlamak için sağlık bilinci eğitimi planlama ve harekete geçme konusunda katkı verici bir öneme sahip olabilir.

Anahtar Kelimeler: Koruyucu Sağlık Hizmetleri, Sağlık Hizmeti, Türk Toplum

1. INTRODUCTION

According to 25th Article of Universal Declaration of Human Rights, the right of health is defined as a universal right, as it was stated in the following words: "everyone has a right to medical care both for their own and for their family, to own a suitable living standard which provides their health and includes necessary social services, to a safety in case of illness." In our country (Turkey) as well, in the 56th Article of the Constitution it is said: "the state is responsible for management to serve and plan, in purpose to make everyone's life maintained mentally and physically in health". In the Constitution of 1960, it had been defined as the duty of the state but in the Constitution of 1982, it has been said "is responsible to organize".

Original text of Article 25

i. Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing, and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control.

ii. Motherhood and childhood are entitled to special care and assistance. All children, whether born in or out of wedlock, shall enjoy the same social protection.

Today, health care is examined in three groups: categorized as preventive health services, treatment and rehabilitative health care.

In this study, the aim is twofold: to identify how preventive health services is perceived by Turkish people and to examine how Turkish society benefits from this type of health care.

1.1. Preventive health services and its significance

Preventive health services is a priority compared to the other two groups, which are treatment and rehabilitative health care. (Altay 2007) In terms of individuals, one's not being ill means state of well-being in social, physical and mental terms; being content with one's life, enjoying it, also being in a position to work and generate income. Socially, an ill person both means his/her withdrawal from business life though temporarily, which means lack of production of any goods or services by that individual, lack of contribution to the economy; and waste of time and effort of the people and institutions that should take care of this person. So this means versatile economic loss in social terms. However, it is more natural that individuals contribute to economic input for society, in the societies that health care is good and illnesses are less. In short, an individual's well-being encompasses aspects in terms of both physical -and mental-health. Both of these aspects are important in terms of the economic productivity of the individual. It stands to reason that a society with a strong, functional system of health care provision, including preventive health services, will correspond with a high level of economic productivity.

Although healthy individuals' social contribution to society is an indisputable fact, it is very difficult to make a guess on the amounts and costs of the damages that occur in the occurrence of an illness. Therefore, production of preventive health services aimed for the public health by public economy is inevitable. All services provided to

protect people from the occurrence of diseases are grouped under the preventive health services. Preventive health services can be divided into two groups as follows: (Akdur 2000).

For the environment: providing adequate and fresh water, health of housing, industrial health, fight with insects, fight with air pollution, fight with radiation and noise.

For the human: immunization, increasing personal health level (providing personal hygiene), early diagnosis and treatment, family planning, reforms in nourishment (sufficient and balanced nourishment), prevention by the help of medicine, health education.

During the Health Minister Dr. Refik Saydam's period (1925-1937), in the health policies provided by General Health Law (1930), there were principles which aimed at planning and programming health care, maintaining the physicians for preventive and treatment, preventing infectious diseases, and paying more attention to medicine schools. Health care was maintained "in a wide range with a single purpose" / "vertical organization" model according to these principles. Beginning with the places with a relatively high population, examination and treatment centers were established and physicians working at preventive health services were supported.

In the last 10 years, the Transformation of the Health Program has aimed at restoring the institutional position of basic health care into a structure that will be the center of control and authorization over other levels of health care. To improve the status of individuals and health care laborers, new innovations in this subject have been made as a starting point. The most prominent feature of the transformation of health services program is the attempt to provide access to health care program, to reduce deaths of mothers and babies, to give a priority to fight against risk factors of infectious and chronic illnesses, to improve people's ability to control their own health conditions and to place the approach of preventive medicine profession into the center of the system of health care (Website of Public Health Agency of Turkey. T.C. Ministry of Health.).

Previously, more likely health care served by non-profit and volunteer foundations today have been transformed into services that can be bought and sold at the market, provided by both public and private sectors. Although the private sector is targeting at the high profitable areas, state is expected to serve all sections of society by the effective non-profit utilization of resources.

Nowadays, health care services to the environment and human are being provided by public; recently it is possible to see private sector at the areas such as vaccination (especially the prevention of vaccines), prevention with medicine, reforming nourishment etc.

Vaccination at preventive health services has vital importance after those epidemic disasters that took place all over the world. Vaccination, in the 1920s, under the leadership of Dr. Refik Saydam, was a preventive health services that was carried out extensively and considered very important as an active state policy. Turkey and Yugoslavia, have been a model all over the world in this regard.

Factors that affect utilization of health services have been studied since the 1960s. In 1966, Feldstein in his published research, considered that utilization of health care is a function of both supply and demand and he defined effective factors as socio-economic, physical, cultural and demographic, each which have developed with the utilization of health care systems. (Feldstein 1973; Bertakis, Azari and etc 2000)

Anderson developed a causal model relating patient-days per thousand population and its components, hospital admission rates and average length of stay, to demographic characteristics of New Mexico counties. He studied the demonstration of the value of causal models in ascertaining the effects of demographic and socio-economic factors on the use of health care and in planning for future demands on the system. (Anderson 1973)

The most comprehensive research on the utilization of health care in Turkey, is the study "health care utilization survey in Turkey", which has been published by the Ministry of Health in 1992, and which was applied to 6672 families and 27408 persons. In that study, application of individuals to physicians, dentists and other medical staff were examined according to region and settlement, ages and sex, education level, type of insurance, family incomes, health and illness status. (Erdem, Pirinçi 2003; Bertakis, Azari and etc 2000).

Erdem and Pirinççi, in a study of exposure to the utilization in health care and factors that affect utilization, stated that many factors are effective, especially demographic features in utilization of health care, and determined the differences of utilization caused by variables like education level, geographic structure, health insurance, income level and transportation. They also indicate that the rate of applications to the physicians indicate an increase from East to West, from provinces to cities in Turkey. (Erdem, Prinçci 2003)

Bertakis et. al. studied the differences between genders on behalf of the utilization of health care. (Bertakis, Azari and etc 2000).

The studies mentioned above, health care has been considered as a whole and behaviors like going to physician, utilization of hospital are taken as criteria while measuring utilization of health care.

The need of preventive health services, which is considered the most important category of health care, has been predicted years before and has taken place into legal regulations of the countries. The debate is not the need of preventive health services nowadays, but it is which preventive health service will be applied by whom and how.

On one hand, the understanding of the social state and on the other hand ever- increasing cost of by whom the issue of preventive health services, which is mainly kept on the agenda.

Scott et.al. studied inadequate health literacy and lack of preventive health services use among Medicare enrollees and its cross relations. (Scott, Gazmararian and etc 2002).

Although there are number of studies about preventive health services that contain children, elderly and some specific diseases, studies on preventive health services for adolescent adults have been increasing, which may be stated as an advantage. Because this age group is the most

important group and in the position of others' financier due to country economy and labor market.

In recent years, in Germany, the argument whether "smokers and obese people have to pay more health insurance premium" has been debated and drawn public attention, in terms of the responsibilities of individuals. (Fritze 2011).

In this study, it is intended to expose that what society understands from preventive health services and whether demographic factors such as age, sex, income and education create any difference while transforming that understanding into action or not and preventive health services is restricted in two areas like visiting a physician for general control (check-up) and the most common vaccination. In future studies, more comprehensive studies for the whole preventive health services should be done.

This study discussed at 7th National Health and Hospital Administration Congress in 27-29 September 2013, in Konya.

2. DATA AND METHODOLOGY

2.1. The objective of the study

In comparison to treatment and rehabilitative care, the aim of this paper is to demonstrate how the preventive health services, which is superior in terms of low costs, is perceived (with reference to knowledge) and used (with reference to behavior) by the society.

2.2. The method and data collecting tool

The study was planned with basic random sampling method in 2012 October, to contain 81 cities across Turkey; the questionnaires were applied face to face by the 80 students who are currently attending courses on consumer behavior at School of Keşan Yusuf Çapraz Applied Science, Trakya University.

2.3. Coverage and constraints

Although preventive health services has number of application areas for the people and the environment, this paper has particularly focused on citizens' knowledge and behaviors on the subject of early diagnosis and treatment and general vaccination, excluding specific preventive health services according to environment, age and sex. The focus group in the study is the citizens which are above 18 and presumed owner of preventive health services consciousness.

In October 2012, in 81 cities of Turkey, to measure the level of utilization and knowledge of preventive health services among Turkish people, the survey with a total of 13 questions, one open-ended and the other 12 questions being multiple choice, has been applied on 1500 persons. Although 948 observations were completed by the use of demographic data, 577 surveys which had answer to the open-ended question "what do you understand from the concept preventive health services" is the coverage of this study. Study is limited with 37 cities as its last form and is in quality of representation to the regions excluding East Anatolia and Southeast Anatolia. Only 60.9% of valid observations could be used in analyze while the rate of the valid observations is 63.2%. Tolerance is calculated as 0.17% at 95% confidence interval in that study.

2.4. The variables of the study

There are two group of variables in the questionnaire, "knowledge and behavior about PHS" and demographic. Five demographic variables are sex, age, marital status, education status, and the income of the family. There are five open-ended and multiple choice questions for preventive health services knowledge and behavior. The open-ended question "what do you understand when it is said preventive health services" and "PHS whose duty is" was asked to determine the citizens knowledge about PHS. And for the preventive health services behavior, there are two multiple choice questions "do you visit a physician in purpose of general control (check-up) without being ill" and "are you and your family members regularly vaccinated".

2.5. Statistical techniques

Data has been analyzed by SPSS 13.0. In this study, to examine demographic data, frequency analysis was performed and to show the relation between preventive health services and demographic variables, a series of Chi Square analysis has been performed. Results have been evaluated at the 95% confidence interval.

3. RESULTS

The open-ended question "what you understand of preventive health services" has been answered by 577 (60.9%) out of 948 people. Obviously, none of the questions has been accidentally left blank by the respondents, because remaining questions have been answered by them. It shows that those who did not answer the questions had no idea about preventive health services. Since this paper is focused on preventive health services, the analyses have been conducted by these 577 questionnaires.

Out of 577 respondents 52.7% and 47.3% are women and men relatively; 52.2% are married, and 42.6% are single; 46.4% are in the age group of 18-29, and 20.8% are in the age group of 40-49; while 42.8% graduated from colleges, and only 3.8% of them are literate; out of 563 who responded the income question, 41.6% are in the group of 1501-2000 TL income, and 22.6% earn below 1000 TL.

Knowledge about PHS variable is gained by asking open-ended questions such as, "what do you understand of preventive health services" and according to the answers, questionnaires are categorized into three groups as "informed", "less-informed" and "non-informed" about Preventive Health Services. Those 42.7% have no information (35% "I have no idea", 7.7% with irrelevant answers) remaining 28.4% of them are less-informed and only 28.9% of them are informed. These results are remarkable.

To the question "do you regularly vaccinate" (variable vaccination) 20.2% replied, "Yes we all do", 29.6% "only our children", and 50.2% answered by saying, "no one".

To the question "visiting a physician with the purpose of a health check without getting ill" (variable visiting a physician) 72.6% answered as "no", 27.4% answered as "yes"

To the question "whose duty PHS is" 53.3% answered "State's", 15.1% answered "citizen's", 31.6% gave the answer "I have no idea".

A series of chi-square analysis have been performed to determine the association between demographic variables (income, education status, age, sex and marital status) and knowledge and behavior about PHS variables (knowledge about PHS, vaccination, visiting a physician and whose duty is).

3.1. Knowledge about PHS vs demographic variables

It may be seen that (Table 2-5), there is a significant relationship between knowledge about PHS and income ($\chi2$=9.897, df=4, p=0.042), and education ($\chi2$=23.796, df=6, p=0.001). However, age, sex and marital status have no effect on knowledge about PHS.

3.2. Vaccination and Demographic variables

It may clearly be seen that (Table 5-9) there is a significant relationship between vaccination and age (χ^2=39.952, df=8, p=0.000), marital status (χ^2=17.332, df=4, p=0.002), income (χ^2=14.828, df=4, p=0.005), and education (χ^2=18.088, df=6, p=0.006). However, only sex has no impact on vaccination.

Chi-square analysis has been practiced in order to determine whether there's a remarkable relationship between knowledge about PHS variable and vaccination. Since χ^2 3.280 (df=4, p=0.512) there is no significant relation between vaccination and knowledge about PHS.

3.3. Visiting a physician vs demographic variables

It is seen that (Table 10-13) sex (χ^2=6.350, df=1, p=0.012), age (χ^2=9.875, df=4, p=0.043), and income ($\chi2$=10.765, df=2, p=0.005) have a certain amount of effect on visiting a physician variable. However, marital status and education do not moderate visiting a physician variable.

Chi-square analysis has been practiced in order to determine whether there's a significant relationship between knowledge about PHS variable and visit a physician variable. χ^2=1.160 (df=2, p=0.560), hence, there is no association between visiting a physician and knowledge about PHS

3.4. Whose duty is vs demographic variables and knowledge about PHS

It is seen that (Table 14-19) there is a significant relationship between knowledge about PHS and sex (χ^2=9.411, df=2, p=0.009), marital status (χ^2=11.541, df=4, p=0.021), income (χ^2=11.352, df=4, p=0.023), education (χ^2=48.195, df=6, p=0.000) and knowledge about PHS (χ^2=60.522, df=4, p=0.000). However, age has no effect on whose duty is variable.

4. DISCUSSION

It is remarkable that, 39.1% out of 948 respondents left blank the open-ended question "what do you understand of preventive health services" which was asked in order to measure the knowledge of society about preventive health services. However, these respondents answered all other questions. It is assumed that participants did not miss these questions; on the contrary, they did not answer due to lack of opinions. Questionnaires are formed in 3 groups about PHS, categorized as "informed", "less-informed", and "not-informed" according to the answers. It is quite conspicuous that 42.8% of those who answer are "not-informed", 28.42% are "less-informed" and only 28.89% of them "informed". If we agreed on the possibility of

those who left the questions unanswered due to the anxiety of making mistake, saying something wrong, on the contrary of missing any question, as "not-informed" (meaning if we evaluate on 948 survey forms), "not-informed" ratio are increased to 65.19%, rate of ones that evaluated as "informed" are decreased to 17.5%. These statistics show that the most of the people have no information about PHS.

The rate of knowledge about PHS is increased as the level of income and education increases. This result is parallel to the results in developed countries where education level is high, and where general health care systems are also high. Records of the free vaccinations and ones that are obligatory for children are followed by ministry of health in our country. According to data of 2011 health statistic annual published by Ministry of Health, average of rate of obligatory childhood era vaccination in Turkey is 98%. However, some vaccinations must be repeated in time. In this study, 49.9% of neither themselves nor the family members did regular vaccinations, but 20.2% of them and family members did vaccinations. But in this study it is seen that the rate of family members' vaccination is increased as the level of education and income increases.

Behavior of visit a physician in purpose of general control without being ill is significant for early diagnosis and treatment of illnesses, especially ones that are insidious, lack of symptoms or very expensive or improbable to threat. As expected, a logical relation between visiting a physician in purpose of a health check without being ill and age, sex and income variables have been determined. In this study, a logical relationship between education and vaccination has been determined, but a logical relation between visiting a physician with the purpose of a health check without being ill and education has not been determined. However, the rate of visiting a physician in purpose of general control is increased as income level increases.

When the fact that education and PHS variables are not effect visiting a physician in purpose of general control behavior and taken into account, it is assumed that behavior might be acted owing to both vital worries and other reasons. Recently, it is considerable that media's health programs can be effective on this behavior. Since, it's beneficial to make studies about this matter, we prefer to focus on what the routers and effects of these routers are.

In our country, specialization that is made due to globalization and shrinking of the state is observed at transformation programs concerning health. Transformation Programme in Health which determines one of its aims is as follows: to make it priority to fight the risks of infectious illnesses, to develop individuals in their abilities to control their own health situations, and place the approach of preventive medicine

To the center of health, also aims to give responsibilities to individuals themselves. In this alteration process, if it's considered that the people holds the state linear responsible for preventive health services (53.3%) it is the sign that the state won't withdraw these cares easily. It is seen that the expectations from the state of singles compared with married ones and highly educated people compared with lower educated ones, are higher in the matter of PHS. It is possible to say that

the citizens with low level of education and low level of income have no idea about expectations from the state.

As a result, it is seen that some demographic variables are effective on having information and application about PHS. In sense of Transformation Programme in Health, it is seen that age, sex, marital status, income and education variables are effective and there is a benefit in planning these studies according to such data. Similarly, factors like age, sex and income must be taken into account in order to apply and plan the activities for society's visiting a physician in purpose of general control. Similarly, it is necessary to do educational studies for making society conscious about PHS beginning from childhood.

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Table 1: Demographic Variables

		Freq.	Percent			Freq.	Percent
Gender	Woman	304	52.69%	Education	Literate	22	3.81%
	Man	273	47.31%		Elementary	163	28.25%
	18-29	268	46.45%		High School	145	25.13%
Age	30-39	99	17.16%		Bachelor's degree or above	247	42.81%
	40-49	120	20.80%				
	50-59	59	10.23%	Income (TL/mo)	0-1000	127	22.56%
	≥ 60	31	5.37%		1001-1500	111	19.72%
					1501-2000	234	41.56%
Marital Status	Married	301	52.17%		≥ 2001	91	16.16%
	Single	246	42.63%				
	Divorced / widow(er)	30	5.20%				

Table 2: Knowledge about PHS vs. Demographic variables

Variable	Chi-Square	df	p-value
Gender	3.400	2	0.183
Age	3.296	8	0.914
Marital Status	2.931	4	0.569
Income	9.897	4	0.042 *
Education	23.796	6	0.001 *

* Chi-square statistic is significant at 95% level

Table 3: Knowledge about PHS vs. Income (TL/mo.)

Knowledge about PHS		0-1500	1500-3000	≥3000	Total
Have no idea	Observed	109	104	31	244
	Expected	103	101	39	244
Few info	Observed	62	75	24	161
	Expected	68	67	26	161
Knowing	Observed	67	55	36	158
	Expected	67	66	26	158
Total		238	234	91	563

Table 4: Knowledge about PHS vs. Education

Knowledge about PHS		Literate	Elementary	High School	Bachelor's degree or above	Total
Have no idea	Observed	15	87	64	81	247
	Expected	9	70	62	106	247
Few info	Observed	4	39	41	80	164
	Expected	6	46	41	70	164
Knowing	Observed	3	37	40	86	166
	Expected	6	47	42	71	166
Total		22	163	145	247	577

Table 5: Vaccination vs. Demographic variables

Variable	Chi-Square	df	p-value
Gender	1.319	2	0.517
Age	39.952	8	0.000*
Marital Status	17.332	4	0.002*
Income	14.828	4	0.005*
Education	18.088	6	0.006*

* Chi-square statistic is significant at 95% level

Table 6: Vaccination vs. Age

Vaccination		18-29	30-39	40-49	50-59	≥60	Total
Yes. all of us	Observed	58	27	23	4	4	116
	Expected	54	20	24	12	6	116
Only children	Observed	70	44	37	16	3	170
	Expected	79	29	35	17	9	170
No one	Observed	139	27	59	39	24	288
	Expected	134	49	60	30	16	288
Total		267	98	119	59	31	574

Table 7: Vaccination vs. Marital Status

Vaccination		Married	Single	Divorced/ widow(er)	Total
Yes. all of us	Observed	59	53	4	116
	Expected	60	50	6	116
Only children	Observed	109	56	5	170
	Expected	89	73	9	170
No one	Observed	131	136	21	288
	Expected	150	123	15	288
Total		299	245	30	574

Table 8: Vaccination vs. Income group (TL/mo

Vaccination		0-1500	1500-3000	≥3000	Total
Yes. all of us	Observed	37	49	27	113
	Expected	47	47	18	113
Only children	Observed	61	75	30	166
	Expected	70	69	27	166
No one	Observed	137	110	34	281
	Expected	118	117	46	281
Total		235	234	91	560

Table 9: Vaccination vs. Education

Vaccination		Literate	Elementary	High School	Bachelor's degree or above	Total
Yes. all of us	Observed	1	28	28	59	116
	Expected	4	33	29	50	116
Only children	Observed	4	45	45	76	170
	Expected	7	48	43	73	170
No one	Observed	17	89	72	110	288
	Expected	11	81	73	123	288
Total		22	162	145	245	574

Table 10: Visiting a physician vs. Demographic variables

Variable	Chi-Square	df	p-value
Gender	6.350	1	0.012 *
Age	9.875	4	0.043 *
Marital Status	2.982	2	0.225
Income	10.765	2	0.005 *
Education	1.566	3	0.667

* Chi-square statistic is significant at 95% level

Table 11: Visiting a physician vs. Gender

Visiting a physician		Woman	Man	Total
No	Observed	209	205	414
	Expected	217	197	414
Yes	Observed	90	66	156
	Expected	82	74	156
Total		299	271	570

Table 12: Visiting a physician vs. Age

Visiting a physician		18-29	30-39	40-49	50-59	≥60	Total
No	Observed	198	72	85	34	25	414
	Expected	191	72	86	43	22	414
Yes	Observed	65	27	34	25	5	156
	Expected	72	27	33	16	8	156
Total		263	99	119	59	30	570

Table 13: Visiting a physician vs. Income Group (TL/mo)

Visiting a physician		0-1500	1500-3000	≥3000	Total
No	Observed	180	171	54	405
	Expected	170	169	66	405
Yes	Observed	53	61	37	151
	Expected	63	63	25	151
Total		233	232	91	556

Table 14: Whose duty is vs. Demographic variables

Variable	Chi-Square	df	p-value
Gender	9.411	2	0.009 *
Age	8.758	8	0.363
Marital Status	11.541	4	0.021 *
Income	11.352	4	0.023 *
Education	48.195	6	0.000 *
Knowledge about PHS	60.522	4	0.000 *

* Chi-square statistic is significant at 95% level

Table 15: Whose duty is vs. Gender

Whose duty is		Woman	Man	Total
Citizen's duty	Observed	35	50	85
	Expected	45	40	85
State's duty	Observed	153	147	300
	Expected	158	142	300
Have no idea	Observed	108	70	178
	Expected	94	84	178
Total		296	267	563

Table 16: Whose duty is vs. Marital Status

Whose duty is		Married	Single	Divorced/ widow(er)	Total
Citizen's duty	Observed	50	34	1	85
	Expected	43	37	5	85
State's duty	Observed	138	146	16	300
	Expected	153	131	16	300
Have no idea	Observed	100	65	13	178
	Expected	91	77	9	178
Total		288	245	30	563

Table 17: Whose duty is vs. Income Group (TL/mo)

Whose duty is		0-1500	1500-3000	≥3000	Total
Citizen's duty	Observed	36	26	20	82
	Expected	35	34	13	82
State's duty	Observed	114	129	49	292
	Expected	125	121	47	292
Have no idea	Observed	85	72	19	176
	Expected	75	73	28	176
Total		235	227	88	550

Table 18: Whose duty is vs. Education

Whose duty is		Literate	Elementary	High School	Bachelor's degree or above	Total
Citizen's duty	Observed	0	27	21	37	85
	Expected	3	24	22	36	85
State's duty	Observed	7	62	73	158	300
	Expected	12	84	76	128	300
Have no idea	Observed	15	69	49	45	178
	Expected	7	50	45	76	178
Total		22	158	143	240	563

Table 19: Knowledge about PHS vs. Whose duty is

		Whose duty is			
Knowledge about PHS		Citizen's duty	State's duty	Have no idea	Total
Have no idea	Observed	29	99	116	244
	Expected	37	130	77	244
Few info	Observed	38	92	31	161
	Expected	24	86	51	161
Knowing	Observed	18	109	31	158
	Expected	24	84	50	158
Total		85	300	178	563