

Evaluating the relationship between family role performance levels and health perceptions of individuals: a cross-sectional study in primary care

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ABSTRACT. The aim of this study is to examine the relationship between family role performance levels and health perceptions of individuals. This cross-sectional study was conducted with 438 participants who applied to four Family Health Centers between 18 July 2020 and 18 November 2020. The data were collected using Personal Information Form, Family Role Performance Scale, and Perception of Health Scale. ANOVA, independent samples t test and regression test were used for statistics calculations. Ethics Committee approval and institutional permissions were obtained to conduct the study. Scale mean scores of the participants were 30.92 ± 6.41 for Family Role Performance Scale and 48.35 ± 7.73 for Perception of Health Scale. As a result of simple linear regression analysis, a significant correlation was found between Family Role Performance and Perception of Health Scale. According to regression analysis, it was determined that family role performance affected health perception at the rate of 15.1%. In this study, it was determined that as family role performance increased, the level of health perception also increased, and there was a correlation between family role performance and health perception. Family role performances and health perception for all participants were at a moderate level.

Keywords: family roles; health; health perception.

Received on May8, 2021.

Accepted on June11, 2021

Introduction

Family is the most fundamental unit that has to adopt to changes in social structure and plays a role in shaping and changing the society. Various roles have been attributed to family members by society. Each member in family has a role and the other members have expectations from that member, meaning that there is an interaction within the family. Each variable affecting a member of family also affects other members of family directly or indirectly (Chen et al., 2014; Steinbach & Hank, 2015). There are definitions of family role performance focused on dynamic structures such as tasks within the family and interpersonal relations. Upon the changing of social structure, transition from traditional family structure to modern family structure may lead family roles to change and women and men to undertake roles different than the roles they perceive. Family members can have difficulty in adapting to these changes. Therefore, this change process can be reflected on family functions as family members undertake new roles other than the roles they perceive (Chen et al., 2014; Fuwa, 2014; Mahne & Huxhold, 2015). Issues arising from family role distributions or non-fulfillment of roles undertaken by family members can affect health of family members and their health perceptions (Titze, Schenck, Logoz, & Lehmkuhl, 2014; Mahne & Huxhold, 2015).

According to the World Health Organization, health is defined not only as the absence of illness or disability, but also as a state of complete physical, mental and social well-being. According to this definition, health that we are very familiar with is now a social phenomenon (WHO, 2005; Sartorius, 2006). Individual health perception is one of the major factors affecting the decision about exhibiting health protective behaviors. If individuals decide that they have a good health, they are likely to continue their current lifestyle. It is known that individuals who correctly evaluate their own health will encounter less problems in their family and social life. Today, perception of health is an important determinant of health outcomes (Ferrer & Klein, 2015; Desgraz, Collet, Rodondi, Cornuz, & Clair, 2017; Zahrt & Crum, 2017).

The individual's perception of health is directly associated with the attainment and maintenance of healthy lifestyle behaviors and the process of promoting their health. While providing care, education, counseling and support services to families or individuals, family health nurses should evaluate the individual's family role performances and health perceptions and undertake the role of guidance in this process. There is no study in the literature that examines individuals' family role performance and health perception. This study was conducted to evaluate the relationship between individuals' family role performances and perceptions of health, and it is thought to contribute to the related literature. Within the framework of this general purpose, the answers to following questions were sought.

1. How are the family role performances levels of individuals?
2. How are the health perception levels of individuals?
3. Is there any difference between individuals' socio-demographic characteristics and their family role performance and health perception levels?

Material and methods

Population and sample of the study

This cross-sectional study was conducted with individuals who applied to randomly selected Kurtuluş, Fevziçakmak, Selimiye and Elife Gök Family Health Centers (FHCs) in the city of Osmaniye between 18 July 2020 and 18 November 2020. The population of the study consisted of 39.477 individuals over the age of 18 enrolled in these FHCs. The sample of the study was calculated using the method of sampling with known population. The sample size was determined as minimum 381 individuals at confidence interval of 95% and significance level of 5%, and the study was conducted with 438 participants.

Inclusion criteria;

- Being over the age of 18,
- Having no communication problem,
- Having no psychiatric disease.

Data collection tools

The data of the study were collected by using 'Personal Information Form', 'Family Role Performance Scale', and 'Perception of Health Scale'. 'Personal Information Form' involves eight questions about the participants' age, gender, marital status, education, employment and income status, family type and presence of chronic disease.

'Family Role Performance Scale (FRPS)': Chen et al. (2014) developed the scale to evaluate the role and relationship-oriented performances of family members in the family and provide a conceptual structure for family role performance. The scale, which is a 5-point Likert scale (1 = not suitable at all, 5 = completely appropriate), consists of 8 items. The scale has two subscales: 'task accomplishment and relationship-related performance'. Turkish validity and reliability study of the scale was conducted by Akin and Uğur (2014). Cronbach's alpha values of the 'task accomplishment and relationship-related performance' subscales of the scale were calculated as 0.70 and 0.91, respectively. In this study, Cronbach's alpha value was found as 0.70 for the overall scale.

'Perception of Health Scale (PHS)': The scale developed by Diamond, Becker, Arenson, Chambers and Rosenthal (2007) evaluates the perception of health. In Turkey, its validity and reliability study was conducted by Kadioğlu and Yıldız (2012). The scale is rated in a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree) and consists of 15 items. The scale has four subscales (Importance of Health, Self-awareness, Certainty, Center of control). While items 1, 5, 9, 11, and 14 of the scale express a positive attitude, items 2, 3, 4, 6, 7, 8, 12, 13 and 15 express a negative attitude. The lowest and highest scores of the scale are 15 and 75, respectively. In the original study of the scale, the Cronbach's alpha value was found to be 0.77 for overall scale. In this study, its Cronbach's alpha value was calculated as 0.77.

Data collection

The data were collected by the researchers between 18 July 2020 and 18 November 2020 using face-to-face interview method and it took approximately 10 minutes to complete the data (Social distance, hygiene and wearing masks were attached importance in order to prevent the risk of virus transmission due to pandemic).

Data analysis

SPSS 24.0 (Statistical Packet for Social Sciences for Windows) statistical software package was used for the analysis of the findings obtained in the study. The data were evaluated using the descriptive statistical methods (frequency, percentage, mean, standard deviation) and Kolmogorov-Smirnov test was used to assess the compatibility of the variables to the normal distribution. ANOVA, independent samples t test and regression test were used for statistics calculations. For the reliability of the scales, the Cronbach's alpha coefficient was calculated and the significance was evaluated at the level of $p < 0.05$.

Ethical considerations

Ethics Committee approval and institutional permissions were obtained to conduct the study. In addition, before the data collection, the individuals were informed about the purpose of the study and their written consents were obtained. The research was planned and conducted in accordance with the Principles of Declaration of Helsinki.

Findings

The average age of the participants was 35.94 ± 12.67 . It was determined that 31.5% of the participants were in the age range of 26-35 years, 56.2% were female, 68.9% were married, 40.4% were high school graduates, 60.0% were unemployed, 51.8% had an income equal to their expenses, 64.8% had an extended family, and 21.9% had a chronic disease (Table 1).

Table 1. Distribution of FRPS Total and Subscale Mean Scores of the Participants According to their Socio-demographic Characteristics (n = 438).

		FRPS Subscales			
		n (%)	Task accomplishment	Relationship-related performance	Total FRPS
Age	18-25 years	108 (24.7)	14.31 ± 3.50	16.90 ± 3.48	31.22 ± 6.16
	26-35 years	138 (31.5)	14.78 ± 3.22	17.02 ± 3.88	30.81 ± 6.89
	36-45 years	87 (19.9)	14.22 ± 3.39	16.34 ± 3.85	30.57 ± 6.56
	≥ 46 years	105 (24.0)	14.12 ± 3.29	16.94 ± 3.42	31.06 ± 5.93
	*Significance		$p = 0.623$	$p = 0.654$	$p = 0.900$
Gender	Female	246 (56.2)	14.23 ± 3.28	17.17 ± 4.39	31.88 ± 6.45
	Male	192 (43.8)	13.89 ± 3.40	16.41 ± 3.67	29.81 ± 6.31
	*Significance		$p = 0.291$	$p = 0.054$	$p = 0.043$
Marital status	Married	302 (68.9)	14.36 ± 3.30	17.05 ± 3.36	31.42 ± 5.92
	Single	136 (31.1)	13.47 ± 3.35	16.36 ± 5.38	29.83 ± 7.28
	*Significance		$p = 0.009$	$p = 0.101$	$p = 0.016$
Education level	Illiterate	23 (5.3)	13.65 ± 3.77	15.04 ± 4.35	28.69 ± 7.55
	Literate	50 (11.4)	14.36 ± 3.70	16.42 ± 3.95	30.78 ± 6.94
	Elementary school	95 (21.7)	14.07 ± 3.32	16.89 ± 3.44	30.96 ± 5.98
	High school	177 (40.4)	13.99 ± 3.28	16.79 ± 3.39	30.79 ± 5.89
	$\geq$ undergraduate	93 (21.2)	14.23 ± 3.19	17.53 ± 5.62	31.77 ± 7.12
	*Significance		$p = 0.903$	$p = 0.105$	$p = 0.341$
Working status	Yes	175 (40.0)	14.16 ± 3.26	16.61 ± 4.82	30.77 ± 6.77
	No	263 (60.0)	14.03 ± 3.38	16.99 ± 3.55	31.03 ± 6.16
	*Significance		$p = 0.708$	$p = 0.342$	$p = 0.679$
Income status	Income less than expense	158 (36.1)	13.82 ± 3.37	16.79 ± 3.64	30.62 ± 6.16
	Income equal to expenses	227 (51.8)	14.16 ± 3.40	16.86 ± 4.60	31.02 ± 6.85
	Income more than expenses	53 (12.1)	14.54 ± 2.88	16.86 ± 3.11	31.41 ± 5.07
	*Significance		$p = 0.348$	$p = 0.987$	$p = 0.696$
Family type	Nuclear family	154 (35.2)	13.41 ± 3.36	16.20 ± 3.32	29.64 ± 7.31
	Extended family	284 (64.8)	14.43 ± 3.27	17.18 ± 3.22	31.62 ± 5.76
	*Significance		$p = 0.003$	$p = 0.016$	$p = 0.002$
Presence of chronic disease	Yes	96 (21.9)	14.17 ± 3.50	16.83 ± 3.92	31.01 ± 6.64
	No	342 (78.1)	14.06 ± 3.29	16.84 ± 4.16	30.90 ± 6.35
	*Significance		$p = 0.765$	$p = 0.985$	$p = 0.885$

PHS= Perception of Health Scale, FRPS= Family Role Performance Scale. *Independent samples t test, *ANOVA test.

A statistically significant correlation was found between individuals' marital status, gender and family type and overall FRPS, between marital status and family type and 'task accomplishment' subscale, and between family type and 'relationship-related performance' subscales ($p < 0.05$) (Table 1). A statistically significant correlation was found between the participants' age, marital status, education, income status and family type and the 'positive health perception', between working status and 'negative health perception', and between marital status, education, family type and overall PHS ($p < 0.05$) (Table 2).

Table 2. Distribution of Total PHS and Positive-Negative Health Perception Scores of the Participants According to Their Socio-demographic Characteristics (n = 438).

		Positive health perception	Negative health perception	Total PHS
Age	18-25 years	22.37 $\pm$ 3.70	24.09 $\pm$ 7.02	47.20 $\pm$ 8.32
	26-35 years	22.48 $\pm$ 3.69	25.19 $\pm$ 7.33	47.73 $\pm$ 6.20
	36-45 years	23.95 $\pm$ 4.06	24.36 $\pm$ 6.77	48.61 $\pm$ 6.80
	$\geq$ 46 years	24.51 $\pm$ 3.58	25.36 $\pm$ 5.67	49.34 $\pm$ 8.93
	[†] Significance	p = 0.001	p = 0.437	p = 0.175
Gender	Female	23.29 $\pm$ 3.76	24.54 $\pm$ 6.47	47.93 $\pm$ 7.64
	Male	23.58 $\pm$ 4.04	25.13 $\pm$ 7.14	48.88 $\pm$ 7.83
	[‡] Significance	p = 0.430	p = 0.367	p = 0.207
Marital status	Married	24.30 $\pm$ 3.64	24.50 $\pm$ 6.71	49.75 $\pm$ 7.24
	Single	23.02 $\pm$ 3.92	24.44 $\pm$ 6.89	47.72 $\pm$ 7.87
	[‡] Significance	p = 0.001	p = 0.184	p = 0.011
Education level	Illiterate	22.28 $\pm$ 3.82	25.13 $\pm$ 7.03	45.62 $\pm$ 6.50
	Literate	22.44 $\pm$ 3.85	23.18 $\pm$ 6.55	46.49 $\pm$ 6.32
	Elementary school	23.13 $\pm$ 4.33	24.21 $\pm$ 6.05	49.01 $\pm$ 7.53
	High school	23.88 $\pm$ 3.92	24.95 $\pm$ 6.72	49.39 $\pm$ 13.38
	$\geq$ Undergraduate	24.30 $\pm$ 3.44	25.89 $\pm$ 6.97	50.19 $\pm$ 7.56
	[†] Significance	p = 0.001	p = 0.189	p = 0.001
Working status	Yes	23.37 $\pm$ 3.97	24.12 $\pm$ 6.87	49.17 $\pm$ 7.68
	No	23.45 $\pm$ 3.83	25.80 $\pm$ 6.52	47.7 $\pm$ 7.73
	[‡] Significance	p = 0.823	p = 0.011	p = 0.068
Income status	Income less than expenses	23.52 $\pm$ 3.77	24.43 $\pm$ 6.31	48.67 $\pm$ 7.82
	Income equal to expenses	22.94 $\pm$ 4.13	24.80 $\pm$ 6.95	47.88 $\pm$ 7.64
	Income more than expenses	24.06 $\pm$ 3.45	25.84 $\pm$ 7.31	49.37 $\pm$ 7.82
	[‡] Significance	p = 0.020	p = 0.423	p = 0.367
Family type	Nuclear family	24.07 $\pm$ 3.65	25.64 $\pm$ 6.76	49.71 $\pm$ 6.97
	Extended family	23.07 $\pm$ 3.96	24.34 $\pm$ 6.74	49.61 $\pm$ 8.03
	[†] Significance	p = 0.010	p = 0.055	p = 0.006
Presence of chronic disease	Yes	22.89 $\pm$ 4.07	24.39 $\pm$ 6.12	47.56 $\pm$ 8.32
	No	23.57 $\pm$ 3.82	24.91 $\pm$ 6.95	48.57 $\pm$ 7.56
	[†] Significance	p = 0.133	p = 0.510	p = 0.258

PHS= Perception of Health Scale, FRPS= Family Role Performance Scale. [†]Independent samples t test, [‡] ANOVA test.

For this study, FRPS total mean score was 30.92 $\pm$ 6.41, mean scores of its subscales were 14.08 $\pm$ 3.33 for 'task accomplishment' and 16.84 $\pm$ 4.10 for 'relationship-related performance'. PHS total mean score was 48.35 $\pm$ 7.73, the mean scores of its subscales were 11.95 $\pm$ 2.29 for 'importance of health', 11.47 $\pm$ 2.25 for 'self-awareness', 10.50 $\pm$ 3.06 for 'certainty' and 14.26 $\pm$ 4.58 for 'center of control'. The mean score of 'positive health perception' was 23.42 $\pm$ 3.88 and the mean score of 'negative health perception' was 24.79 $\pm$ 6.77 (Table 3).

Table 3. Distribution of FRPS and PHS Total and Subscale Mean Scores.

	X ⁻ $\pm$ SD	Minimum	Maximum
FRPS	30.92 $\pm$ 6.41	13	40
Task accomplishment	14.08 $\pm$ 3.33	5	20
Relationship-related performance	16.84 $\pm$ 4.10	5	20
PHS	48.35 $\pm$ 7.73	30	75
Importance of health	11.95 $\pm$ 2.29	4	15
Self-awareness	11.47 $\pm$ 2.25	5	15
Certainty	10.50 $\pm$ 3.06	4	20
Center of control	14.26 $\pm$ 4.58	5	25
Positive health perception	23.42 $\pm$ 3.88	11	30
Negative health perception	24.79 $\pm$ 6.77	9	45

PHS= Perception of health scale, FRPS= Family role performance scale.

As a result of simple linear regression analysis, a significant correlation was found between Family Role Performance and Perception of Health Scale ($R = 0.389$; $R^2 = 0.151$; $p < 0.01$). According to the regression analysis, it was found that family role performance affected perception of health at the rate of 15.1% (Table 4).

Table 4. Simple Linear Regression Analysis Between Family Role Performance and Perception of Health Scale.

Variable	B	Standard Error	Beta	t	*p
Constant	83.608	0.694		120.406	0.001
Perception of health scale	1.886	0.099	0.389	19.058	0.001

* $p < 0.01$ (Regression test).

Discussion

In this study, it was found that there was a significant correlation between family role performance and perception of health, and as the family role performance increased, the health perception level increased (Table 4). There is no specific study in the literature that assesses the correlation between family role performance and perception of health. In their study, Altay, Çavuşoğlu and Çal, (2016) determined that there was a significant correlation between family relationships and perception of health. Healthy individuals come from healthy families. The most important characteristics of unhealthy families are impaired communication function, disconnection in relationships between members, and being bound by rules. Some of the family roles are imposed on individuals. Poorly defined roles or non-fulfillment of roles cause unhealthy families who hide their problems from each other and thus unhealthy family members who are close to communication (Dai & Wang, 2015; Ortiz, Suárez Villa & Expósito, 2017).

In this study, FRPS total mean scores of those who were female, married and had an extended family were found to be significantly higher (Table 1). In every society, there are roles attributed to a woman or a man. These roles are both family and non-family roles. Family members provide each other's physical, emotional, and social well-being. If the role expectations of spouses from each other are similar in the family, family communication will be easier and a healthy family structure with a high perception of health emerges (Chen et al., 2014). The roles deemed appropriate for woman in terms of gender are family roles. The biggest obstacle to the promotion of women in social stratification, economy and political platform is gender. Women have come into the business life in recent years, thus leading to changes in the family roles of women and men. Employed women are exposed to more pressure arising from the additional demands brought by their roles and responsibilities in the family due to social role differences compared to men and this situation adversely influences both their performance and their health (Gümüştekin & Gültekin, 2015). If family members step out of their roles, family balance is disrupted. If both parents and other family members fulfill the expected roles regularly and adequately, the perceived health level of family members will also be positively affected (Noor, Gandhi, Ishak, & Wok, 2014; Kanişlı & Arı, 2019).

When considering that the highest and lowest scores of FRPS are 40 and 8, respectively, it was determined that the FRPS mean score for this study was at moderate level and the individuals obtained higher scores from the 'relationship-related performance' subscale (Table 3). Family role performance is defined as meeting the natural responsibilities and expectations generated by being a member of the family in a functional and relational sense (Chen et al., 2014). In this study, family performances of individuals are not at the desired level. Relationship-related performance subscale includes various tasks related to daily family life such as 'general support to family members, emotional support to them, giving advice when they need, ensuring communication, and commitment to each other' (Thomas, Liu, & Umberson, 2017; Kanişlı & Arı, 2019). Relationships between family members are permanent and important for lifelong health. In addition, family members are interconnected and an important source of social connection-social impact at every stage of life (Thomas, Liu, & Umberson, 2017). Fulfillment of family role responsibilities by family members is important for both family ties and family health. This result is compatible with the literature.

It was determined that as the educational level of the participants increased, the overall PHS and 'positive health perception' mean score also increased (Table 2). There are studies in the literature that support this result (Çetinkaya, Ovat Cankurtaran, & Önat, 2019; Durmaz, Sürücü, & Özvurmaz, 2020). The greatest difference in individuals' perceptions of health was observed in marital status, education level, and income level.

It was found that the PHS total mean score of the married individuals was significantly higher than the single ones. The 'positive health perception' of the married ones was higher (Table 2). In their study, Khorshid and Efteli (2016) determined that married individuals had higher perception levels of health. This result

indicated that married individuals had more responsibilities in life and being married affected their perception of health. Marital status of individuals affects their perception of health. Social support, avoidance of risks, responsibility and a regular lifestyle brought about by marriage bring along a healthy life, as well (Gönç, 2013). It was found that the total PHS and 'positive health perception' mean scores were higher in those with nuclear families than those with extended families (Table 2). The studies have also reported that individuals with nuclear families have a higher perception of health (Altay et al., 2016; Şenol, Cetinkaya, Ünal, & Öztürk, 2010; Dalcalı, 2020). The 'negative health perception' mean score of unemployed individuals was found to be significantly higher than employed ones (Table 2). There are studies in the literature revealing that socioeconomic status affects the perception of health and there is a strong correlation between them (Çetinkaya et al., 2019; Durmaz et al., 2020). Health perception levels of unemployed and economically poor individuals are low (Khorshid & Efteli, 2016). This result is compatible with the literature.

In this study, it was determined that PHS total mean scores were moderate and while the highest score was obtained from the 'center of control' subscale, the lowest score was obtained from 'certainty' subscale. In addition, the 'negative health perception' mean score of the participants was higher than the 'positive health perception' mean score (Table 3). There are studies reporting the moderate level of health perception (Altay et al., 2016; Ozdelikara, Agacdiken Alkan, & Mumcu, 2018; Okuyan & Caglar, 2019). It is stated that it is important to perceive the health status as good in gaining positive health behavior and the healthy lifestyle behaviors of individuals who perceive their health more positively are positively affected (Açıksöz, Uzun, & Arslan, 2013). The 'center of control' is about determining the individual's self-confidence in changing his or her health. While high scores of 'center of control' sub-scales indicated that the individuals did not attribute being healthy to factors such as chance, fate, and religious belief outside themselves, low scores of 'certainty' subscale indicated that the individuals did not have an idea about what to do to stay healthy and be healthier. This result was remarkable.

Limitations of the study

The limitations of the study are that the study was conducted in a certain time period, the pandemic process was continuing at the time of the study, and the findings of the study are limited with the data obtained from the answers given to the questionnaire and scale form (Family Role Performance Scale and Perception of Health Scale).

Conclusion

In this study, it was determined that as family role performance increased, the level of health perception also increased, and there was a correlation between family role performance and health perception. Family role performance varied in terms of gender, marital status and family type, and family role performances for all participants were at a moderate level. As the education level of the individuals increased, the health perception levels of those who were married and had a nuclear family were higher and all individuals had moderate level of health perception. In addition, individuals' negative health perception scores were high.

Acknowledgements

We thank to all individuals who participated in the study. This study was not funded by any institution or organization.

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