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Research Article

THE EVALUATION OF BURNOUT AND COMMUNICATION SKILLS IN PRIMARY CARE STAFF

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Abstract: *Burnout syndrome is an important problem among health professionals. The aim of the study is to evaluate the relationship between the burnout status and communication skills in primary care staff. The study was conducted in the descriptive type between April and June 2019. The population of the study comprised of family physicians and family health professionals working in primary care unit. The participants were administered the Maslach Burnout Inventory, certain questions concerning sociodemographic characteristics, and the communication skills evaluation scale. In total, 383 individuals working in the primary care unit participated in the study. The mean age was 43 ± 8.1 and among them, 64.8% were women. The scores of the emotional exhaustion and depersonalization of family physicians were significantly higher compared to family health workers. While the depersonalization score of women was significantly lower than men, the sense of personal accomplishment score was higher than men. As the number of daily clinic visits of the family physicians increased, the rate of their emotional exhaustion and depersonalization increased. While the communication skills decreased as the emotional exhaustion and depersonalization increased, the communication skills level increased as the sense of personal accomplishment increased. Women, family health workers, the widowed/the divorced women, and age group were determined to have better communication skills. A significant relation was determined between burnout subscales and increased number of daily average clinic visits of physicians, gender and occupational groups. There was a significant relationship between communication skill levels and burnout subscales concerning occupational groups, gender, marital status and age groups.*

Key words: *Primary care staff, burnout, communication skills*

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1. Introduction

The burnout syndrome is a condition that has been widely studied in recent years that often affects individuals whose profession is performed in contact with people [1]. Maslach made the current definition of the burnout syndrome as “an increase in emotional exhaustion and depersonalization and a reduced sense of personal accomplishment” seen in profession groups that work face-to-face with people in the long-term and stressful working environment [2]. The burnout is widely seen in doctors and has been reported in some studies by 25-75% [3]. The current medical literature shows that the

prevalence of the burnout among US doctors is rapidly increasing to epidemic rates exceeding 50% [4]. Particularly primary care physicians, those working in the emergency department and the frontline health staff with direct patient contact such as internal diseases have the highest burnout rates [5]. In a large-scale international study conducted to measure the burnout of family physicians in 12 countries of Europe, the burnout rates were found as 12% [6]. Health professionals constantly face with stressors (death, pain and loss) and the burnout in physicians increase due to problems during the treatment (treatment unresponsiveness and complications) [7]. This burnout in healthcare professionals adversely affects patient care, such as communication with the patient, patient satisfaction, and increasing medical errors [8, 9]. Similarly, the nurses working in primary care units were also reported to be at risk in terms of burnout in the literature [9, 10]. Skilled communication has an inverse relationship to burnout; that is, an incresase in skilled communication score is associated with lower level of burnout [9].

According to Furnham (1988), having the capacity to communicate effectively is one of the necessary qualifications for medical practice. Effective health care depends on not only the technical skills of the clinicians, but also the ability to establish and maintain an easy relationship with the patient [11]. The burnout can lead to poor quality patient care and medical errors [12]. Inadequate communication skills are reported as a strong obstacle in the delivery of health care services [13].
In this study, our aim is to evaluate the burnout status and communication skills of family physicians and family health staff working in the primary care unit. According to our hypothesis, the burnout rates are high in both study groups which affects the communication skills.

2. Materials and Methods

The descriptive study was conducted between April and June 2019. Before the study, Pamukkale University Faculty of Medicine approved the research by the Ethical Committee of Non-Interventional Clinical Researches.

The universe of the study is, 299 primary care units and 598 family physicians and the family health workers (nurse or midwife) they work with in Denizli. The study has no sample, in an attempt to reach the whole population in the primary care unit. The exclusion criteria of the study were determined as being unable to speak Turkish, having been diagnosed with a psychiatric illness and verbal consent denial. The participants were administered Maslach Burnout Inventory (MBI) to evaluate their burnout status, the communication skills scale (CSS) to evaluate their communications skills. In addition, a questionnaire to reveal the socio-demographic characteristics that included 9 questions (concerning gender, age, marital status, title, total professional experience, unit area, presence of chronic disease, number of daily patients, total professional experience in a primary care unit) prepared by the researchers based on the relevant literature. Of the 9 questions in this questionnaire, the number of daily patients was asked only to physicians. The surveys were conducted in the working environments of the participants, and it took an average of 20 minutes to complete each questionnaire.

2.1. Ethical Statement

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. This study is approved by Pamukkale University Clinical Research Ethics Committee (60116787-020/20660; 20.3.2019)

2.2. Maslach burnout inventory

In the study, MBI was used to determine the burnout that the participants perceived. It was created by Maslach and Jackson (1981) and its adaptation to Turkish as well as its validity and reliability tests were also conducted by Çam (1992). The inventory evaluates the burnout in three sub-dimensions as emotional exhaustion, depersonalization and a reduced sense of personal accomplishment, and each question consists of a total of 22 items with five steps [14, 15]. İn our study the Cronbach alpha coefficient for overall scale was .902; the Cronbach alpha coefficient for emotional exhaustion subscale was .903; the Cronbach alpha coefficient for depersonalization subscale was .794 and the Cronbach alpha coefficient for personal accomplishment subscale was .783.

2.3. Communication skills scale

CCS is a 5-point Likert scale developed by Korkut (1996) to understand how individuals evaluate their communication skills. The 5-point Likert type scale consists of 25 expressions. The validity and reliability tests of the scale were conducted by Korkut, and the scale was found to be one-dimensional according to the results of variance analysis [16]. İn our study the Cronbach alpha coefficient for scale was .931

2.4. Statistical analysis

The data were analyzed with the SPSS 21.0 (Statistical Package for Social Sciences) package program. The continuous variables were given as mean ± standard deviation and the categorical variables were given as numbers and percentages. Since the parametric testing assumptions were not provided, Mann-Whitney U test and Kruskal Wallis Variance Analysis were used to compare the independent group differences. In addition, the relationships between continuous variables were examined with the Spearman correlation analysis, and the differences between categorical variables were examined with Chi square analysis. The statistical significance level was taken as $p < 0.05$.

3. Results

Of all family physicians and family health workers working in primary care unit in Denizli, 64% (n = 383) participated in our study. The mean age was 43± 8.1 years (min.-max. 23-66 years) and among them, 64.8% (n=248) were female and 53% (n=203) were physicians. Of the participants, 80.9% (n=310) were working in the city center, and 7.8% reported hypertension and 6.5% were diagnosed with thyroid disease. The average number of daily patients surveyed by family physicians was 64 (min.-max., 10-120). The socio-demographic characteristics of the participants are presented in Table 1.

Table 1. Socio-demographic characteristics of the participants

Variables		n (%)
Age, (median)		43.0 ± 8.1
Gender	Woman Male	248 (64.8) 135 (35.2)
Marital status	Married Single Widow/divorced	327 (85.4) 29 (7.6) 27 (7.0)
Title	Family physicians Family health workers	203 (53.0) 180 (47.0)
Professional experience, year	Family physicians Family health workers	20.5 ± 8.9 19.2 ± 6.8
FHC professional experience, year	Family physicians Family health workers	9.5 ± 3.5 9.6 ± 3.5
The number of clinic visits		64.43 ± 18.19
Workplace center		310 (80.9)
Chronic disease primary care staff	Hypertension Thyroid diseases Diabetes mellitus Rheumatological disease Gastrointestinal system disease Total	10.3 (5.0) 5.9 (7.2) 4.9 (3.9) 3.0 (3.3) 1.0 (1.1) 22.2

FHC: family health center

The MBI subscale average scores of the family physicians were determined as 18.31 ± 8.9 for emotional exhaustion, 6.3 ± 4.7 for depersonalization and 23.51 ± 5.4 for personal accomplishment. It was found that the emotional exhaustion and depersonalization scores of family physicians were statistically significantly higher and the sense of personal accomplishment scores were considerably lower compared to family health workers (p = 0.001; p = 0.0001; p = 0.004). İn terms of gender, while the depersonalization scores in women were statistically significantly lower and the sense of personal accomplishment scores were higher than men, the emotional exhaustion scores of women were lower than men, though statistically not significant (p = 0.0001; p = 0.002; p = 0.103, respectively). The personal achievement scores in staff patients with chronic diseases were statistically significantly lower (0.0047).

The average score of the communication skills scale was 104.29 ± 11.3. This score was found significantly lower in family physicians than family health workers (p=0.0001). İn addition, the average score of the communication skills scale of the female physicians was 103.40 ± 13.39 and that of the male physicians was 101.24 ± 10.84 and was statistically significantly higher (z = -2,320; p = 0.020).

The communication skill scores were found to be significantly higher at 40-49 ages and divorced /widowed ones compared to other groups (p=0.012; p=0.004. respectively). The comparison of the burnout subscale scores and the communication skill scores to sociodemographic data is included in Table 2.

Table 2. The comparison of the burnout subscale scores and the communication skill scores to the sociodemographic characteristics

	EE (Avg. ±SS)	DP (Avg. ±SS)	PA (Avg. ±SS)	CSES (Avg. ±SS)
Gender[a]				
Woman	16.28±7.9	3.92±3.5	24.8±5.1	105.9±11.3
Male	18.07±9.4	6.76±5.1	23.0±5.6	101.2±10.8
	z=-1.629	z=-5.274	z=-3.043	z=-4.336
	p=0.103	*p=0.0001*	*p=0.002*	*p=0.0001*
Marital status[b]				
Married (1)	16.5±8.5	4.8±4.4	24.2±5.4	103.9±11.4
Single (2)	19.4±7.6	4.3±3.5	22.5±5.2	102.0±10.1
Widowed (3)	18.9±9.2	5.2±4.5	25.6±4.7	110.6±9.2
	kwh=2.359	kwh=3.505	kwh=4.828	kwh=10.953
	p=0.096	*p=0.173*	*p=0.089*	*p=0.004(1-3.2-3)*
Age category[b]				
29 years and under (1)	17.28±5.0	4.83±3.2	24.6±3.9	100.5±18.3
30-39 years(2)	16.88±8.0	5.11±4.1	23.63±5.1	101.8±11.2
40-49 years (3)	16.75±8.5	4.3±4.1	24.5±5.2	106.1±10.6
50 years and older (4)	17.2±9.7	5.9±5.1	24.0±6.2	104.2±10.4
	kwh=0.335	kwh=6.859	kwh=2.636	kwh=10.997
	p=0.953	*p=0.077*	*p=0.451*	*p=0.012 (2-3)*
Job[a]				
Family physicians	18.31±8.9	6.3±4.7	23.51±5.4	102.0±11.8
Family health workers	15.33±7.6	3.3±3.4	25.0±5.2	106.8±10.3
	z=-3.195	z=-6.546	z=-2.918	z=-3.858
	p=0.001	*p=0.0001*	*p=0.004*	*p=0.0001*
Working place[b]				
City centre (1)	16.89±8.5	4.88±4.4	24.71±5.2	104.56±10.3
District (2)	17.8 ± 8.9	5.06±4.4	22.14±5.8	104.16±16.7
Other (village) (3)	15.09±7.4	5.18±3.8	22.05±5.2	100.77±10.1
	kwh=1.605	kwh=0.548	kwh=13.898	kwh=4.504
	p=0.448	*p=0.760*	*p=0.001 (1-2)*	*p=0.105*
Chronic illness[a]				
Yes	18.11±9.1	4.95±4.9	23.01±6.1	105.01±11.6
No	16.57±8.3	4.91±4.2	24.56±5.1	104.08±11.3
	z=-1.358	z=-0.604	z=-1.982	z=-1.018
	p=0.174	*p=0.546*	*p=0.047*	*p=0.308*

[a] Man Whitney U test used; [b] Kruskal walls test used

EE:emotional exhaustion, DP: depersonalization, PA: personal accomplishment, CSES: communication skill scores

The average daily clinic visit number of family physicians was determined as 64.44± 18.1. It was determined that there was a moderate positive correlation between the clinic visit number the emotional exhaustion scores; while there was a weak positive correlation between the clinic visit number and depersonalization scores, while no correlation was determined with the sense of personal accomplishment and the communication skills (r = 0.397 p = 0.0001; r = 0.152 p = 0.031; r = -0.053 p = 0.459; r = 0.091 p = 0.19, respectively). When the burnout subscale scores and communication skill

scores were compared, it was determined that there was a weak negative correlation between the communication skill scores and the emotional exhaustion, a moderate negative relationship between the communication skill scores and the depersonalization, and a moderate positive correlation between the communication skill scores and the sense of personal accomplishment (r = -2.66 p = 0.0001; r = -3.80 p = 0.0001; r = 4.73 p = 0.0001) Table 3 shows the relationship between Maslach subscales and daily polyclinic numbers and communication skills.

Table 3. The relationship between Maslach subscales and daily clinic visit numbers and the communication skills scores: Spearman's rank-order correlation test

	Emotional exhaustion		Depersonalization		Personal accomplishment	
	r'	*p*	*r'*	*p*	*r'*	*p*
The number of clinic visits	0.379	0.0001	0.152	0.031	-0.053	0.459
Communication skill score	-2.66	0.0001	-3.80	0.0001	4.73	0.0001

4. Discussion

Our study was similar in terms of the occupational groups and sociodemographic characteristics of the participants with other studies on burnout in primary care staff [6,17-25]. In our study, in line with the literature, the emotional exhaustion and depersonalization scores were determined to be higher in physicians, however, the personal accomplishment scores were lower compared to the family health workers [17-19]. This seems to be due to the huge burden of responsibilities in the medical profession and the fact that physicians have to make more critical decisions under uncertainty [26]. In addition, we think that since, compared to the family health workers, the physicians encounter more patients and face with much more cases such as malpractice, there is more burnout in physicians than family health workers.

When evaluated in terms of gender, similar to our study, it was also reported in the literature that the depersonalization in men was higher compared to women, while the sense of personal accomplishment was lower [19, 21]. Contrary to our study, in some previous studies, the burnout rate in women was found higher compared to men, and this was associated with their higher responsibilities. In our study, only the personal accomplishment scores of burnout subscales were determined to be lower in those working outside the city center, while no relation was found with other subscales. In a study conducted by Goehring et al., those working in the semi-urban and rural areas were found under risk in terms of the burnout level [21]. In addition. as shown in some previous studies, no significant correlation was found between the age and marital status variables and burnout subscales in our study [22-24].

Similar to our study, Gonzales et al., reported that as the daily average number of patient clinic visits of family physicians increased, their emotional exhaustion and depersonalization scores increased [19]. Another study reported that the number of annual primary care visits per patient that healthcare professionals receive is closely associated with healthcare professionals' empathy and burnout [25].
The healthcare professional's burnout affects negatively not only themselves, but also their communication with their patients and the patient satisfaction. In our study, it was found that as the family physicians and family health workers burnout increased, the communication skills decreased. Similarly, there are studies in the literature suggesting that healthcare professionals with high burnout level have lower communication skills [9, 27-29].

It was also found in our study that the female physicians and the family health workers had higher communication skill scores than male physicians. It is stated in the literature that, the communication styles of male and female differ in various ways and the interpersonal skills concern the quality of communication between the patient physician are higher in female physicians than male physicians In other studies conducted in primary care unit, it was revealed that the female physicians were engaged in establishing more partnerships with their patients and asking questions and they kept visits longer compared to their male colleagues [30, 31].

The most important limitation of this study is the burnout subscale scores differ from the previous studies in the literature. This difference is thought to be due to the fact that the healthcare professionals who participated in the study were working in different areas of the health system. the scale used was using different scoring systems and was performed in different regions [17, 21-23]. In addition, the communication skills evaluation was reported by the self-evaluation of the health professionals, thereby it has the potential for subjective assessment.

5. Conclusion

In conclusion, regardless of the age, marital status and working place of primary healthcare professionals, family physician's burnout more than family health workers and burnout in men more than women. Also, the burnout of physicians was affected by the number of daily clinic visit. In addition, it has been determined that as the burnout of the participant increases, their communication skills decrease.

The well-being of the healthcare professionals is of great importance as it will contribute both to themselves and to their patients by providing high quality health services [3, 8, 9]. Developing strategies to prevent the burnout will provide improvements such as treatment compliance, treatment response and recovery in both healthcare providers and patients.

Ethical Statement: All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

This study is approved by Pamukkale University Clinical Research Ethics Committee.

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References

[1] Schaufeli WB. Leiter MP. "Maslach C. Burnout: 35 years of research and practice", *Career Development International*, 14 (3), 204-20, 2009.

[2] Maslach C. Schaufeli WB. Leiter MP. "Job burnout", *Annual Review of Psycholo*gy, 52, 397-422, 2001.

[3] Wallace JE. Lemaire JB. Ghali WA. "Physician wellness: a missing quality indicator", *Lancet*, 374 (9702), 1714-21, 2009.

[4] Rothenberger DA. "Physician Burnout and Well-Being: A Systematic Review and Framework for Action", *Diseases of the Colon & Rectum*, 60 (6), 567-76, 2017.

[5] Shanafelt TD. Boone S. Tan L. Dyrbye LN. Sotile W. Satele D. et al. "Burnout and satisfaction with work-life balance among US physicians relative to the general US population". *Archives of internal medicine.* 172 (18). 1377-85. 2012.

[6] Soler JK. Yaman H. Esteva M. Dobbs F. Asenova RS. Katic M. et al. "Burnout in European family doctors: the EGPRN study", *Family Practice*, 25 (4), 245-65, 2008.

[7] Leal-Costa C. Díaz-Agea JL. Tirado-González S. Rodríguez-Marín J. van-der Hofstadt CJ. "Communication skills: a preventive factor in Burnout syndrome in health professionals", *Anales del Sistema Sanitario de Navarra,* 38 (2), 213-23, 2015.

[8] Penberthy JK, Chhabra D, Ducar DM, Avitabile N, Lynch M, Khanna S, Xu Y, Ait-Daoud N, Schorling J. Impact of coping and communication skills program on physician burnout, quality of life, and emotional flooding, *Safety and health at work*, 9 (4), 381-7, 2018

[9] Kim LY, Rose DE, Ganz DA, Giannitrapani KF, Yano EM, Rubenstein LV, Stockdale SE. Elements of the healthy work environment associated with lower primary care nurse burnout, *Nursing outlook*, 68(1), 14-25, 2020.

[10] Monsalve-Reyes CS. San Luis-Costas C. Gómez-Urquiza JL. Albendín-García L. Aguayo R. Cañadas-De la Fuente GA. "Burnout syndrome and its prevalence in primary care nursing: a systematic review and meta-analysis", *BMC Family Practice,* 19 (1), 59, 2018.

[11] Dickson. D. A. "Interpersonal communication in the health professions: A focus on training", *Counseling Psychology Quartely,* 2 (3), 345-66, 1989.

[12] Cubero DIG. Fumis RRL. de Sá TH. Dettino A. Costa FO. Van Eyll BMRHA. et al. "Burnout in Medical Oncology Fellows: a Prospective Multicenter Cohort Study in Brazilian Institutions", *Journal of Cancer Education,* 31 (3), 582-7, 2016.

[13] Amiri H. Sadeghi Sharme M. Karimi Zarchi A. Bahari F. Binesh A. "Effectiveness of Solution-Focused Communication Training (SFCT) in Nurses' Communication Skills", *Journal of military medicine,* 14 (4), 271-8, 2013.

[14] Maslach C. Jackson SE. "The measurement of experienced burnout journal of occupational behavior", *Journal of Organizational Behavior,* 2 (2), 99-113, 1981.

[15] Çam. O. "Investigation of Validity and Reliability of Burnout Inventory", *VII. National Psychology Congress, Ankara.* 1992. pp. 155-160

[16] Korkut F. "Development of communication skills assessment scale: reliability and validity studies", *Journal of psychological counseling and guidance*, 2 (7), 15- 23, 1996.

[17] Zarei E. Ahmadi F. Sial MS. Hwang J. Thu PA. Usman SM. "Prevalence of Burnout among Primary Health Care Staff and Its Predictors: A Study in Iran", *International Journal of Environmental Research and Public Health*, 16 (12), 2249, 2019.

[18] Escribà-Agüir V. Martín-Baena D. Pérez-Hoyos S. "Psychosocial work environment and burnout among emergency medical and nursing staff", *International Archives of Occupational and Environmental Health*, 80 (2), 127-33, 2006.

[19] Navarro-González D. Ayechu-Díaz A. Huarte-Labiano I. "Prevalence of burnout syndrome and its associated factors in Primary Care staff", *Semergen*, 41 (4), 191-8, 2015.

[20] Amiri M, Khosravi A, Eghtesadi AR, Sadeghi Z, Abedi G, Ranjbar M, Mehrabian F. "Burnout and its influencing factors among primary health care providers in the north east of Iran", *PloS one*, 11(12), 2016.

[21] Goehring C. Bouvier Gallacchi M. Künzi B. Bovier P. "Psychosocial and professional characteristics of burnout in Swiss primary care practitioners: a cross-sectional survey", *Swiss Medical Weekly*, 135 (7-8), 101-8, 2005.

[22] Cagan O. Gunay O. "The job satisfaction and burnout levels of primary care health workers in the province of Malatya in Turkey*", Pakistan Journal of Medical Sciences*, 31 (3), 543-7, 2015.

[23] Pintarić Japec V. Vučemilo L. Kust D. Babacanli A. Dodig D. Štefančić V. et al. "Burnout among Croatian physicians: a cross sectional national survey", *Croatian Medical Journal*, 60 (3), 255-64, 2019.

[24] Dyrbye LN. Varkey P. Boone SL. Satele DV. Sloan JA. Shanafelt TD. "Physician satisfaction and burnout at different career stages", *Mayo Clinic Proceeding*, 88 (12), 1358-67, 2013.

[25] Yuguero O, Melnick ER, Marsal JR, Esquerda M, Soler-Gonzalez J. "Cross-sectional study of the association between healthcare professionals' empathy and burnout and the number of annual primary care visits per patient under their care in Spain", *BMJ open*, 8 (7), 2018.

[26] Ramírez MR. Otero P. Blanco V. Ontaneda MP. Díaz O. Vázquez FL. "Prevalence and correlates of burnout in health professionals in Ecuador", *Comprehensive Psychiatry*, 82, 73-83, 2018.

[27] Chang BP. Carter E. Ng N. Flynn C. Tan T. "Association of clinician burnout and perceived clinician-patient communication", *American Journal of Emergency Medicine*, 36 (1), 156-8, 2018.

[28] Travado L. Grassi L. Gil F. Ventura C. Martins C. "Southern European Psycho-Oncology Study Group. Physician-patient communication among Southern European cancer physicians: the influence of psychosocial orientation and burnout", *Psychooncology*, 14 (8), 661-70, 2005.

[29] Vermeir P, Blot S, Degroote S, Vandijck D, Mariman A, Vanacker T, Peleman R, Verhaeghe R, Vogelaers D. Communication satisfaction and job satisfaction among critical care nurses and their impact on burnout and intention to leave: A questionnaire study, *Intensive and Critical Care Nursing*, 48, 21-7, 2018

[30] Li S, Lee-Won RJ, McKnight J. Effects of online physician reviews and physician gender on perceptions of physician skills and Primary Care Physician (PCP) selection, *Health communication*, 34(11),1250-8, 2019

[31] Roter DL. Hall JA. Aoki Y. "Physician gender effects in medical communication: a meta-analytic review", *JAMA*, 288 (6), 756-64, 2002.