

Job satisfaction of primary healthcare professionals: a cross-sectional survey in Greece

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Abstract. *Background:* The role of job satisfaction is essential for the operation of public Primary Healthcare Centers in Greece. The dimensions of job satisfaction can be used to gauge employees' engagement and performance. *Methods:* Job Satisfaction Survey was employed among healthcare professionals in 32 Primary Healthcare Centers, between June 2019 and October 2020. The 36 items of the questionnaire are expressed on a six-point Likert scale divided into 9 aspects: salary, promotion, supervision, fringe benefits, contingent rewards, operating procedures, co-workers, nature of work, and communication. Additional questions were added covering sociodemographic characteristics. *Results:* A total of 1,007 professionals completed the questionnaire (83.92% response rate), of which 51.04% were nurses, 27.61% physicians, and 21.35% other healthcare employees. The average overall job satisfaction score indicates ambivalence (3.63 out of 6). Participants were dissatisfied with salaries (2.38) and promotion (2.84) aspects and ambivalent regarding fringe benefits (3.04), operating procedures (3.23), and contingent rewards (3.30). Moderate satisfaction was reported for the nature of work (4.53), supervision (4.52), co-workers (4.37), and communication (4.22). Nurses by far reported the lower levels of satisfaction in all dimension except communication compared to the other groups. *Conclusions:* The findings suggest that decreasing administrative workload and the improvement of working conditions, procedures, payment, and provision of better opportunities for the promotion of PHC professionals might be the most effective ways to subsequently improve their subjective well-being and their job satisfaction which in turn will improve their performance. (www.actabiomedica.it)

Key words: Primary healthcare centers, Job satisfaction, Well-being, Performance, Engagement, Covid-19, Greece

Introduction

Job satisfaction refers to “how satisfied an employee is at work or how well different aspects of their occupation provide fulfillment”. This is a subjective judgment and is closely related to motivation, reduced turnover and absenteeism, efficiency and productivity of human resources (1). Specifically, employee performance is one of the most important challenges in healthcare organizations, where there exists a high level of tension, unlike any other sector, in the sense that it is a very important factor that affects the quality

and quantity of care delivered (2). Hence, employees' involvement and interaction with patients play a significant role in quality perceptions and patient satisfaction (3).

A Primary Healthcare Center (PHC) is the initial point of contact for most patients, due to several factors such as accessible location, familiarity, fast contact, and communication in order to provide continuous and comprehensive care, whatever the patient's need is. The most significant role of a primary healthcare center is to offer quality health and social services to the underprivileged sections of the society. Moreover,

it makes patients more available and cooperative in the various social welfare and public health services initiated by the concerned administrations and other organizations. Primary healthcare involves providing treatment for common illnesses, managing long-term illnesses such as diabetes and heart disease, and preventing future ill-health through advice, immunization, and screening programs. In Greece, legislation enacted in 2014 formally transferred all public primary healthcare facilities to the jurisdiction of the Regional Health Authorities (YPEs). Our research was conducted at the 1st Regional Health Authority of Attica in Athens, where ten out of thirty-two healthcare centers provide services 24/7 and the remaining treat patients only during the morning and evening shifts and never on weekends. Moreover, the most important role of primary healthcare professionals is promoting sustainability and enhancing the quality of health care through service continuity and a more person-centered approach, often providing care over extended periods of time; as a result, the relationship between patients and professionals is particularly important. Job satisfaction of Primary Healthcare Professionals (PHPs) is a critical factor for a healthcare system because the primary care level is responsible for providing care to a greater proportion of the population than any other care level. In the long term, satisfaction survey and reporting would help us understand variations in resilience in expected or unexpected negative shocks. The findings would raise awareness levels of HR departments, policy-makers, and managers and presumably help them develop a robust strategy for the motivation, engagement and performance of employees. A more efficient PHC, alleviates hospital work by reducing unnecessary numbers of patients and non-patients and cutting the rates of emergency department visits, thereby without jeopardizing the sustainable development of the health system (4).

During the last decade, protocols have been constantly changing, healthcare employees have been facing unprecedented issues, and resources have been dwindling. Greece, in the coming years, as well as other western countries, will face a lack of physicians and other healthcare employees (5). Especially, in the first months of the outbreak most of the essential services provided shifted to tackle the Covid-19 disease

and subsequently PHC professionals undertook the vaccination of the population. This result is related to the sudden increase in demands, causing anxiety, uncertainty, confusion, inadequate staffing, excessive individual workload, imperfect specific responsibilities and requirements of employees, thus the fear of an employee being infected and getting quarantined and/or being the cause of infection of a family member or a colleague.

Materials and methods

The study adopts a cross-sectional design to survey the levels and drivers of job satisfaction at 32 PHC centers of the 1st Regional Health Authority of Attica in Athens in Greece, between June 2019 and October 2020, using Spector's Job Satisfaction Survey questionnaire.

Instrument

Spector's Job Satisfaction Survey (JSS) questionnaire was used, which is designed to assess employees' attitudes towards various aspects of their job and consists of 36 questions that span through nine dimensions of satisfaction. The latter are pay, promotion, supervision, fringe benefits, contingent rewards, operating procedures, co-workers, nature of work, and communication. Each of these dimensions consists of four items that are written in both directions, with positive and negative meaning, so about half of them (negatives) were reverse coded. The measurement scale was a six-point Likert scale, where 1=strongly disagree, 2=moderately disagree, 3=slightly disagree, 4=slightly agree, 5=moderately agree and 6=strongly agree – the higher the score, the greater the job satisfaction. Due to its structure, JSS can yield a total of 10 scores, comprising nine facet scores and the overall job satisfaction score. Finally, the JSS allows the researchers to find out not only whether employees are satisfied with their jobs but also which parts of the job aspects are related to job satisfaction (6).

Study participants were asked to independently complete a structured questionnaire. A mean item response of four or more represents satisfaction, whereas

a mean response of three or less represents dissatisfaction. Mean scores between three and four indicate indifference or ambivalence, neither satisfaction, nor dissatisfaction. The validity and reliability study of the Greek version of the JSS was conducted by Tsounis and Sarafis (7), in which the internal consistency coefficient (Cronbach's α) of the scale was found to be 0.87. Finally, professionals' gender, age, level of education, experience, economic condition, employment and marital status were taken also into consideration.

Ethical permission

The Ethical Committee of the National and Kapodistrian University of Athens approved the study protocol. Additionally, the study was conducted after review and written approvals from the Scientific Council of Primary Health Care of the 1st Regional Health Authority of Attica (Meeting 5th/24-5-2019/Topic 7th) and from the 1st Regional Health Authority of Attica (approval number: 31714-7/6/2019). The study was conducted in accordance with ethical research guidelines. Respondents were provided with written information about the study's background and aims, and participation was voluntary. Delivering a completed survey form was taken as consent to participate in the study. Respondents were guaranteed anonymity, and all information was treated confidentially.

Settings and participants

A pilot study was carried out with 20 volunteer participants to identify any problems. Since, all questionnaires were returned with no problems reported, no alterations were made. The reliability of the pilot study was verified by a 0.87 Cronbach's alpha value (8). The survey was conducted between June 2019 and October 2020, in 32 out of a total of 57 PHCs (or 56.14%) in the 1st Regional Health Authority of Attica. The region of Attiki, with its capital Athens, is the largest region of Greece, has an estimated population of around 3.75 million people, which amounts to approximately 35% of total Greek population. For those employees who agreed to participate in the study, an envelope containing the questionnaire and the consent form was delivered. The participants completed their

personal and professional characteristics and answered the Greek version of the JSS. Of the 1,200 questionnaires distributed, 1,007 [83.92%] were returned. Respondents were informed that the study results would be used only for scientific purposes.

Statistical analysis

The Kolmogorov-Smirnov and Shapiro-Wilk tests were used for normality assessment. Descriptive statistics were used to report respondents' level of job satisfaction. The 36 items of job satisfaction and other variables on ratio scales were expressed as means (M) and standard deviations (SD) and qualitative data as absolute and relative frequencies. Categorical variables were presented as frequency (N) and percentages (%). Kruskal Wallis test was used for comparisons of job satisfaction according to gender, education, age and job-related variables. Reliability analysis included Cronbach's Alpha for internal consistency, t-test also was used. The level of statistical significance was set at 0.05. All statistical analyses were performed using IBM SPSS v.26.

Results

Normality analysis

The Kolmogorov-Smirnov and Shapiro-Wilk normality tests were used for normality. Based on the results, the data was determined as not normally distributed ($P < 0.05$).

Sociodemographic analysis

The professionals of primary healthcare who participated in this survey were doctors [278; 27.61%], nurses [514; 51.04%] and other health professionals [215; 21.35%]. The majority of employees were female [786; 78.05%] mostly due to the large number of female nursing staff. Men represented the minority [221; 21.95%]. The age distribution was: 0.20% under 25 years old, 2.88% between 26-35, 32.27% between 36-45, 37.24% between 46-55, and 27.41% over 56. As far as the educational level is concerned,

the majority was university graduates [66.43%], while 4.37% had post-graduate studies. Concerning employment status, the majority worked as permanent staff [875; 86.89%] and only 132 [13.11%] employees worked as temporary staff. As regards length of service, 8.24% had under 5 years, 6.85% of study participants had worked from 6 to 10 years, 21.05% from 11 to 15 years, 17.18% from 16 to 20 years, while 46.67% had worked for more than 20 years. About 7 out of 10 employees stated that they managed to cope with their financial obligations but without having much money left aside whereas 2 out of 10 coped financially yet with great difficulties.

Mean scores and Standard Deviations (SD) of job satisfaction

On a scale of 1 to 6, male respondents were a little more satisfied with their jobs [3.64] than were female staff [3.51]. The overall score was 3.54, indicating ambivalence, that is neither satisfaction nor dissatisfaction among the staff (Table 1). Both male and female employees were most satisfied with “Nature of work” [4.62/4.53] and “Supervision” [4.59/4.51] respectively. Both genders were least satisfied with “Pay” [2.55/2.34] and “Promotion” [3.03/2.78] respectively. All the other dimensions, like “Fringe Benefits” [3.43/3.27], “Contingent Rewards” [3.38/3.28], “Operating Conditions” [3.80/3.69], “Coworkers” [3.74/3.63] and “Communication” [3.61/3.56] received mid-level mean values that imply ambivalence.

Differences were detected in job satisfaction by age group. With a mean score ranging from 2.67 to 3.63, younger respondents in the range ≤ 25 years old [M=2.67], showed a lower satisfaction level compared to the older age groups. Looking closer, respondents who were over 56 years old [27.41%] expressed higher satisfaction levels [M=3.63]. Regarding, the level of education, bachelor respondents [66.43%-M=3.63] were more satisfied in relation to other categories of education. Also, the findings reported that temporary employees [3.77] were slightly more satisfied in relation to permanent employees [3.50]. Finally, a small percentage [7.15%] who stated that they were financially comfortable, had a higher level of satisfaction [M=4.04].

The mean score of the overall perception of job satisfaction of healthcare staff who worked at the 1st Regional Health Authority of Attica was 3.54 on a one to six scale. This overall perception exceeded “slightly disagree” (score 3) and approached “slightly agree” (score 4). Employees are thus neither satisfied nor dissatisfied with their job and the score, in fact indicates ambivalence. The dimensions associated with the highest levels of dissatisfaction were “pay” and “promotion”. Additionally, the dimensions associated with the highest levels of satisfaction were the “nature of work” and “supervision”. In Table 2, observing the satisfaction rates of employees by category of personnel, we can infer that doctors are the most satisfied, while nurses the most dissatisfied. The PHC performance in Greece was affected by the Covid-19 pandemic as all the percentages of job satisfaction went down for all the categories of employees. Especially for nurses, the t-test before and after the pandemic crisis (9), shows us that for most dimensions of job satisfaction (except for fringe benefits and communication) the differences in means are statistically significant. This means, that the perception of job satisfaction for nurses changed during the pandemic. As for the other two categories of employees (doctors and other health professionals), we don't have an adequate sample for comparison. Significantly, the job satisfaction of the employees who took part in this research was affected by the change made in their beliefs about the aspects of supervision, operating procedures, co-workers, and the nature of work.

Bivariate associations

A Kruskal Wallis test shows that there is a significant difference in the dimension of pay, with respect to gender, age, level of education, marital and employment status, professional experience and economic condition [P<0.001] at 0.05 level of significance (Table 1). Moreover, there is a significant difference in promotion scale scores of respondents with respect to gender, age, level of education, economic condition [P<0.001] and professional experience [P=0.057], but no significant difference with respect to marital [P=0.163] and employment status [P=0.808]. Yet, there is a significant difference in the scores on supervision given by respondents with respect to level of education, economic

Table 1. Mean scores and Standard Deviations (SD) of Job Satisfaction.

Demographic variables		Pay		Promotion		Supervision		Fringe Benefits		Contingent Rewards		Operating Conditions		Co-workers		Nature of work		Communication		Overall Job Satisfaction	
n	%	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Gender																					
Male	221	21.95	2.55	3.03	0.65	4.59	0.56	3.43	0.56	3.38	0.66	3.80	0.58	3.74	0.58	4.62	0.50	3.61	0.61	3.64	0.46
Female	786	78.05	2.34	2.78	0.59	4.51	0.54	3.27	0.57	3.28	0.57	3.69	0.59	3.63	0.50	4.53	0.48	3.56	0.51	3.51	0.41
P-sig		<0.001		<0.001		0.021		<0.001		0.007		0.008		0.005		0.005		0.070		<0.001	
Age																					
< 25 years	2	0.20	2.13	1.59	1.77	3.50	1.77	2.63	2.30	2.50	2.12	2.88	0.88	2.63	2.30	2.88	2.65	2.63	2.30	2.67	1.96
26-35 years	29	2.88	2.60	0.73	0.72	4.54	0.82	3.17	0.72	3.13	1.02	3.47	0.91	3.59	0.78	4.59	0.70	3.34	0.84	3.45	0.56
36-45 years	325	32.27	2.41	0.56	0.56	4.53	0.61	3.36	0.58	3.28	0.56	3.67	0.55	3.64	0.50	4.57	0.51	3.54	0.51	3.53	0.39
46-55 years	375	37.24	2.28	0.52	0.57	4.50	0.49	3.23	0.54	3.26	0.56	3.70	0.55	3.61	0.49	4.51	0.44	3.55	0.51	3.49	0.39
56 > years	276	27.41	2.48	0.57	0.66	4.56	0.49	3.37	0.55	3.41	0.59	3.83	0.61	3.74	0.52	4.57	0.43	3.67	0.52	3.63	0.45
Overall	1,007	100	2.38	0.56	2.84	0.61	4.52	0.55	3.31	0.57	3.30	3.72	0.59	3.65	0.52	4.55	0.49	3.57	0.54	3.54	0.42
P-sig		<0.001		<0.001		0.319		0.001		0.004		0.001		0.022		0.245		0.004		0.001	
Level of Education																					
Compulsory	14	1.39	2.23	0.47	0.61	4.13	0.80	3.04	0.62	3.05	0.81	3.52	1.00	3.43	0.68	4.27	0.71	3.38	0.76	3.28	0.63
Secondary	280	27.81	2.17	0.43	0.45	4.36	0.54	3.09	0.47	3.15	0.50	3.53	0.59	3.48	0.43	4.38	0.47	3.47	0.45	3.36	0.34
Bachelor	669	66.43	2.47	0.57	0.63	4.60	0.49	3.41	0.53	3.39	0.56	3.81	0.53	3.74	0.50	4.61	0.43	3.64	0.51	3.63	0.39
Masters/PhD	44	4.37	2.44	0.80	0.83	4.55	0.95	3.13	1.02	2.99	1.07	3.49	0.86	3.51	0.87	4.68	0.89	3.25	0.96	3.41	0.73
P-sig		<0.001		<0.001		<0.001		<0.001		<0.001		<0.001		<0.001		<0.001		<0.001		<0.001	
Marital Status																					
Married	868	86.20	2.36	0.55	0.59	4.52	0.51	3.30	0.53	3.31	0.54	3.73	0.57	3.66	0.48	4.53	0.44	3.59	0.49	3.54	0.40
Unmarried	116	11.50	2.61	0.63	0.74	4.60	0.74	3.43	0.74	3.30	0.83	3.69	0.72	3.69	0.72	4.66	0.70	3.52	0.75	3.58	0.56
Divorced	20	2.00	2.38	0.63	0.68	4.46	0.65	3.01	0.83	3.00	0.92	3.54	0.67	3.34	0.77	4.53	0.75	3.36	0.88	3.37	0.54
Widowed	3	0.30	2.17	0.29	0.58	4.08	0.14	3.25	0.25	3.00	0.00	3.08	0.38	3.25	0.00	4.00	0.00	3.25	0.00	3.19	0.10
P-sig		<0.001		<0.001		0.022		0.002		0.029		0.085		0.012		0.001		0.123		0.008	
Employment relationship																					
Permanent	875	86.89	2.32	0.52	0.59	4.49	0.51	3.24	0.52	3.26	0.56	3.69	0.57	3.61	0.50	4.51	0.45	3.55	0.51	3.50	0.40
Temporary	132	13.11	2.83	0.62	0.76	4.74	0.73	3.76	0.67	3.56	0.72	3.87	0.66	3.91	0.60	4.78	0.62	3.73	0.68	3.77	0.49
P-sig		<0.001		<0.001		<0.001		<0.001		<0.001		<0.001		<0.001		<0.001		<0.001		<0.001	
Professional Experience																					
< 5 years	83	8.24	2.87	0.58	0.67	4.74	0.63	3.80	0.58	3.56	0.67	3.87	0.69	3.94	0.54	4.80	0.51	3.72	0.65	3.78	0.44
6-10 years	69	6.85	2.70	0.62	0.66	4.65	0.73	3.65	0.61	3.43	0.63	3.82	0.55	3.79	0.57	4.74	0.55	3.64	0.63	3.69	0.44
11-15 years	212	21.05	2.28	0.47	0.52	4.47	0.57	3.17	0.50	3.18	0.56	3.58	0.54	3.54	0.48	4.49	0.49	3.49	0.47	3.44	0.36
16-20 years	173	17.18	2.24	0.55	0.59	4.64	0.43	3.23	0.51	3.30	0.52	3.82	0.48	3.70	0.45	4.59	0.39	3.56	0.51	3.54	0.35
> 20 years	470	46.67	2.35	0.54	0.63	4.45	0.51	3.26	0.55	3.29	0.59	3.70	0.62	3.62	0.53	4.48	0.48	3.58	0.53	3.52	0.45

(Continued)

• Scores and percentages of satisfaction levels for dimensions of job satisfaction < 13.3.2020												
Doctors			Nurses			Other Health Professionals			Overall Sample			
N = 266 - 38,22 %			N = 246 - 35,34 %			N = 184 - 26,44 %			N = 696 - 100 %			
Dimensions	Mean	SD	Satisfied (%)*	Mean	SD	Satisfied (%)*	Mean	SD	Satisfied (%)*	Mean	SD	Satisfied (%)*
Communication	4.35	0.47	23.92	4.20	0.79	15.27	4.10	0.51	9.44	3.57	0.54	17.43
Overall Job Satisfaction	3.93	0.28	29.18	3.53	0.24	11.81	3.52	0.35	17.87	3.54	0.42	18.62
• Scores and percentages of satisfaction levels for dimensions of job satisfaction > 14.3.2020												
Doctors			Nurses			Other Health Professionals			Overall Sample			
N = 12 - 3,86 %			N = 268 - 86,17 %			N = 31 - 9,97 %			N = 311 - 100 %			
Dimensions	Mean	SD	Satisfied (%)*	Mean	SD	Satisfied (%)*	Mean	SD	Satisfied (%)*	Mean	SD	Satisfied (%)*
Pay	2.85	0.25	2.08	2.24	0.27	0.00	2.44	0.21	0.00	2.26	0.30	0.08
Promotion	3.29	0.38	4.17	2.91	0.29	0.00	2.64	0.21	0.00	2.90	0.32	0.16
Supervision	4.56	0.53	50.00	4.13	0.19	13.25	4.43	0.15	16.13	4.15	0.24	14.95
Fringe Benefits	3.69	0.43	6.25	3.13	0.27	0.19	3.47	0.18	0.00	3.15	0.31	0.48
Contingent Rewards	3.81	0.49	12.50	3.08	0.26	0.19	3.44	0.20	1.61	3.10	0.31	0.80
Operating Procedures	3.96	0.54	12.50	3.35	0.34	0.56	3.77	0.20	0.00	3.38	0.37	1.05
Coworkers	4.04	0.40	43.75	3.36	0.24	11.38	3.70	0.14	12.10	3.38	0.29	12.70
Nature of work	4.75	0.46	64.58	4.20	0.25	20.06	4.46	0.17	20.16	4.22	0.28	21.78
Communication	3.98	0.47	25.00	3.44	0.26	14.09	3.61	0.21	12.90	3.46	0.29	14.39
Overall Job Satisfaction	3.88	0.30	24.54	3.32	0.16	6.63	3.55	0.11	7.17	3.33	0.20	7.38

Notes: * total of "strongly and moderately" satisfied

condition, professional experience and employment status [$P < 0.001$], gender [$P = 0.021$] and marital status [$P = 0.022$], but no significant difference with respect to age [$P = 0.319$]. Also, there is a significant difference in respondents' satisfaction with fringe benefits with respect to gender, level of education, employment status, professional experience, economic condition [$P < 0.001$], age [$P \leq 0.001$] and marital status [$P = 0.002$] at 0.05 level of significance.

Similarly, there is a significant difference in the level of satisfaction with contingent rewards of respondents with respect to level of education, employment status, professional experience, economic condition [$P < 0.001$], gender [$P = 0.007$], age [$P = 0.004$] and marital status [$P = 0.029$] at 0.05 level of significance. Yet, there is a significant difference in the level of satisfaction of respondents with operating conditions with respect to level of education, employment status, professional experience and economic condition [$P < 0.001$], gender [$P = 0.008$], age [$P \leq 0.001$] and marital status [$P = 0.085$]. Again, there is a significant difference in their satisfaction with co-workers with respect to level of education, economic condition, professional experience and employment status [$P < 0.001$], gender [$P = 0.005$], marital status [$P = 0.012$] and age [$P = 0.022$]. Additionally, a significant difference was observed in their level of satisfaction with the nature of the work with respect to level of education, professional experience, economic condition, employment status [$P < 0.001$], marital status [$P \leq 0.001$], gender [$P = 0.005$], but no significant difference with respect to age [$P = 0.245$]. Finally, there is a significant difference in satisfaction with communication with respect to level of education, professional experience, employment status [$P < 0.001$], age [$P = 0.004$] and gender [$P = 0.070$], but no significant difference with respect to marital status [$P = 0.123$].

Reliability analysis

The overall coefficient Cronbach's α of Spector's Job Satisfaction Survey was 0.91 and the internal consistency values of each dimension ranged from 0.61 to 0.77. Also, the findings showed that JSS had good split-half reliability as assessed through the Guttman Split-Half Coefficient [0.81]. Generally, values of

Cronbach's alpha $0.60 \leq \alpha < 0.80$ imply satisfactory reliability and if $0.80 \leq \alpha < 1.00$ the scale is highly reliable (8).

The overall coefficient Cronbach's α for Doctors was 0.91 and the internal consistency values of each dimension ranged from 0.44 to 0.76. For Nurses, the overall coefficient Cronbach's α was 0.85 and the internal consistency values of each dimension ranged from 0.43 to 0.73. Finally, for Other Health Professionals, the overall coefficient Cronbach's α was 0.90 and the internal consistency values of each dimension ranged from 0.38 to 0.69.

Discussion

When healthcare organizations find people, who meet their job requirements and are satisfied with what is offered, then a win-win situation is created between the organization and the employees and the quality of care improves (10). Many researchers suggest that in health care systems seeking to enhance patients' perceptions of the quality of services, managers should increase employees' self-efficacy and job satisfaction and reduce their role conflict and ambiguity (11). Unfortunately, more and more studies have demonstrated the fact that PHPs' job satisfaction is not high (12). In the present study, we found that PHPs were rather ambivalent, neither satisfied nor dissatisfied. Employees were dissatisfied with the salary and opportunities for promotion and ambivalent regarding fringe benefits, operating procedures and contingent rewards. Moreover, they receive satisfaction from the nature of work, supervision and co-workers. However, our data showed that there were many differences between PHC work groups (physicians, nurses, other health professionals). Different satisfaction rates were in fact expected as the healthcare professionals surveyed had different job descriptions and requirements.

This study showed that primary healthcare physicians [27.6% of sample] tend to be ambivalent, neither satisfied nor dissatisfied [mean=3.93]. Satisfaction was expressed regarding supervision [4.82], nature of work [4.77], colleagues [4.71] and communication [4.35]. It appears that professional identity, recognition from colleagues and patients as well as the wider social environment enhance the belief that one's career will be

rewarded by the profession, which in turn creates a higher level of job satisfaction. Conversely, slight dissatisfaction was found for salaries [2.93] and ambivalence for operating procedures [3.04] and promotion [3.29]. In addition to caring for patients, it seems that often many additional tasks are assigned such as document preparation, reporting, documentation requirements or attending meetings. Several other studies have shown that PHC physicians expressed dissatisfaction with administrative responsibilities in their daily job that may fall outside of their professional role and could be regarded as unreasonable or unnecessary (13,14).

Primary healthcare nurses and midwives [51% of sample] overall stated ambivalence, that is no satisfaction or dissatisfaction [3.53]. Satisfaction was found for the nature of work [4.41], supervision [4.36], coworkers [4.22] and communication [4.20]. Nevertheless, it was found that dissatisfaction comes from dimensions such as salaries [2.20], promotion [2.75], fringe benefits [2.89] and ambivalence from contingent rewards [3.12] and operating procedures [3.38]. About half of the sample [51%] in this study consisted of professionals of this working group. Similarly, other health professionals [21.4% of sample] consisting of administrative, lab assistants, technical and auxiliary personnel who provide services for the operation of a PHC, expressed overall their ambivalence or indifference [3.54]. Satisfaction was found regarding supervision [4.56], nature of work [4.54], coworkers [4.30] and communication [4.10]. On the other hand, dissatisfaction resulted from salaries [2.11], promotion [2.48] and fringe benefits [2.79], whereas ambivalence from contingent rewards [3.21] and operating procedures [3.16]. It is necessary for these categories of healthcare employees, to be motivated by factors such as pay, promotion, fringe benefits and contingent rewards so that they become more satisfied with their work. Those findings are in accordance with the findings of previous studies (15-17).

Examining PHPs' job satisfaction based on several descriptive characteristics revealed a number of notable findings that are similar to those of other studies. First of all, this study found a significant association between job assignment and job satisfaction. That is, differences observed in the level of satisfaction may

be due to the different roles assigned to the different professionals groups (18). Moreover, the effect of age on job satisfaction among the PCPs was significant in the present study, as older age is associated with greater job satisfaction. Many other studies have also shown a relationship between age and job satisfaction. Typically, older physicians and nurses are more experienced and thus tend to be more comfortable or used to current work conditions, which may lead to a greater level of satisfaction (19). The majority of the respondents were between 46-55 years. Furthermore, it was found that male professionals were more satisfied compared to females; female respondents [78%] were the majority in this study. The overall educational level of study participants was quite high; two out of three reported having a bachelor's degree or higher and were more satisfied than those without a degree. Lastly, we found that PHPs with a higher income were more likely to be satisfied with their jobs (14,17,20).

This survey was carried out in the midst of the pandemic crisis of Covid-19, as on 13 March 2020 the WHO declared Europe as the epicentre of the pandemic (9). As a result, our survey was dichotomized in two periods, before and after March 13, 2020 (Table 2). In fact, was found that a great number of the respondents were mostly approached in the pre-Covid period [696; 69% of total]. These had an average level of overall job satisfaction 3.63 out of 6 [Doctors 3.95, Nurses 3.42 and Other Health Professionals 3.44]. After the 13th of March 2020, the first wave of the covid-19 pandemic occurred and employees' [311; 31% of total] average level of overall job satisfaction declined to 3.33 out of 6 [Doctors 3.88, Nurses 3.32 and Other Health Professionals 3.55]. During this period, Greece was still struggling to recover from a bailout programme by international creditors and three Economic Adjustment Programmes and austerity measures. PHCs' employees worked longer hours than usual with no days off and took on more responsibilities as they actively participated in the vaccination program against Covid-19 without special rewards.

Other studies that focused on primary health care in Greece note that there is a general shortage of staff in the workforce of PHCs (mainly for physicians and nurses), lack of educated and trained professionals, few opportunities for continuing education and

further studies, less career development opportunities, poor working environment and insufficient economic resources. The average working week of physicians is around 50 hours. PHCs book appointments by phone or via the internet but rarely provide e-mail consultations or have a practice web site. An average consultation with a physician takes between 10 and 15 minutes, depending on the reason for the encounter. It takes less than 10 minutes when the patient is asking for a prescription and more than 15 minutes for a new health problem (21). There is a lack of patient referral mechanism; therefore patients can have direct access to secondary even tertiary healthcare services or private care units increasing out-of-pocket payments (22). In a survey carried out, 25% of primary care patients reported low quality of health services (23). The above-mentioned has led the Greek primary care system to be deemed ineffective, with defects both in its structure, economic conditions and capacity development, and in service delivery mechanisms in terms of access, continuity and completeness of primary care (24).

In secondary healthcare, similar findings have emerged regarding the levels of job satisfaction. In a survey of 3,278 healthcare employees, the average overall job satisfaction indicates ambivalence [3.33 out of 6]. The category with the lowest score in job satisfaction was that concerning salaries [2.12]. Questions related to promotion [2.45], additional benefits [2.67], operating procedures [2.82] and contingent rewards [2.91] received low job satisfaction rates. Instead, the categories that garnered positive job satisfaction concerned questions related to the supervision [4.66], the nature of work [4.34], and co-workers [4.25]. Communication received 3.79. Consequently, job satisfaction is lower in secondary, as compared to primary healthcare settings, especially in dimensions associated with communication, operational procedures, contingent rewards, and the nature of work (25).

In European countries, researchers in Germany and England that focused on primary care reported low levels of job satisfaction, 62.6% and 65.1%, respectively (26). In Switzerland, primary care physicians reported the highest level of satisfaction with 'freedom of working method' and the lowest satisfaction for 'hours of work' and 'income'. What is more, some aspects of job satisfaction were rated higher by female rather than

male physicians, emphasizing the role of gender (5,27). In Spain, a study showed that there was a negative association between overall satisfaction and years working in primary healthcare. Low levels of satisfaction were associated to high scores in emotional exhaustion and depersonalisation scales, and low scores in personal accomplishment scale (28). In a survey among primary care physicians conducted in Estonia, Finland, Germany, Hungary, Spain, Italy and Lithuania, a total of 1,331 primary care physicians responded to the survey. More than half of the participants [68.6%] were satisfied but there was also a lower satisfaction evidenced for those working in public services. And it seems that the structure of primary care itself affects professional satisfaction. At the individual level, years of experience seems to be associated with higher professional satisfaction (29). In Lithuania, 75.5% of PHC physicians reported a relatively low level of overall satisfaction and stated that they would not recommend their children to choose their profession. Important factors influencing their dissatisfaction were low salaries and compensation, work-related stress, social status and workload. However, the relationship with colleagues was one of the most important factors that resulted in job satisfaction (30). In Norway physicians turned out to be the most satisfied professionals [91.9%] in Europe. They were more satisfied with the ability to apply their skills, cooperation, variety in work tasks, and freedom to choose their method of work (31). It appears that in many European countries, physicians' workload is considered sustainable when they have less than 25 face-to-face consultations a day and spend more than 20 min for consultation (32).

In Greece, there are no official data from the ministry of health or other official institutions to evaluate the job satisfaction of the Greek healthcare system; however there are important unanswered questions that need to be addressed (33). For instance, are organizations' employees motivated? Do employees like working in their current post? How high is employee turnover? Given these issues, a reliable and multidimensional tool like JSS needs to be adopted and used frequently in order to assess the many aspects of work behavior, such as motivation, satisfaction, performance, engagement, burnout, stress, mental health, well-being, flexibility, reinforcement, organizational support, the impact of teamwork attitude, internal quality, etc (34,35).

Conclusion

Human resources are the main factor that ensures quality in health care services. Our results showed that the job satisfaction levels of the PHPs indicate ambivalence, neither satisfaction nor dissatisfaction. Interestingly, we can identify salaries and allowances, recognition and appreciation, promotion and advancement opportunities, limited resources or facilities, bureaucracy and other problems in operating procedures as the crucial determinants of poor job satisfaction. Dissatisfaction may lead to a higher turnover or brain drain and usually dissatisfied primary care professionals are more likely to express difficulties in caring for patients, thus leading to suboptimal healthcare delivery. Over the past two decades, numerous studies have established that effective primary care can lead to improved population health, reduced costs in primary care and waiting times, contribute to reduced secondary care costs, conserved human and material resources, increased self-confidence for professionals, and continuity of care.

Limitations of the study

The study did not cover all Greek Regional Health Authorities. As conditions surrounding primary care professionals' job satisfaction are changing constantly, our survey refers to the particular survey period and may not capture current perceptions.

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